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Agenda - Final Revised

Thursday, May 28, 2020

10:00 AM

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Los Angeles, CA 90012

Board of Directors - Regular Board Meeting

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Hilda Solis, 2nd Vice Chair

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Mike Bonin

Jacquelyn Dupont-Walker

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Ara Najarian

Mark Ridley-Thomas

John Bulinski, non-voting member

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(ALSO APPLIES TO BOARD COMMITTEES)

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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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CALL TO ORDER

ROLL CALL

1. APPROVE Consent Calendar Items: 2, 6, 7, 8, 9, 11, 15, 17, 22, 23, 24, 25, 26, 27, 30, 31, 32, 38, and 38.1.

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

CONSENT CALENDAR

2. **SUBJECT: MINUTES** [2020-0315](#)

RECOMMENDATION

APPROVE Minutes of the Regular Board Meeting held April 23, 2020.

Attachments: [Regular Board Meeting MINUTES - April 23, 2020](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0-1):

6. **SUBJECT: HIGHWAY PROGRAM PROJECT DELIVERY PROFESSIONAL SERVICES ON-CALL** [2020-0276](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. AWARD four, three-year base on-call contracts, with two, one-year option terms, Contract Nos. AE67946000, AE67946001, AE67946002, AE67946003 to HNTB Corporation, Parson Transportation Group, TranSystems Corporation and WKE, Inc. respectively, for a total not-to-exceed amount of \$40,000,000 for the initial three-year base contract, and \$5,000,000 for each one-year option term, for a total not to exceed amount of \$50,000,000, for Highway Program Project Delivery Support Services and other related work, subject to resolution of protest(s), if any, and
- B. EXECUTE or delegate the execution of Task Orders within the approved not to exceed cumulative value of \$50,000,000.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

7. SUBJECT: DRAFT 2020 LONG RANGE TRANSPORTATION PLAN [2019-0882](#)

RECOMMENDATION

APPROVE the release of Draft 2020 Long Range Transportation Plan (LRTP) for public comment.

Attachments: [Attachment A - Draft 2020 Long Range Transportation Plan \(LRTP\).5.6.2020 Presentation \(2\)](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

8. SUBJECT: FIRST/LAST MILE PLAN FOR PURPLE LINE EXTENSION SECTIONS 2 & 3 [2020-0111](#)

RECOMMENDATION

CONSIDER:

- A. ADOPTING First/Last Mile Plan for Purple Line Extension Sections 2 & 3; and
- B. DIRECTING staff to return to the Board with implementation recommendations following completion of the First/Last Mile Guidelines.

Attachments: [Attachment A – Purple Line Extension Sections 2&3 First/Last Mile Plan Execut](#)
[Attachment B - Purple Line Extension Sections 2&3 First/Last Mile Plan \(Core a Presentation](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

9. SUBJECT: METRO AFFORDABLE TRANSIT CONNECTED HOUSING PROGRAM [2020-0208](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING revisions to the Metro Affordable Transit Connected Housing Program (MATCH Program), as further described in Attachment A; and
- B. AUTHORIZING the CEO or his designee to execute necessary

agreements and amendments to agreements related to the MATCH Program.

Attachments: [Attachment A - Revised MATCH Guidelines](#)
[2020-0208 MATCH Program PPT](#)

PLANNING AND PROGRAMMING COMMITTEE (4-0) AND EXECUTIVE MANAGEMENT COMMITTEE (5-0) MADE THE FOLLOWING RECOMMENDATION:

11. SUBJECT: CENTINELA GRADE SEPARATION [2020-0199](#)

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING the Centinela Grade Separation Screening Analysis for Design Concepts/Engineering Design Report;
- B. APPROVING Project Definition as an Aerial Grade Separation at the Florence/Centinela Crossing of the Crenshaw/LAX Line supported by Bus Bridging during the Construction Period;
- C. FILING an environmental Statutory Exemption pursuant to CEQA;
- D. Authorizing staff to proceed with preliminary engineering and final design services on the Centinela Grade Separation. This is not a request for construction funding.

Attachments: [Attachment A - Map of Inglewood Projects](#)
[Attachment B- Centinela Grade Separation Screening Analysis for Design Conc](#)
[Attachment C - Rendering of Above-Ground Aerial Grade Separation Presentation](#)

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

15. SUBJECT: MEMBERSHIP ON METRO'S SAN FERNANDO VALLEY SERVICE COUNCIL [2020-0313](#)

RECOMMENDATION

APPROVE Leslie Aguirre for membership on Metro's San Fernando Valley Service Council.

Attachments: [Attachment A - Listing of Qualifications](#)
[Attachment B - Nomination Letters](#)

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

17. SUBJECT: P2000 COUPLER ASSEMBLY OVERHAUL

[2020-0103](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 60-month, Indefinite Delivery/Indefinite Quantity (IDIQ) Contract No. MA6264000, to Wabtec Passenger Transit Corporation, Spartanburg, South Carolina, for P2000 Light Rail Vehicle (LRV) Coupler Assembly overhaul services. This award is a not-to-exceed amount of \$2,895,984 subject to resolution of protest(s), if any.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

22. SUBJECT: SOUNDWALL PACKAGE 11 HIGHWAY PROJECT
ACTION: CONTRACT MODIFICATION

[2020-0284](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

EXECUTE Modification No. 19 to Contract No. C39033C1101-2 Soundwall Package 11 Highway Project for work above and beyond the original scope of services. This additional work is within the LOP budget and increases the total contract price in the amount of \$860,000, from \$66,041,760 to \$66,901,760.

Attachments: [ATTACHMENT A - PROCUREMENT SUMMARY](#)
 [ATTACHMENT B - CONTRACT MODIFICATION & CHANGE ORDER LOG](#)
 [ATTACHMENT C - DEOD SUMMARY](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0-1):

23. SUBJECT: SYSTEMS ENGINEERING AND SUPPORT SERVICES

[2020-0170](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

A. An increase in total authorized funding for Contract No. AE47810E0128 with SECOTrans (Joint Venture of LTK Engineering Services, NBA Engineering Inc., Pacific Railway Enterprises Inc., and Ramos Consulting Services, Inc), for pending and future Task Orders to provide systems engineering and support services in the amount of \$22,500,000 for 1 year,

increasing the total contract value from \$43,932,000 to \$66,432,000 through Fiscal Year 2021; and

- B. The Chief Executive Officer (CEO) or designee to execute individual Task Orders and Contract Modifications within the Board approved contract funding amount.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)
 [Attachment C - Proposed Task Order Work List](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

24. SUBJECT: TUNNEL ADVISORY PANEL

[2020-0267](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. Execute Contract Modification No. 11 to Contract No. PS-2020-1055 with **Dr. Geoffrey R. Martin for the continuation of Tunnel Advisory Panel Services**, in an amount not-to-exceed \$910,475, increasing the total contract value from \$2,090,006 to \$3,000,481 and extend the contract from July 1, 2020 to June 30, 2023;
- B. Execute Contract Modification No. 6 to Contract No. PS-8510-2493 with **Dr. Edward J. Cording, for the continuation of Tunnel Advisory Panel Services**, in an amount not-to-exceed \$923,457, increasing the total contract value from \$2,075,778 to \$2,999,235 and extend the contract from July 1, 2020 to June 30, 2023; and
- C. Negotiate and Execute sole source Contract No. PS-1620-1000, with **Dr. Thomas O'Rourke**, for Tunnel Advisory Panel Services, in an amount not-to-exceed \$947,457, from June 1, 2020 to June 30, 2023.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - Contract Modification - Change Log](#)
 [Attachment C - DEOD Summary](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0-2):

25. SUBJECT: PROGRAM MANAGEMENT SUPPORT SERVICES

[2020-0283](#)

RECOMMENDATION

AUTHORIZE:

- A. An increase in authorized funding for Contract No. AE35279 with Kal Krishnan Consulting Services/Triunity Engineering and Management Joint Venture (KTJV), for pending and future Contract Work Orders to provide Program Management Support Services (PMSS) in an amount not-to-exceed \$12,041,501, increasing the current authorized funding limit from \$51,306,204 to \$63,347,705 through FY21;
- B. The Chief Program Management Officer or designee to execute individual Contract Work Orders (CWOs) and Contract Modifications within the Board approved contract funding amount.

Attachments:

[Attachment A - Procurement Summary](#)

[Attachment B - Contract Work Order Modification Log](#)

[Attachment C - DEOD Summary](#)

[Attachment D - Current Support Provided by Project Category](#)

[Attachment E - Current and Anticipated List of Projects](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0-1):

**26. SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES)
CONSULTANT SERVICE CONTRACT**

[2020-0286](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. EXERCISE a one-year extension option for Task Order Contract No. AE36687 with Mott MacDonald Group for Supplemental Engineering Services for Engineering Design of Rail and Highway Transportation Projects, extending the period of performance from June 22, 2020 through June 22, 2021.
- B. INCREASE the total contract value for Contract No. AE36687 with Mott MacDonald Group for Supplemental Engineering Services for Engineering Design for Rail and Highway Transportation Projects not-to-exceed \$2,500,000 increasing the total contract value from \$15,000,000 to \$17,500,000. Work will only be authorized by specific task orders, funded by specific project budgets.

**EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION
(4-0):**

31. SUBJECT: FILMING LIAISON ON THE METRO SYSTEM

[2020-0282](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award Contract No. PS66940000 for filming liaison services to The Hollywood Locations Company, Inc. for 5 years, generating an estimated \$1,500,000 revenue for Metro, subject to resolution of protest(s), if any.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)

**EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION
(4-0):**

**32. SUBJECT: METRO SYSTEM ADVERTISING (LICENSE TO SELL AND
DISPLAY ADVERTISING ON BUS AND RAIL)**

[2020-0306](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. EXECUTE Modification No. 3 to Contract No. PS41099B - License to Sell and Display Advertising on Metro Bus System, with OUTFRONT Media Group, LLC, to temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract, with monthly payments of 55% of actual sales revenues, from May 15, 2020 to December 31, 2020, and to re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020; and

- B. EXECUTE Modification No. 1 to Contract No. PS41099R - License to Sell and Display Advertising on Metro Rail System, with Intersection Parent, to temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract, with monthly payments of 55% of actual sales revenues from May 15, 2020 to December 31, 2020, and to re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020.

Attachments: [Attachment A - Revenue Advertising Update Presentation](#)
 [Attachment B - Revenue Change Summary](#)
 [Attachment C - Procurement Summary](#)
 [Attachment D - Change Order Modification Log](#)
 [Attachment E - DEOD Summary](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION AS AMENDED (5-0):

38. SUBJECT: CRENSHAW/LAX TRANSIT PROJECT [2020-0319](#)

RECOMMENDATION

CONSIDER amending the Life-of-Project (LOP) budget by \$90,000,000 for the Crenshaw/LAX Transit Project (Project) of \$2,058,000,000 to \$2,148,000,000, consistent with the provisions of the Board-adopted Measure R and Measure M Unified Cost Management Policy (Attachment B).

- Attachments:**
- [Attachment A - Funding-Expenditure Plan](#)
 - [Attachment B - Measure R and Measure M Unified Cost Management Policy An](#)
 - [Attachment D - SBCCOG letter to Metro CEO re SREP funds for Crenshaw ove](#)
 - [Attachment C - Projected Breakdown of Cost Allocation for 90 million 5_14_202](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

38.1. SUBJECT: CRENSHAW/LAX TRANSIT PROJECT [2020-0356](#)

RECOMMENDATION

APPROVE Amending Motion by Directors Garcetti, Butts, Garcia and Hahn directing the CEO to:

- A. Allocate \$33.1 million of CMAQ, plus the revenue generated from LAWA acquisition of property and easements (at least \$1.7 million) to fund immediate LOP budget needs on the Crenshaw/LAX project.
- B. After taking CMAQ and LAWA-generated revenues off the top, approve the use of Subregional Equity Program (SEP) funding for the remainder of the \$90 million Crenshaw/LAX LOP budget increase, subject to formal approval from each subregion’s governing body and according to the 2016 subregional borders designating the LAX area as a Regional Facility and conforming the South Bay subregion to the South Bay COG's boundaries:

Subregion	Miles	Percent
Central Los Angeles	3.40	41.4%
South Bay	3.32	40.4%
Regional Facility: LAX Area	1.50	18.2%
Total	8.22	100.0%

These SEP funds shall be escalated from 2015 dollars in accordance with Board file 2019-0598, which reaffirmed that each subregion's SEP

allocation as listed in the Measure M Expenditure Plan (line item 68,note s.) is listed in 2015 dollars and escalated to year-of expenditure in accordance with the escalation policies in the Measure M expenditure plan;

- C. Defer any future recommendation or use of any unprogrammed SEP funding pending the development, in partnership with all Board offices, of a uniform process by which Subregions can elect to use SEP funding, including but not limited to:
 - 1. Subregional governing body approval of any funding recommendation and use;
 - a. Hereby acknowledging that the South Bay COG has already committed the entire South Bay SEP for the Centinela Grade Separation Project.
 - 2. Written notice to the respective Subregional governing body and representative Board offices at least 120 days before Metro recommends the use of SEP funding to ensure adequate time for subregions to understand and approve any funding recommendations;
 - 3. Standard and explicit criteria for how and when a subregion's SEP allocation may be accelerated to meet their needs, consistent with Board file 2019-0598 (see above);

- D. Report back on all the above during the September 2020 Board cycle.

NON-CONSENT

3. **SUBJECT: REMARKS BY THE CHAIR** [2020-0362](#)

RECOMMENDATION

RECEIVE remarks by the **Chair**.

4. **SUBJECT: REPORT BY THE CHIEF EXECUTIVE OFFICER** [2020-0363](#)

RECOMMENDATION

- RECEIVE report by the **Chief Executive Officer**.

**PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING
RECOMMENDATION AS AMENDED (4-0):**

5. SUBJECT: SAN GABRIEL VALLEY TRANSIT FEASIBILITY STUDY

[2020-0255](#)

RECOMMENDATION

RECEIVE AND FILE the response to Board Motion Item 8.1 (Attachment A, Legistar File 2020-0172) on the February 2020 Board report, Eastside Transit Corridor Phase 2 (Attachment B, Legistar File 2020-0027) directing staff to:

- 1) Prepare a feasibility study to evaluate high-quality transit service options to serve the San Gabriel Valley, and
- 2) Include recommendations for a Funding Plan for the San Gabriel Valley and Gateway Cities subregions that encompasses Measure R and Measure M funding for Eastside Transit Corridor Phase 2 to demonstrate subregional equity.

Attachments: [Attachment A - Metro Board Motion Item 8.1 \(Legistar File 2020-0172\)](#)
[Attachment B - Metro Board Report Item 8 \(Legistar file 2020-0027\)](#)
[Presentation](#)

**PLANNING AND PROGRAMMING COMMITTEE RECOMMENDED APPROVAL OF THE
FOLLOWING AMENDING MOTION (4-0):**

5.1. SUBJECT: SAN GABRIEL VALLEY TRANSIT FEASIBILITY STUDY

[2020-0368](#)

RECOMMENDATION

APPROVE Amending Motion by Directors Solis and Fasana

WE THEREFORE MOVE that the Board direct the CEO to report back in 30 days with recommendations to transfer funding to the San Gabriel Valley Council of Governments as part of the FY21 budget for the procurement and completion of the Feasibility Study. Recommendations should include provisions typical of Metro procurements such as small, disadvantaged, and/or disabled veteran business enterprise goals.

PLANNING AND PROGRAMMING COMMITTEE FORWARDED THE FOLLOWING WITHOUT RECOMMENDATION:

10. **SUBJECT: I-710 ADDITIONAL FUNDING FOR THE DESIGN PHASE OF THE SHOEMAKER BRIDGE REPLACEMENT PROJECT** [2020-0326](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

APPROVE programming of additional \$12.9 million in Measure R I-710 Early Action projects funds for the design phase of the Shoemaker Bridge Replacement Project (Project); and

EXECUTE the necessary agreement(s) with the City of Long Beach to advance the Project.

12. **SUBJECT: MANAGEMENT AUDIT SERVICES FY 2020 THIRD QUARTER REPORT** [2020-0293](#)

RECOMMENDATION

RECEIVE AND FILE Management Audit Services (MAS) quarterly report for the period ending March 31, 2020.

Attachments: [Attachment A - MAS Third Quarterly FY2020 Report Presentation](#)

(FORWARDED FROM MAY FINANCE, BUDGET, AND AUDIT COMMITTEE DUE TO LACK OF QUORUM)

13. **SUBJECT: CONTINUING RESOLUTION FOR FISCAL YEAR 2021 BUDGET** [2020-0310](#)

RECOMMENDATION

A. ADOPT a continuing resolution to extend FY20 budget authorization for one quarter into FY21 until September 2020 when Fiscal Year 2021 (FY21) budget is considered for Board adoption

B. AUTHORIZE the CEO to execute the adopted continuing resolution through first quarter of FY21 until October 1, 2020

C. AUTHORIZE the extension of all annual Operating and Fare subsidy Memorandums of Understanding (MOUs) subject to available funds until such time as the FY21 budget is adopted

(FORWARDED FROM MAY FINANCE, BUDGET, AND AUDIT COMMITTEE DUE TO LACK OF QUORUM)

WITHDRAWN ITEM 13.1:

13.1. SUBJECT: REDONDO BEACH TRANSIT CENTER URGENCY MOTION

[2020-0378](#)

RECOMMENDATION

~~APPROVE Motion by Directors Butts and Hahn that the Board:~~

~~Approve authorizing funding of additional \$2.75 million from the South Bay Measure M TSMIP II MSP account for the SBCCOG Redondo Beach Transit Center project with the Measure R Operational Highway funds programming in June.~~

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE RECOMMENDED REJECTING THE FOLLOWING (4-0):

18. SUBJECT: WASTE MANAGEMENT SERVICES

[2020-0312](#)

RECOMMENDATION

CONSIDER:

AUTHORIZING the Chief Executive Officer to:

- A. AWARD an indefinite delivery indefinite quantity Contract No. OP1484230003367 to American Reclamation, Inc. to provide waste management services throughout Metro B Line (Red), Metro G Line (Orange), Pasadena L Line (Gold) and various bus and rail locations within the geographical area, specified as the North Region, for a not-to-exceed amount of \$3,904,317 for the five-year base period, and \$1,571,479 for the one, two-year option term, for a combined not-to-exceed amount of \$5,475,796, effective June 1, 2020 through May 31, 2027, subject to resolution of protest(s), if any; and
- B. AWARD an indefinite quantity/delivery Contract No. OP1484240003367 to American Reclamation, Inc. to provide waste management services throughout Metro A Line (Blue), Metro C Line (Green), E Line (Expo), Gateway Headquarters Building and various bus and rail locations within the geographical area, specified as the South Region, for a not-to-exceed amount of \$3,218,989 for the five-year base period, and \$1,325,033 for the one, two-year option term, for a combined not-to-exceed amount of \$4,544,022, effective June 1, 2020 through May 31, 2027, subject to resolution of protest(s), if any.

Attachments: [Attachment A - Region Maps](#)
 [Attachment B - Procurement Summary](#)
 [Attachment C - DEOD Summary](#)

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE RECOMMENDED APPROVAL OF THE FOLLOWING SUBSTITUTE MOTION (4-0):

18.1. SUBJECT: WASTE MANAGEMENT SERVICES [2020-0370](#)

RECOMMENDATION

Approve Substitute Motion by Director Bonin directing the CEO to:

Reject staff recommendation from Item 18. Extend the current contracts with Republic Services on a month to month basis; resolicit the contract including past performance to include safety, labor, and environmental standards at least as stringent as the City of Los Angeles waste hauling franchise system as part of selection criteria.

CONSTRUCTION COMMITTEE FORWARDED THE FOLLOWING WITHOUT RECOMMENDATION:

20. SUBJECT: 2020 LOS ANGELES CONSTRUCTION MARKET ANALYSIS [2020-0212](#)

RECOMMENDATION

RECEIVE AND FILE status report on the 2020 Los Angeles Construction Market Analysis report.

Attachments: [Attachment A - Construction Market Analysis 2020](#)
[Attachment B - Metro Construction Market Analysis Addendum](#)

PLANNING AND PROGRAMMING COMMITTEE FORWARDED THE FOLLOWING WITHOUT RECOMMENDATION:

33. SUBJECT: MOBILITY ON DEMAND PILOT PROJECT [2020-0349](#)

RECOMMENDATION

RECEIVE AND FILE Mobility on Demand Pilot Project report.

Attachments: [Attachment A - Summary of Research Findings](#)

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE FORWARDED THE FOLLOWING WITHOUT RECOMMENDATION:

34. SUBJECT: ORAL REPORT ON COVID-19 SERVICE UPDATE [2020-0102](#)

RECOMMENDATION

RECEIVE oral report on COVID-19 Service Update.

Attachments: [Presentation](#)

34.1. SUBJECT: COST CONTROL PERTAINING TO COVID-19

[2020-0380](#)

RECOMMENDATION

CONSIDER

Review and Approval of the CEO's call to action to control costs pertaining to COVID-19.

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION AS AMENDED (4-0):

36. SUBJECT: EMERGENCY RELIEF: FULL-PRICE PASSES

[2020-0355](#)

RECOMMENDATION

APPROVE Motion by Directors Garcetti, Solis, Hahn, Kuehl and Butts directing the CEO to:

- A. Provide relief for current frequent riders by initiating the sale of promotional passes at 50% the cost of full-price passes:
 1. Promotional Day Pass: \$3.50
 2. Promotional 7-Day Pass: \$12.50
 3. Promotional 30-Day Pass: \$50.00;
- B. Provide these promotional passes for not less than six months from the date regular boarding practices resume;
- C. In conjunction with the debut of these promotional passes, suspend the sale of full-price passes;
- D. Prepare a marketing plan to engage frequent riders on these fare changes, with particular focus on helping cash-paying frequent riders take advantage of these promotional fare products and transition to cashless, TAP-enabled payments;
- E. Develop recommendations for cost reductions of the Regional EZ Pass (Base and Zones 1 through 15) that meet the same affordability goals as the 50% pass reductions above;
- F. Report to the Executive Management Committee within 120 days after the initiation of the sale of promotional passes with a report on the status of pass sales and recommendations for permanent reductions to the cost of full-price passes that promote affordability by making break-even points more in line with industry standards; and

- G. Report to the Board in 120 days with an implementation plan for a fare capping/best fare system that allows riders to take advantage of pass products without having to put up money upfront.

EXECUTIVE MANAGEMENT COMMITTEE RECOMMENDED APPROVAL OF THE FOLLOWING AMENDING MOTION TO ADD ITEM H (4-0):

36.1. SUBJECT: EMERGENCY RELIEF: FULL-PRICE PASSES

[2020-0373](#)

RECOMMENDATION

APPROVE Amending Motion by Director Solis that the board direct the CEO to:

H. Report back to the Board in 30 days with recommendations to temporarily lower fares for all Metro-provided mobility services consistent with the reduced prices of passes in order to support riders once regular boarding practices resume. The report should consider recommendations to welcome back riders to Metro services as well as further adjustments as necessary to the price of promotional passes stated in Directive A in order to maintain high affordability.

39. SUBJECT: CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY (CARES) ACT FUNDING

[2020-0325](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING the allocation of CARES Act funding received by Los Angeles County as described in Attachment A.
- B. APPROVING fund exchanges of Federal CARES Act funding, as appropriate, with other local funding sources in order to provide administrative efficiencies, optimize and accelerate the distribution of resources.
- C. AUTHORIZING the Chief Executive Officer to negotiate and execute all necessary agreements to implement the recommended support of transit programs countywide.

- Attachments:**
- [Attachment A - Detailed Allocations by Operator.Agency v3](#)
 - [Attachment B - CARES Allocations & STax Losses](#)
 - [Attachment C-1 LACMOA Concurrence](#)
 - [Attachment C-2 Tier 2 Concurrence](#)
 - [Attachment C-3 Small Operators Concurrence](#)
 - [Attachment C-4 Access Concurrence](#)
 - [Attachment C-5 Metrolink Concurrence](#)
 - [Attachment C-6 PV Transit support letter](#)
 - [Attachment C-7 City of Avalon](#)
 - [Attachment C-8 CityofGlendora](#)
 - [Attachment C-9-TorranceTransit-Butts](#)
 - [Attachment C-9-TorranceTransit-Hahn](#)

40. SUBJECT: OPEN STREETS PROGRAM RESPONSE TO COVID-19 [2020-0375](#)

RECOMMENDATION

APPROVE Motion by Directors Garcetti, Solis, Garcia, Bonin, and Fasana that the Board authorize the CEO to negotiate administrative scope changes to awarded events in the Open Streets Grant Program, at the written request of the grantee, such that funds may be used for COVID-19 response Slow Streets or similar programs, including but not limited to:

- Expanding one-day events to longer-term temporary traffic interventions;
- Replacing a large, single-corridor event intended for regional audiences with many smaller, neighborhood-scale interventions catering to local audiences;
- Creating spaces within the public right-of-way to support economic activity such as dining and vending; and
- Providing education, encouragement, and monitoring for safe physical distancing in accordance with the Safer at Home Order in partnership with and supporting community-based leadership.

END OF NON-CONSENT

41. SUBJECT: CLOSED SESSION [2020-0364](#)

- A. Conference with Legal Counsel - Existing Litigation - G.C. 54956.9(d)(1)
1. Julius Branch v. LACMTA, Case No. BC 683330

SUBJECT: GENERAL PUBLIC COMMENT

[2020-0361](#)

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 #: 2020-0315, **File Type:** Minutes

Agenda Number: 2.

**REGULAR BOARD MEETING
MAY 28, 2020**

SUBJECT: MINUTES

RECOMMENDATION

APPROVE Minutes of the Regular Board Meeting held April 23, 2020.



Virtual Online Meeting

MINUTES

Thursday, April 23, 2020

10:00 AM

Board of Directors - Regular Board Meeting

DIRECTORS PRESENT:

**James Butts, Chair
Eric Garcetti, Vice Chair
Hilda Solis, 2nd Vice Chair
Kathryn Barger
Mike Bonin
Jacquelyn Dupont-Walker
John Fasana
Robert Garcia
Janice Hahn
Paul Krekorian
Sheila Kuehl
Ara Najarian
Mark Ridley-Thomas
John Bulinski, non-voting member**

Phillip A. Washington, Chief Executive Officer

CALLED TO ORDER: 10:04 A.M.

ROLL CALL

1. APPROVED Consent Calendar Items: 2, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 19, 20, 21, 23, 24*, 25, 27, 30, 32, 34, 34.1, 35, 36, and 37.

Consent Calendar items were approved by one motion except item 37 which was held by a Director for discussion and separate action.

*Item required 2/3 vote

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
A	Y	Y	A	Y	Y	Y	Y	Y	A	Y	Y	Y

2. **SUBJECT: MINUTES** **2020-0302**

APPROVED ON CONSENT CALENDAR Minutes of the Regular Board Meeting held February 27, 2020.

3. **SUBJECT: REMARKS BY THE CHAIR** **2020-0303**

RECEIVED remarks by the **Chair**.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
P	P	P	A	P	P	P	P	P	A	P	P	P

4. **SUBJECT: REPORT BY THE CHIEF EXECUTIVE OFFICER** **2020-0304**

RECEIVED report by the **Chief Executive Officer**.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
P	P	P	A	P	P	P	P	P	A	P	P	P

PK = P. Krekorian	HS = H. Solis	KB = K. Barger	RG = R. Garcia
JF = J. Fasana	JB = J. Butts	JDW = J. Dupont-Walker	
JH = J. Hahn	EG = E. Garcetti	MRT = M. Ridley-Thomas	
MB = M. Bonin	SK = S. Kuehl	AN = A. Najarian	

LEGEND: Y = YES, N = NO, C = HARD CONFLICT, S = SOFT CONFLICT ABS = ABSTAIN, A = ABSENT, P = PRESENT

5. SUBJECT: ORANGE LINE TERMINUS IMPROVEMENTS

2020-0192

APPROVED ON CONSENT CALENDAR:

- A. APPROVING the G (Orange) Line Terminus Improvement Project;
- B. CONCLUDING that the G Line Terminus Improvement Project is statutorily exempt from the California Environmental Quality Act pursuant to Public Resources Code Section 21080, Subdivisions (b) (10) and (b)(11) and CEQA Guidelines Section 15275, Subdivision (a); and
- C. AUTHORIZING Metro staff to file a Notice of Exemption with the County Clerk and the State Clearinghouse.

6. SUBJECT: EXTENSION TO REVENUE CONTRACT NO. PS097140250 2020-0211

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to approve the extension to revenue contract with All Vision, LLC, No. PS097140250 for an additional two years and three one-year options.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
		N										

7. SUBJECT: I-5 NORTH HIGH OCCUPANCY VEHICLE AND TRUCK LANES PROJECT FROM STATE ROUTE (SR)-14 to PARKER ROAD ENVIRONMENTAL MITIGATION AGREEMENT 2020-0220

AUTHORIZED ON CONSENT CALENDAR the CEO to execute a third-party Agreement with the California Department of Transportation (Caltrans) and Mountain Recreation and Conservation Authority (MRCA) to fund wetlands mitigation costs as stipulated in the Streambed Alteration Agreement associated with the implementation of the I-5 North Capacity Enhancements Project (the Project).

8. SUBJECT: 2021 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM 2020-0226

ADOPTED ON CONSENT CALENDAR the resolution for the 2021 Los Angeles County Transportation Improvement Program as shown in Attachment A.

9. SUBJECT: CAP-AND-TRADE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) 2020-0230

APPROVED ON CONSENT CALENDAR the Resolution in Attachment A that:

- A. AUTHORIZES the Chief Executive Officer (CEO) or his designee to claim \$39,098,039 in fiscal year (FY) 2019-20 LCTOP grant funds for the Electric Bus Charging Infrastructure Project;

(continued on next page)

(Item 9 – continued from previous page)

- B. CERTIFIES that Metro will comply with LCTOP certification and assurances and the authorized agent requirements; and
- C. AUTHORIZES the CEO or his designee to execute all required documents and any amendment with the California Department of Transportation.

10. SUBJECT: RESPONSE TO MOTION 8.1 - 710 CLEAN TRUCK PROGRAM 2020-0231

APPROVED ON CONSENT CALENDAR staff recommendation to program \$50 million in Metro-controlled funding sources, including but not limited to Measure R funds identified in the expenditure plan for the Interstate 710 South and/or Early Action Projects, as seed funding for the 710 Clean Truck Program, to be made available contingent upon a Record of Decision issued by the Federal Highway Administration for the Interstate 710 South Project

BONIN AMENDMENT: Money cannot be spent on fossil fuel infrastructure.

11. SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM ANNUAL UPDATE - NORTH COUNTY SUBREGION 2020-0232

A. APPROVED ON CONSENT CALENDAR:

1. Deobligation of \$4,226,964 previously approved Measure M Multi-Year Subregional Program (MSP) - Active Transportation Program, for re-allocation at the request of project sponsors, as shown in Attachment A;
2. Programming of additional \$12,750,000 within the capacity of Measure M MSP - Transit Program, as shown in Attachment B; and
3. Inter-program borrowing and programming of additional \$4,350,143 from the Subregion's Measure M MSP - Active Transportation and Transit Programs to the Highway Efficiency Program, as shown in Attachment C; and

- B. AUTHORIZED the Chief Executive Officer or his designee to negotiate and execute all necessary agreements and/or amendments for approved projects.

12. SUBJECT: PROPERTY INSURANCE PROGRAM 2020-0092

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to negotiate and purchase All Risk Property and Boiler and Machinery insurance policies for all property at the current policy limits at a not to exceed price of \$4.2 million for the 12-month period May 10, 2020 through May 10, 2021.

14. SUBJECT: PROPOSITION C BONDS

2020-0221

ADOPTED a resolution, Attachment A, that:

- A. AUTHORIZES the issuance of bonds to refund the Proposition C Series 2010-A Bonds, consistent with the Debt Policy to achieve approximately \$4.4 million in net present value savings over the three-year life of the bonds;
- B. APPROVES the forms of Notice of Intention to Sell Bonds, Notice Inviting Bids, Supplemental Trust Agreement, Escrow Agreement, Continuing Disclosure Certificate, Bond Purchase Contract and Preliminary Official Statement on file with the Board Secretary as set forth in the resolution all as subject to modification as set forth in the resolution; and
- C. AUTHORIZES taking all action necessary to achieve the foregoing, including, without limitation, the further development and execution of bond documentation associated with the issuance of the refunding bonds.

(REQUIRED SIMPLE MAJORITY BOARD VOTE)

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
A	Y	Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y

15. SUBJECT: MEASURE R BONDS

2020-0222

A. ADOPTED a Resolution, Attachment A, that:

- 1. AUTHORIZES Measure R Junior Subordinate Sales Tax Revenue Refunding Bonds in one or more series, to refinance one or more of Metro's Transportation Infrastructure Finance and Innovation Act ("TIFIA") Loans to achieve up to \$170 million estimated net present value savings over the 18-year life of the bonds through the negotiated bond sale of up to \$1.75 billion of bonds.
- 2. APPROVES the forms of the supplemental trust agreement, second amended and restated trust agreement, junior subordinate trust agreement, supplemental junior subordinate trust agreement, continuing disclosure certificate, preliminary official statement and such other documents as required for the issuance of the bonds, and approves related documents on file with the Board Secretary as set forth in the resolution all as subject to modification as set forth in the Resolution;
- 3. APPROVES the form of the bond purchase contract on file with the Board Secretary, that will be entered into with the underwriters as listed in Attachment B hereto; and

(continued on next page)

(Item 15 – continued from previous page)

- 4. AUTHORIZES taking all action necessary to achieve the foregoing, including, without limitation, the further development and execution of the bond purchase contract and bond documentation associated with the issuance of the Measure R Junior Subordinate Sales Tax Revenue Refunding Bonds (the "Refunding Bonds").
- B. ESTABLISHED an underwriter pool as shown in Attachment B that will be used to select underwriters for all future negotiated debt issues through June 30, 2024; and
- C. APPOINTED the underwriter team selected for the Refunding Bonds from the above underwriter pool as shown in Attachment B that will be used to market the refunding bonds.

(REQUIRED SIMPLE MAJORITY BOARD VOTE)

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
A	Y	Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y

16. SUBJECT: ANNUAL FINANCIAL AND COMPLIANCE AUDITS OF METRO AND ITS COMPONENT UNITS 2020-0250

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a five-year, firm fixed-price Contract No. PS64807000 to Crowe LLP to provide Annual Financial and Compliance Audit Services in the amount of \$1,836,135 effective April 24, 2020, subject to resolution of protest(s), if any.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
											S	

17. SUBJECT: CURRENCY PROCESSING SERVICES 2020-0246

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to execute Modification No. 3 to Contract No. OP39497-2000 to exercise three (3), one-year options with Los Angeles Federal Armored Services, Inc. to provide currency processing services, in the amount of \$572,000 for Option Year 2, \$629,000 for Option Year 3, and \$686,400 for Option Year 4, for a combined total amount of \$1,887,400, increasing the contract value from \$972,400 to \$2,859,800, and extending the contract term to December 31, 2022.

19. SUBJECT: MEMBERSHIP ON METRO'S SAN FERNANDO VALLEY SERVICE COUNCIL 2020-0201

APPROVED ON CONSENT CALENDAR Perri Sloane Goodman for membership on Metro's San Fernando Valley Service Council.

20. SUBJECT: PURCHASE OF THREE 35 TON TOW TRUCKS

2020-0247

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a firm fixed price contract OP66644000 to Los Angeles Truck Centers, LLC the lowest responsive and responsible bidder for three (3) 35-ton tow trucks for a firm fixed price of \$1,069,966.24 inclusive of sales tax.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
					S							

21. SUBJECT: PURCHASE OF THIRTY 1-TON UTILITY TRUCKS

2020-0248

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a firm fixed price contract under IFB OP67225 to Theodore Robins Ford the lowest responsive and responsible bidder for thirty (30) 1-ton utility trucks for a firm fixed price of \$1,417,782.25 inclusive of sales tax, subject to the resolution of any submitted protest(s).

23. SUBJECT: TIRE KITS FOR LIGHT RAIL VEHICLES

2020-0187

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a 36-month, firm fixed price contract under Bid No. SD634320000 to ORX Railway Corporation the lowest responsive and responsible bidder for Tire Kits for an amount not to exceed \$2,125,956 subject to resolution of protest(s), if any.

24. SUBJECT: BUS ENGINE COOLING SYSTEM REBUILD KITS

2020-0137

APPROVED ON CONSENT CALENDAR BY A 2/3 VOTE:

- A. FINDING that the procurement of Metro Bus Electric Cooling Systems under Public Utilities Code (PUC) Section 130237, as an Original Equipment Manufacturer (OEM) item, constitutes a single source procurement method for the purpose of duplicating equipment already in use; and
- B. AUTHORIZING the Chief Executive Officer to award a single source, five-year, Indefinite Delivery, Indefinite Quantity Contract No. MA66578000 to Engineered Machined Products, Inc. (EMP) for 810 kits to rebuild EMP engine cooling systems currently installed on Metro buses. The Contract three-year base amount for \$2,712,857 inclusive of sales tax, with the first one-year option in the amount of \$841,668, inclusive of sales tax, and the second one-year option in the amount of \$841,668, inclusive of sales tax for a total contract amount of \$4,396,193 subject to resolution of protest(s), if any.

(REQUIRED 2/3 BOARD VOTE)

25. SUBJECT: PUBLIC TRANSPORTATION AGENCY SAFETY PLAN 2020-0085

APPROVED ON CONSENT CALENDAR the PTASP which documents Metro's processes and activities related to Safety Management System (SMS) implementation in compliance with Federal and State regulations.

27. SUBJECT: I-5 NORTH CAPACITY ENHANCEMENTS FROM SR- 118 2020-0202 TO SR-134; SEGMENT 3

AUTHORIZED ON CONSENT CALENDAR Contract Modification No. 306 (CCO 306) by the California Department of Transportation (Caltrans) for the construction contract for Segment 3 (Empire) of I-5 North Capacity Enhancements Project between SR-134 and SR-118 (Project) in the amount not to exceed \$1.06 million under Funding Agreement No. MOU. P0008355/8501A/A9 within the LOP budget.

28. SUBJECT: SUSTAINABILITY ENGINEERING SERVICES FOR SOLID WASTE, RECYCLING AND HAZARDOUS WASTE COMPLIANCE 2020-0127

A. AUTHORIZED the Chief Executive Officer (CEO) to award a Cost Plus Fixed Fee Contract for a base period of performance of three (3) years, Contract No. AE61890, to Jacobs Engineering Group, Inc., for **Sustainability Engineering Services for Solid Waste, Recycling and Hazardous Materials and Waste Compliance**, for total Contract amount not-to-exceed \$11,047,603 for the 3 year baseline term and to exercise two one (1) year options, year one option not-to-exceed \$3,825,715 and year two option not-to-exceed \$3,954,885; and

B. AUTHORIZED the Chief Executive Officer (CEO) to execute changes and modifications within the Board approved not-to-exceed contract amount.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
Y	Y	C	C	Y	C	Y	Y	C	C	Y	C	Y

30. SUBJECT: WILLOWBROOK/ROSA PARKS STATION IMPROVEMENT PROJECT 2020-0154

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to increase the Life of Project Budget (LOP) Budget for Willowbrook/Rosa Parks Station Improvement Project (CP 210151) by \$18,998,400 from \$109,350,000 to \$128,348,400.

32. SUBJECT: STATE LEGISLATION 2020-0235

ADOPTED ON CONSENT CALENDAR staff recommended positions:

- Senate Bill 1366 (Archuleta) - Los Angeles County Metropolitan Transportation Authority: light rail: West Santa Ana Branch Transit Corridor. **WORK WITH AUTHOR**

34. SUBJECT: METRO PARKING MANAGEMENT PROGRAM AND SYSTEMWIDE PARKING OPERATOR SERVICES

2020-0225

APPROVED ON CONSENT CALENDAR:

- A. APPROVING revisions to Metro’s Parking Ordinance Administrative Code Title 8 (Attachment C) and Metro’s Parking Rates and Fee Resolution (Attachment D) in support of the implementation of the Parking Management Program.

- B. AUTHORIZING the Chief Executive Officer (“CEO”) to execute a five-year base period, firm fixed price Contract No. PS66007000 to L & R Auto Parks, Inc. DBA Joe’s Auto Parks for systemwide parking operator services in the amount of \$26,878,513 with two, one-year options, in the amounts of \$5,840,059 and \$7,651,918, respectively, for a total amount of \$40,370,490, through a revenue generating contract where the contractor will be compensated for their operating costs from the parking revenue collected and Metro will receive the net revenue amount collected, subject to resolution of protest(s) if any.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
					C				C			

34.1 SUBJECT: WEEKEND AND HOLIDAY FREE PARKING AT METRO LOTS

2020-0292

APPROVED ON CONSENT CALENDAR Motion by Director Fasana

Metro has successfully adopted best management practices in its parking program to assess demand and manage inventory for maximum public transit user benefit without negatively impacting adjacent neighborhoods. In continuing that effort, Metro should assess utilization at its transit stations in support of promoting transit ridership. In consultation with staff, Metro parking facilities typically have high demand or reach capacity on weekdays. However, transit user parking utilization is minimal and well below 30% on weekends and holidays at most Metro parking facilities.

- I, THEREFORE MOVE that the Board direct the CEO to:
 - A. Provide free parking for transit patrons at Metro parking facilities with 30% or below capacity on Saturday, Sunday and Federally Observed Holidays.

 - B. Union Station and any Metro parking facilities that have special arrangements/contracts with municipalities or local jurisdictions for public parking or other non-transit parking use are exempt from this motion.

35. SUBJECT: INVENTORY OF SUITABLE LOCATIONS FOR TEMPORARY HOMELESS HOUSING ON METRO LAND

2020-0228

APPROVED ON CONSENT CALENDAR:

1. RECEIVING AND FILING Metro Property Inventory for Temporary Sheltering of the Homeless Report (Attachment A); and
2. DELEGATING authority to the Chief Executive Officer (CEO) to enter into no-fee leases with local jurisdictions for temporary (less than five years) supportive homelessness-related facilities, including bridge housing for Metro-owned properties that do not have a conflicting transit or joint development purpose.

36. SUBJECT: TRANSPORTATION BUSINESS ADVISORY COUNCIL MEMBER APPOINTMENT

2020-0252

APPROVED ON CONSENT CALENDAR appointing the Chinese American Construction Professionals (CACP) organization to the Transportation Business Advisory Council membership.

37. SUBJECT: SOUTH BAY COG FIBER OPTIC RING URGENCY MOTION 2020-0290

APPROVED Motion by Directors Butts and Hahn that the Board:

Approve an immediate additional \$2.5 million from the South Bay Measure M TSMIP II account for the SBCCOG South Bay Fiberoptic Network project and amended into Funding Agreement #MM 5502.05 forthwith.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
Y	ABS	Y	Y	ABS	Y	Y	Y	Y	Y	Y	Y	N

40. SUBJECT: 103RD ST/WATTS TOWERS STATION JOINT DEVELOPMENT

2020-0184

AUTHORIZED the Chief Executive Officer ("CEO") to execute an Exclusive Negotiation Agreement and Planning Document ("ENA") with Watts Station LP, a California limited partnership, for the development of 3.67 acres of Metro-owned property at the 103rd St/Watts Towers Station ("Site") for 18 months with the option to extend up to 30 months.

(CARRIED OVER FROM FEBRUARY REGULAR BOARD MEETING DUE TO ABSENCES AND CONFLICTS)

JF	PK	MB	RG	SK	EG	JB	HS*	JH	KB	JDW	MRT	AN
Y	C	C	C	Y	Y	Y	Y	Y	C	Y	C	Y

* SELECTED UNDER RULE OF NECESSITY.

41. SUBJECT: METRO CENTER PROJECT (FORMERLY ESOC)

2020-0179

WITHDRAWN:

AUTHORIZING the Chief Executive Officer (CEO) to:

- A. Award a firm fixed price contract, Contract No. C52151C1169-2 to S.J. Amoroso Construction Co., Inc., the responsive and responsible Proposer determined to provide Metro with the best value for the design and construction of the Metro Center Project (Project), in the amount of \$129,365,128.00;
- B. Align the Life-of-Project Budget (LOP) of \$112.7 million to \$206 million including \$109.5 million of Prop 1B California Transit Security Grant Program funds awarded to the Project by the State;
- C. Execute Modification No. 9 to Contract No. AE451150019779 with HDR Engineering Inc. to provide Design Support During Construction in the amount of \$1,976,222 increasing the Total Contract Value from \$6,528,181 to \$8,504,403 and increase the Contract Modification Authority (CMA) for HDR Engineering Inc. in the amount of \$400,000; and,
- D. Execute all agreements, task orders and contract modifications necessary up to the LOP budget to complete the above actions.

(CARRIED OVER FROM FEBRUARY REGULAR BOARD MEETING)

42. SUBJECT: CORONAVIRUS - COVID19

2020-0289

APPROVED BY A 2/3 VOTE the Chief Executive Officer to authorize the Chief, Vendor Contract Management Officer approval authority for procurements to support the emergency condition that is being declared due to the coronavirus pandemic, in accordance with Los Angeles County Metropolitan Transportation Authority's Acquisition Policy and Procedure Manual, Acquisition Procedures ACQ2, chapter 11, section 11.8 "Emergency Procurements", Public Utilities Code 130234 and Public Contracting Code 20233, that cannot be met through normal procurement methods through June 1, 2020.

(REQUIRED 2/3 BOARD VOTE)

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

**43. SUBJECT: ASSISTANCE TO TRANSIT-ORIENTED BUSINESSES IN 2020-0307
RESPONSE TO COVID-19**

APPROVED AS AMENDED Motion by Directors Ridley-Thomas, Kuehl, Butts, Garcetti, and Dupont-Walker:

Directing the Chief Executive Officer to negotiate and execute amendments to the agreement with the Los Angeles County Development Authority (LACDA) to reallocate up to \$853,000 of the TOC Small Business Program funds to implement a TOC COVID-19 Business Recovery Loan Program with the following components:

1. Restrict the funds to businesses within Los Angeles County that are within 1/4 mile of a Major Transit Stop as defined by California Public Resources Code Section 21064.3, which may be amended from time to time;
2. Require the loans funded with Metro funds be subject to the following requirements:
 - a. Each below-market interest loan will not exceed \$20,000 and will cover operating expenses for a qualifying small business with up to 25 full time employees;
 - b. Each loan will have a 5-year term with repayment of principal and interest deferred for the first 12 months;
 - c. There will be no loan origination fee and no collateral required; and
 - d. Each recipient must have been in continuous operation for not less than 24 months prior to the COVID-19 crisis and have demonstrated a negative financial impact due to the COVID-19 crisis.
3. Limit LACDA's administrative costs to no more than \$37,000; and
4. Metro staff will provide an update to the Board of Directors in writing within 6 months of Board Approval regarding the impact of the TOC COVID-19 Business Recovery Loan Program.

AMENDMENT: WE FURTHER MOVE that the Board direct the CEO to:

1. Ensure that any Metro funding added to the LA County Business Recovery Loan Program will be repaid back to Metro and retained for the Transit Oriented Communities Small Business Program;
2. Work with LACDA to ensure geographic distribution of Metro funds across subregions; and

(continued on next page)

(Item 43 – continued from previous page)

3. Report back to the Planning & Programming Committee in 120 days with recommendations for improvements to the Transit Oriented Communities Small Business Program, including but not limited to guideline revisions to make funding easier for small businesses to access.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

44. SUBJECT: CLOSED SESSION

2020-0301

A. Conference with Legal Counsel - Existing Litigation - G.C. 54956.9(d)(1)

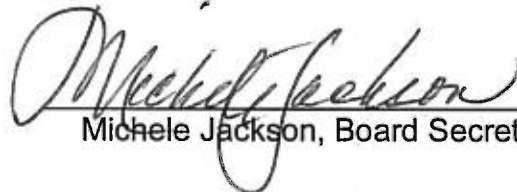
1. Kimberlee Ann Watkins v. LACMTA, Case No. BC 704890

AUTHORIZED settlement of \$6,000,000 and turning over balance of \$1,200,000 to Metro's excess insurance carrier to resolve remaining accidents that arose from this accident.

JF	PK	MB	RG	SK	EG	JB	HS	JH	KB	JDW	MRT	AN
Y	Y	A	Y	Y	A	Y	Y	Y	C	Y	A	Y

ADJOURNED AT 12:21 P.M.

Prepared by: Mandy Cheung
Administrative Analyst, Board Administration


Michele Jackson, Board Secretary



File #: 2020-0276, **File Type:** Contract

Agenda Number: 6.

**PLANNING AND PROGRAMMING COMMITTEE
MAY 20, 2020**

SUBJECT: HIGHWAY PROGRAM PROJECT DELIVERY PROFESSIONAL SERVICES ON-CALL

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. AWARD four, three-year base on-call contracts, with two, one-year option terms, Contract Nos. AE67946000, AE67946001, AE67946002, AE67946003 to HNTB Corporation, Parson Transportation Group, TranSystems Corporation and WKE, Inc. respectively, for a total not-to-exceed amount of \$40,000,000 for the initial three-year base contract, and \$5,000,000 for each one-year option term, for a total not to exceed amount of \$50,000,000, for Highway Program Project Delivery Support Services and other related work, subject to resolution of protest(s), if any, and

- B. EXECUTE or delegate the execution of Task Orders within the approved not to exceed cumulative value of \$50,000,000.

ISSUE

Metro's Highway Program requires professional services to support the various essential phases of projects (planning, research/data collection, environmental assessment/clearance, design, public outreach, project management, quality assurance/quality control, risk analysis, surveying, etc.). The Highway Program On-call services contracts will accommodate expeditious award of task orders for the needed services and allow for accelerated and cost-effective delivery of projects.

DISCUSSION

Metro's Highway Program is delivering several short-, mid- and long-term improvement projects. These include Measure R and Measure M funded projects for which funding has been or will be programmed for implementation. More than \$4 billion has been earmarked for investments in highway improvements over the next decade.

The Highway Program has successfully utilized the current on-call contract since June 2017 to fast track development of Metro-funded major improvements on the State Highway system as well as improvements on local arterials in various jurisdictions. To date, 26 task orders to the on-call contracts have been executed for a total value of approximately \$20,000,000. The current on-call contract will expire on June 30, 2020, placing the Highway Program at risk of delivering essential highway projects that are ordinance mandated.

The new On-call services contracts will allow Metro to continue delivery of professional, technical, and administrative services in the following areas: (1) Planning and Technical Studies, (2) Research/Data Collection, (3) Project Approval and Environmental Document (PA/ED), (4) Plans, Specifications, and Estimates (PS&E), Deliverables, (5) Utilities and Right of Way, (6) Intelligent Transportation Systems Support, (7) Program/Project Management Support and QA/QC, (8) Administrative Project Support Activities and other tasks as identified by the Highway Program. While the Highway Program On-call was initiated to address the needs of the Highway Program, it has been made available to Congestion Reduction, Program Management, Transit project delivery and other departments within the Metro organization.

Additionally, the Highway Program has raised the requirement for small business utilization to a minimum of 30% and continues to work with the primes to significantly increase the SBE utilization where task orders can be entirely or in large part done by a small business.

DETERMINATION OF SAFETY IMPACT

The approval of this procurement will not have any negative impact on the safety of Metro's patrons or employees or the users of the highway system in LA County.

FINANCIAL IMPACT

Funding for the individual task orders shall be based on availability of funds and will be provided through approved FY20 and proposed (or adjusted) FY21 Highway Program project budgets. Approved annual budgets of other departments in current and future years that will be using this on-call, will also fund individual task orders.

Impact to Budget

There is no impact to the FY20 budget. Annually, funds will be included in the fiscal year budget for each planned project and task issued. Since these are multi-year contracts, the Senior Executive Officer, Highway Program and the Cost Center Manager will be responsible for budgeting the costs in future years.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Staff recommendations are consistent with Metro's Strategic Plan Goal 1. This action supports timely and cost-effective delivery of high-quality transportation mobility and safety improvement projects.

Goal 1.2: Expand the transportation system as responsibly and quickly as possible. Metro is

committed to deliver projects across all modes as mandated by Measure R and M.

ALTERNATIVES CONSIDERED

Highway Program staff could have requested an extension of the existing on-call. However, due to the organizational and staff changes within the firms currently under contract, and to provide opportunities to other qualified firms, this alternative is not recommended.

NEXT STEPS

Upon approval by the Board, staff will execute contracts with HNTB Corporation, Parsons Transportation Group, TranSystems Corporation and WKE, Inc.

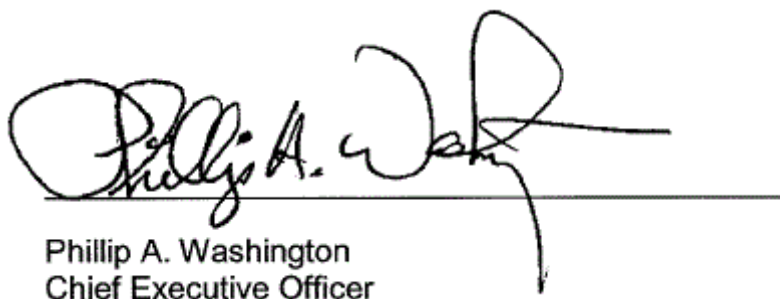
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Isidro Panuco, Sr. Manager Transportation Planning, (213) 418-3208
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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

ON-CALL HIGHWAY PROGRAM PROJECT DELIVERY
AE67946000 through AE67946003

1.	Contract Number: AE67946000, AE67946001, AE67946002, AE67946003	
2.	Recommended Vendor: HNTB Corporation (AE67946000) Parsons Transportation Group (AE67946001) TranSystems Corporation (AE67946002) WKE, Inc. (AE67946003)	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 1/17/2020	
	B. Advertised/Publicized: 1/18/2020	
	C. Pre-Proposal Conference: 1/28/2020	
	D. Proposals Due: 2/25/2020	
	E. Pre-Qualification Completed: In-process	
	F. Conflict of Interest Form Submitted to Ethics: 3/5/2020	
	G. Protest Period End Date: 5/25/2020	
5.	Solicitations Picked-up/ Downloaded: 230	Proposals Received: 9
6.	Contract Administrator: Andrew Conriquez	Telephone Number: 213-922-3528
7.	Project Manager: Isidro Panuco	Telephone Number: 213-418-3208

A. Procurement Background

This Board Action is to approve Contract Nos. AE67946000, AE67946001, AE67946002, and AE67946003 issued to provide On-Call Highway Program Project Delivery support services. Board approval of contract awards are subject to resolution of any properly submitted protest.

This Architectural and Engineering (A&E) qualifications-based Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy. The RFP was issued with an SBE/DVBE goal of 33% (SBE 30% and DVBE 3%). Task orders will be issued on a fixed-price basis.

Work for each Contract will be authorized through the issuance of separate task orders. Each future task order will contain a specific statement of work for a scope of services.

Task orders will be issued to a contractor after discussions are conducted. If one contractor is unable to perform the work under a task order, the task order will be issued to the next highest ranked contractor.

Three amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on January 29, 2020, increased the proposal page limit;
- Amendment No. 2, issued on February 6, 2020, included Exhibit 11 – Noncollusion Affidavit as part of Volume II;
- Amendment No. 3, issued on February 11, 2020, updated Exhibit A – Scope of Services and extended the proposal due date.

A pre-proposal conference was held on January 28, 2020 and was attended by 85 participants representing 42 companies. There were 6 questions asked at the pre-proposal conference and responses were provided. In addition, 17 questions were received after the pre-proposal conference and responses were released prior to the proposal due date.

A total of 230 firms downloaded the RFP and were included in the planholders list. A total of 9 proposals were received on February 25, 2020.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro and Caltrans District 7 was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- Experience and Capabilities of the Firms on the Contractors Team 40 percent
- Management Plan, Availability and Controls 30 percent
- Degree of Skills and Experience of Team Members 30 percent

The evaluation criteria are appropriate and consistent with criteria developed for other, similar A&E on-call project delivery support services procurements. Several factors were considered when developing these weights, giving the greatest importance to the experience and capabilities of the firms on the contractors' team.

This is an A&E, qualifications-based procurement; therefore, price cannot be used as an evaluation factor pursuant to state and federal law.

During the week of March 23, 2020, the PET completed its independent evaluation of the nine proposals received and determined that four were deemed the most highly qualified to provide the services required. The four firms within the competitive range are listed below in alphabetical order:

1. HNTB Corporation
2. Parsons Transportation Group
3. TranSystems Corporation
4. WKE Inc.

Five firms were determined to be outside the competitive range and not included for further consideration. Proposers who were outside the competitive range did not clearly demonstrate their project managers or project experience and availability of key personnel was limited.

Qualifications Summary of Recommended Firms

HNTB Corporation

Founded in 1914, HNTB has been involved in planning, engineering, environmentally clearing and producing plans, specifications and estimates for highway and bridge structures in Southern California. HNTB Corporation has numerous offices across the United States and has designed many roads, airports bridges, tunnels, rail and transit systems.

In their proposal, HNTB described their experience with transportation projects such as planning, engineering, environmental, specifications and estimates and highway improvements. They demonstrated how they would address challenges of delivering projects planning through construction, while working with stakeholders and communities. In addition, HNTB has worked on multiple Los Angeles County projects such as SR710/North Study Alternatives Analysis, I-605 /Beverly Boulevard Interchange Improvements, and I-105 Express Lanes PA/ED.

Parsons Transportation Group

Serving Los Angeles since 1944, Parsons is one of the largest engineering and construction companies with more than 15,000 employees worldwide. Their highway experience consists of planning, design, and program/construction management of more than 10,000 miles of freeways and 4,500 bridges throughout the world.

Parsons' proposal demonstrated experience in all phases of support services, feasibility studies, alternatives analysis, and environmental services. In addition, Parsons has delivered multiple feasibility studies, alternatives analysis, PA/ED, PS&E, Managed Lanes, program management (PM), and construction management (CM) services, worth more than \$10 billion throughout Southern California.

TranSystems Corporation

TranSystems has been focused on helping clients solve transportation challenges since its inception.. TranSystems has provided engineering and architectural planning, design and construction solutions to enhance the movement of goods and people across today's integrated transportation infrastructure.

In their proposal, TranSystems established that they can be a key resource for Metro Highway planning. They have performed work on over 100 tasks order for Metro and

Caltrans District 7. TranSystems offers a wide-range of experience in all modes of transportation in the fields of highway planning, analysis and implementation experience working with local, State and Federal agencies.

WKE, Inc.

Established in 2007, WKE is a Southern California-based transportation planning and design consulting firm, providing its clients with engineering services for the construction of new and modified civil and structural projects. WKE offers 80 bridge and highway engineers dedicated solely to transportation engineering located in two offices in Los Angeles and Santa Ana.

The proposal submitted by WKE, Inc., demonstrated that they are a transportation planning and design firm who can provide relevant project knowledge, solid highway project experience and expertise and an unwavering commitment to the quality of their product. Their capabilities span the full range of project development and specialty technical areas.

Following is a summary of the PET evaluation scores:

	Firm	Weighted Average Score	Factor Weight	Average Score	Rank
1	HNTB Corporation				
2	Experience & Capabilities of the Firms on the Contractor's Team	83.00	40.00%	33.20	
3	Management Plan, Availability and Controls	78.67	30.00%	23.60	
4	Degree of Skills and Experience of Team Members	85.00	30.00%	25.50	
5	Total		100.00%	82.30	1
6	Parsons Transportation Group				
7	Experience & Capabilities of the Firms on the Contractor's Team	81.80	40.00%	32.72	
8	Management Plan, Availability and Controls	80.00	30.00%	24.00	
9	Degree of Skills and Experience of Team Members	85.00	30.00%	25.50	
10	Total		100.00%	82.22	2
11	WKE Inc.				
12	Experience & Capabilities of the Firms on the Contractor's Team	80.00	40.00%	32.00	
13	Management Plan, Availability and Controls	77.33	30.00%	23.20	
14	Degree of Skills and Experience of Team Members	79.00	30.00%	23.70	

15	Total		100.00%	78.90	3
16	TranSystems Corporation				
17	Experience & Capabilities of the Firms on the Contractor's Team	75.40	40.00%	30.16	
18	Management Plan, Availability and Controls	76.87	30.00%	23.06	
19	Degree of Skills and Experience of Team Members	80.80	30.00%	24.24	
20	Total		100.00%	77.46	4

;

C. Cost

Work will be performed through the issuance of separate task orders. Each task order will require an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and negotiation to determine the fairness and reasonableness of price.

D. Background on Recommended Contractor(s)

HNTB Corporation

HNTB has worked with Riverside County Transportation Commission, Orange County Transportation Authority, San Bernardino County Transportation Authority, and Metro. The proposed project manager has over 20 years of project manager experience. The knowledge and experience the project manager brings working with Caltrans District 7 in the past may be a benefit to Metro in navigating the Caltrans approval process to facilitate time within budget completion for Metro' highway on-call program. In addition, HNTB Corporation demonstrated experience in transportation planning, engineering, specifications and estimates and environmental clearing.

Parsons Transportation Group

Parsons has a diverse range of experience working on complex projects and with stakeholders such as Caltrans, Federal Highway Administration, Councils of Government, Corridor Cities and Resource Agencies. The Parsons Project Manager has decades of experience including over 22 years working with Caltrans. In addition, the project manager has experience working with construction oversight, contractor management, project planning and development, goal setting, environmental, public outreach and public relations, coordination and regular meetings with multiple federal, state, and local agencies and stakeholders.

TranSystems Corporation

TranSystems Corporation has delivered on over 100 task orders, small and large, throughout Southern California for Caltrans and Metro's transportation projects. The Project Manager has over 40 years of experience working on transportation projects. TranSystems Project Manager has extensive knowledge of Metro and Caltrans requirements, approval processes, procedures, design guideline and State and Federal regulations. In addition, the Project Manager has knowledge and understanding of key stakeholders and local agencies.

WKE, Inc.

WKE, Inc., services include the planning and design of freeway corridor widenings, High-Occupancy Vehicle (HOV) improvements, managed lanes, freight corridors, railroad grade separations, bridge seismic retrofitting, and freeway interchange and street widening projects. The proposed Project Manager has managed the delivery of over 120 SRs and PA/EDs, and 80 PS&Es for major freeway widening and interchange reconstructions with Caltrans oversight and approvals. The Project Manager also worked at Caltrans District 7 for 12 years and managed the PS&E for the I-105/I-405 Five-Level Freeway-to-Freeway Interchange. He served as the Project Manager for Highway Program Planning On-Call Task Order contracts for transportation agencies in Southern California including Caltrans District 7, Orange County Transportation Authority, Transportation Corridor Agencies, Riverside County Transportation Department, Orange County Department of Public Works, and the Port of Long Beach.

DEOD SUMMARY

**ON-CALL HIGHWAY PROGRAM PROJECT DELIVERY
AE67946000 through AE67946003**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 30% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this Task Order Contract. Four (4) firms were selected as prime consultants: HNTB Corporation, Parsons Transportation Group, Inc., TranSystems Corporation, and WKE, Inc. Each firm made a 30% SBE commitment and a 3% DVBE commitment for this Task Order Contract.

In response to a specific Task Order request with a defined scope of work, the prime consultants will be required to identify SBE and DVBE subcontractor activity and actual dollar value commitments for that Task Order. Overall SBE and DVBE achievement in meeting the commitments will be determined based on cumulative SBE and DVBE participation of all Task Orders awarded.

Small Business Goal	30% SBE 3% DVBE	Small Business Commitment	30% SBE 3% DVBE
----------------------------	----------------------------	----------------------------------	----------------------------

Prime: HNTB Corporation

	SBE Subcontractors	% Committed
1.	AFSHA Consulting	TBD
2.	Arellano Associates	TBD
3.	Circlepoint	TBD
4.	Civil Works Engineers	TBD
5.	D'Leon Consulting Engineers	TBD
6.	Earth Mechanics, Inc.	TBD
7.	Entech Northwest, Inc.	TBD
8.	Epic Land Solutions	TBD
9.	FPL and Associates	TBD
10.	Geo-Advantec, Inc.	TBD
11.	GPA Consulting	TBD
12.	Hushmand Associates	TBD
13.	IDC Consulting Engineers, Inc.	TBD
14.	NCM Engineering Corp	TBD
15.	System Metrics Group, Inc.	TBD
16.	Tatsumi and Partners, Inc.	TBD
17.	The Alliance Group Enterprise, Inc.	TBD
18.	Value Management Strategies, Inc.	TBD
19.	Wagner Engineering & Survey, Inc.	TBD
20.	Wiltec	TBD
	Total SBE Commitment	30%

Prime: HNTB Corporation (Cont.)

	DVBE Subcontractors	% Committed
1.	Calvada Surveying, Inc.	TBD
2.	FMF Pandion	TBD
3.	MA Engineering	TBD
	Total DVBE Commitment	3%

Prime: Parsons Transportation Group

	SBE Subcontractors	% Committed
1.	Arellano Associates	TBD
2.	AYCE, Consulting Engineers Inc.	TBD
3.	C2PM	TBD
4.	Civil Works Engineers, Inc.	TBD
5.	D R Consultants & Designers, Inc.	TBD
6.	Epic Land Solutions, Inc.	TBD
7.	Geo-Advantec, Inc.	TBD
8.	GPA Consulting	TBD
9.	Guida Surveying, Inc.	TBD
10.	IDC Consulting Engineers, Inc.	TBD
11.	Intueor Consulting, Inc.	TBD
12.	Irvine Global Consulting, Inc.	TBD
13.	MARRS Services, Inc.	TBD
14.	NCM Engineering Corp.	TBD
15.	Optitrans Engineering, Inc.	TBD
16.	PacRim Engineering, Inc.	TBD
17.	SHA Analytics LLC	TBD
18.	System Metrics Group, Inc.	TBD
19.	Value Management Strategies, Inc.	TBD
20.	ZHarrison & Associates (dba Zeldesign)	TBD
21.	ZMassociates Environmental Corp.	TBD
	Total SBE Commitment	30%

	DVBE Subcontractors	% Committed
1.	Calvada Surveying, Inc.	TBD
2.	OhanaVets, Inc.	TBD
	Total DVBE Commitment	3%

Prime: TranSystems Corporation

	SBE Subcontractors	% Committed
1.	Advanced Civil Technologies	TBD
2.	Advantec Consulting Engineering	TBD
3.	Arellano Associates	TBD
4.	Construction Engineering Management Solutions	TBD
5.	Earth Mechanics	TBD
6.	Entech Consulting Group	TBD
7.	Epic Land Solutions, Inc.	TBD
8.	Geo Advantec Inc	TBD
9.	GPA Consulting	TBD
10.	Guida Surveying, Inc.	TBD
11.	Hout Engineering (Hout Construction Services)	TBD
12.	PacRim Engineering	TBD
13.	SHA Analytics LLC	TBD
14.	Tatsumi and Partners	TBD
15.	Vandermost Consulting Services dba VCS Environmental	TBD
	Total SBE Commitment	30%

	DVBE Subcontractors	% Committed
1.	MA Engineering	TBD
2.	Virtek Company	TBD
	Total DVBE Commitment	3%

Prime: WKE, Inc.

	SBE Subcontractors	% Committed
1.	Arellano Associates	TBD
2.	Advanced Avant Garde Corporation	TBD
3.	CWE	TBD
4.	D'Leon Consulting Engineers	TBD
5.	Earth Mechanics	TBD
6.	FPL and Associates, Inc.	TBD
7.	Geo-Advantec, Inc.	TBD
8.	GPA Consulting	TBD
9.	Guida Surveying, Inc.	TBD
10.	Intueor Consulting	TBD
11.	Kroner Environmental Services	TBD
12.	NCM Engineering Corp.	TBD
13.	Optitrans Engineering, Inc.	TBD
14.	PacRim Engineering	TBD
15.	Tatsumi and Partners	TBD
16.	Value Management Strategies, Inc.	TBD
17.	Wagner Engineering & Survey, Inc.	TBD
	Total SBE Commitment	30%

Prime: WKE, Inc. (Cont.)

	DVBE Subcontractors	% Committed
1.	AlphaGraphics 760	TBD
2.	Craftwater Engineering	TBD
3.	FMF Pandion	TBD
4.	MA Engineering	TBD
	Total DVBE Commitment	3%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2019-0882, File Type: Plan

Agenda Number: 7.

PLANNING AND PROGRAMMING COMMITTEE MAY 20, 2020

SUBJECT: DRAFT 2020 LONG RANGE TRANSPORTATION PLAN

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

APPROVE the release of Draft 2020 Long Range Transportation Plan (LRTP) for public comment.

ISSUE

The Draft 2020 Long Range Transportation Plan ("2020 LRTP", Attachment A) details how Metro plans, builds, operates, maintains and partners for improved mobility in the next 30 years. Given the challenges facing Los Angeles County, there is also a compelling opportunity to make bold changes to address the need for improved access to opportunity and a more sustainable future.

BACKGROUND

Metro must adopt a financially constrained LRTP in order to remain eligible to receive federal and state funding. In September 2017, staff began work to update the 2009 LRTP, following the passage of Measure M, and in alignment with the Southern California Association of Governments (SCAG) process for updating the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Metro's LRTP demonstrates how Los Angeles County transportation projects conform with the state and federal air quality mandates for funding eligibility.

In June 2019, the Metro Board was presented a draft LRTP baseline outline, including demographic projections, performance measures and framework for evaluating equity in Equity Focus Communities. In November 2019, the Metro Board was presented with a financial forecast that will be the constrained financial baseline for this plan.

DISCUSSION

Challenges and Opportunities

Current challenges present great opportunities for Metro to take bold action and help achieve our vision for the region. Specifically, we are faced with the following:

- 1) Growth: Los Angeles County will increase an additional 1.7 million people in the next 30 years, and the infrastructure needs to support that growth in a way that allows for healthy economic

- growth, as well as a redistribution of system benefits to those most in need;
- 2) Evolving Needs: The needs of the County will change over time, and nothing demonstrates that more acutely than the current pandemic crisis, as it accentuates the vulnerability of specific demographic groups in our communities;
 - 3) Technology: The countywide transportation system must continue to adapt to changing mobility needs, consumer demands and increased goods movement;
 - 4) Changing Environment: Metro must lead in reducing greenhouse gas emissions across Los Angeles County, in how we travel, and how Metro influences through its sustainability practices; and
 - 5) Equitable Access to Opportunity: Metro investments and strategies must prioritize those most in need of improved access.

Strategies

The main strategy areas for the 2020 LRTP are: Better Transit; Less Congestion; Complete Streets; and Access to Opportunity. The projects, programs and policies that support and advance these strategies are detailed within the document. Together, these efforts will increase transit ridership and improve air quality.

Equity Platform

The Draft 2020 LRTP was developed through extensive public engagement based on the “Listen & Learn” pillar of the Equity Platform. The remaining three pillars are all addressed within the draft 2020 LRTP: Define & Measure; Focus & Deliver; and Train & Grow.

DETERMINATION OF SAFETY IMPACT

This report has no impact on safety.

FINANCIAL IMPACT

This item has no fiscal impact to the agency.

Impact to Budget

Activities associated with completing the LRTP update are budgeted in the current fiscal year and are within budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Draft 2020 LRTP will advance all five goals of Vision 2028, which calls for the LRTP to “operationalize” its strategic plan initiatives.

ALTERNATIVES CONSIDERED

The Metro Board could consider the Draft 2020 LRTP for adoption without public comment, but this would prevent further stakeholder input and undermine the goals of the Equity Platform.

NEXT STEPS

The Draft 2020 LRTP will be presented for public comment for a forty-five (45) day public review period. Please check [OurNext.LA <https://ournext.la/>](https://ournext.la/) for a schedule of events or to submit a comment electronically. Following that public comment period, staff will return to the Board to request adoption of the 2020 LRTP.

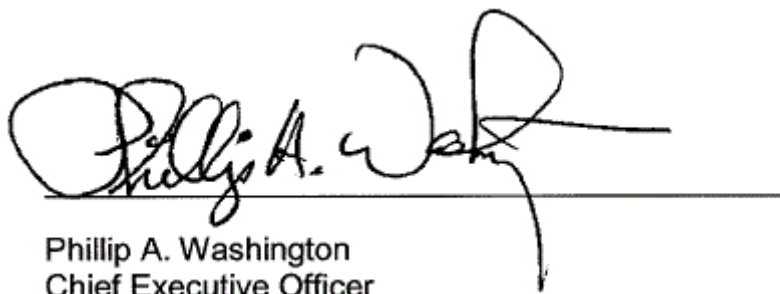
After the possible adoption of the 2020 LRTP, staff will begin work on an action plan, in the form of a Short Range Transportation Plan (SRTP). The SRTP would recommend near-term implementation steps over a ten- to fifteen-year timeframe, and allow for any needed recalibrations from the current COVID-19 pandemic.

ATTACHMENTS

Attachment A - Draft 2020 Long Range Transportation Plan (LRTP)

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



Phillip A. Washington
Chief Executive Officer

Los Angeles County
Metropolitan Transportation Authority

OUR NEXT LA*

2020 Long Range Transportation Plan

DRAFT



Metro®

better transit

p16

less congestion

p30

complete streets

p44

*access to
opportunity*

p54

DRAFT

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*By LA, we mean all 88 cities, unincorporated areas and hundreds of neighborhoods, in LA County.

We must respond to the challenges of today *and* tomorrow.

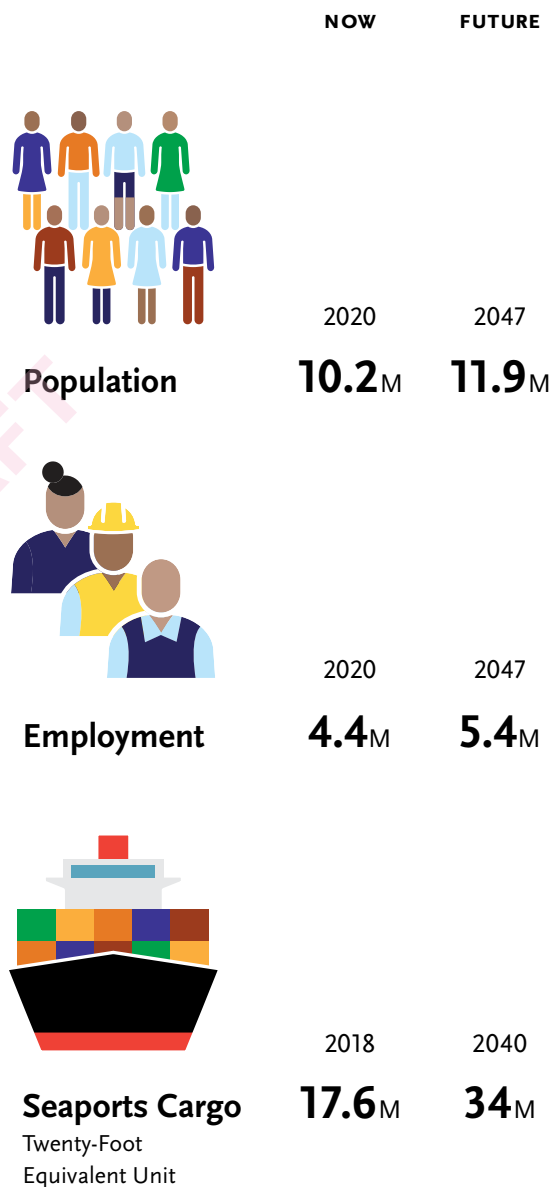
In 2020, LA County is at a pivotal point in its history. We have made great strides in economic development and community revitalization, welcomed new sports teams and stadiums, and attracted the 2028 Olympics and other major events. However, our region faces many challenges in the years ahead, including reducing roadway congestion, increasing transit ridership, adapting to and mitigating the impacts of a changing climate, tackling the housing crisis and improving quality of life in our communities. Furthermore, recent events have highlighted the significant regional impact that unforeseen events, such as the COVID-19 pandemic, can have on our regional transportation system, economy and financial outlook. Metro will respond to this and any future crisis to prioritize public health and safety, while implementing lessons learned to continually provide better mobility with less congestion.

One thing is certain: a reliable, high-quality transportation system is crucial to LA County's economic recovery, continued prosperity and quality of life. The challenge of efficiently moving people and goods takes on particular significance in LA County, given its vast geographic scale and longstanding association with the automobile. Few issues will be more important in shaping our region's future and sustaining its incredible economic and social promise than our collective ability to marshal the resources and the political will to implement transportation solutions that successfully meet LA County's mobility needs, now and in the future.

Metro's mission is to provide a world-class transportation system that enhances quality of life for all who live, work and play within LA County (Vision 2028 Strategic Plan). As its Regional Transportation Planning Agency, Metro has the unique opportunity and responsibility to evolve the LA County transportation system to better serve its residents and visitors, and to maximize economic, mobility, safety, environmental and quality of life benefits.

Figure 1

LA County Projected Regional Growth



LA County at a Glance

LA County is home to more than

10 million people

– the largest county in the United States.

Metro operates the

3rd largest transit system

in the nation, with more than

1.2 million daily boardings.*

LA County's transit providers operate

over 7,000 buses

and serve approximately

**1.6 million daily
bus passengers.***

Metro's **1,433** square-mile transit
service area fits the land areas of:

Boston
Dallas
Denver
New Orleans
New York City
Philadelphia
Portland
San Francisco
Seattle
and Washington DC

In addition to Metro,

16 municipal bus operators

and **42 local operators**

serve LA County residents.

Metro Rail and Metrolink trains carry over

340,000 daily passengers

on **300 miles of rail**

in LA County*.

**2018 data*

LA County has close to **22,000 miles**
of highways, arterials, and
local roadways.



Therefore, let us be bold.

To that end, this Long Range Transportation Plan (2020 LRTP) will outline what Metro is doing currently and what Metro must do for LA County. Current challenges present great opportunities for Metro to take bold action and help achieve our vision for the region.

A Growing County

LA County is home to many of the nation's most congested corridors. Its population is expected to grow by approximately 1.7 million by 2047, increasing the number of people and volume of goods traveling on an already strained transportation network. Furthermore, while LA County is fortunate to have dedicated local funding sources, system needs still exceed available financial resources, and Metro must assess our priorities and determine what is most essential.

Changing Mobility Needs and Preferences

Our transportation system must remain resilient to evolving demographic and consumer demands, changes to the delivery of goods and services, and other unforeseen challenges that lie ahead. For example, as the population ages, older people have different needs for access than younger people, while younger people tend to have different expectations about the use of technology for their transportation choices.

Technological Change

Over the coming decades, new technologies will change the way we access goods and services, reshaping our mobility landscape, and affecting our travel preferences and expectations. The widely anticipated advent of connected and autonomous vehicle technology presents possibilities for safer, more efficient vehicle travel, but raises equity concerns and could exacerbate dependency on auto travel if not properly regulated. Metro is well positioned to harness the power of private sector technology innovations to enhance customer experience by offering new mobility services, integrating and optimizing the design of vehicles and infrastructure, and increasing overall system efficiency to better serve the mobility needs of all users.





Equitable Access to Opportunity

Disparities in transportation access, mobility, safety and environmental quality persist across racial and socioeconomic lines. Prior to the first Metro Rail line opening in 1990, transportation policies and investments in LA County prioritized expensive single-occupant vehicle (SOV) travel over more affordable, high-quality mobility alternatives. Furthermore, consistently rising housing costs are pushing many workers farther away from their jobs, imposing added strains on the transportation system and affecting quality of life for those impacted. The result is an inequitable transportation system that exacerbates the divide between those who have the access and means to drive and those who do not, while providing inadequate options for both groups. The transportation system must provide access to safe, reliable and affordable travel options to those who need it most. Historical decision making has resulted in the current disparities; there is an opportunity now for Metro to coordinate investments in the communities with the greatest needs.

Adapting to a Changing Environment

Southern California is continuing to face the threats of a changing climate, including increasingly frequent and severe fires, mudslides, rising urban temperatures, and the associated impacts on the public health and livelihood of our residents. California is a national leader in addressing climate change; however, emissions from the transportation sector are still a major source of greenhouse gas (GHGs) emissions. Metro must lead LA County in reducing GHGs, through programs to electrify our bus fleet and promote low carbon transportation options. Furthermore, we must improve the sustainability and resiliency of our transportation system, through active asset management, lifecycle cost analysis for transportation projects and proactive planning for severe climate events.

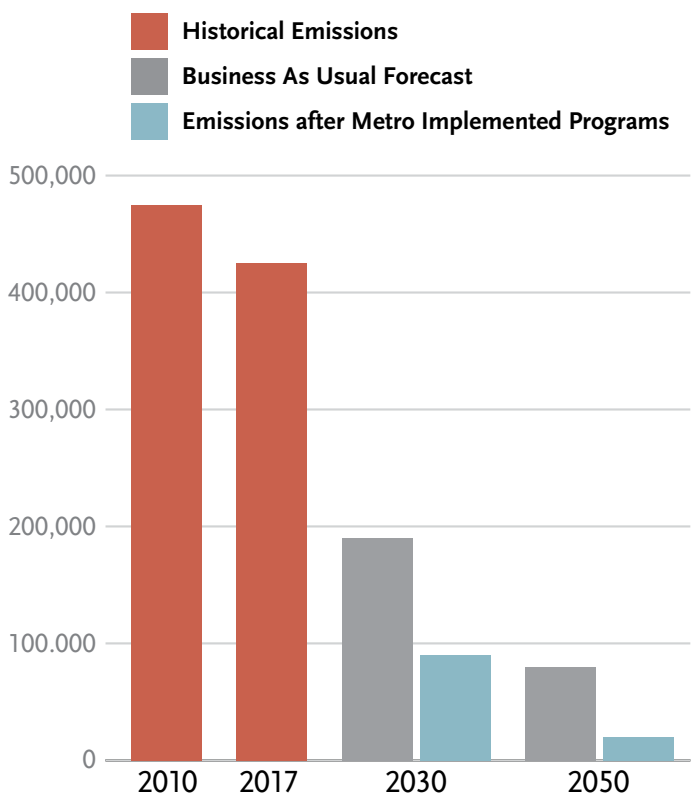
Metro commits to reducing our agency greenhouse gas emissions:

- > **by 79%** (relative to 2017 levels) **by 2030**
- > **by 100%** (i.e., zero emissions) **by 2050**

Figure 2

Emissions in Southern California

Metric tons of carbon dioxide equivalent



Metro will lead the way.

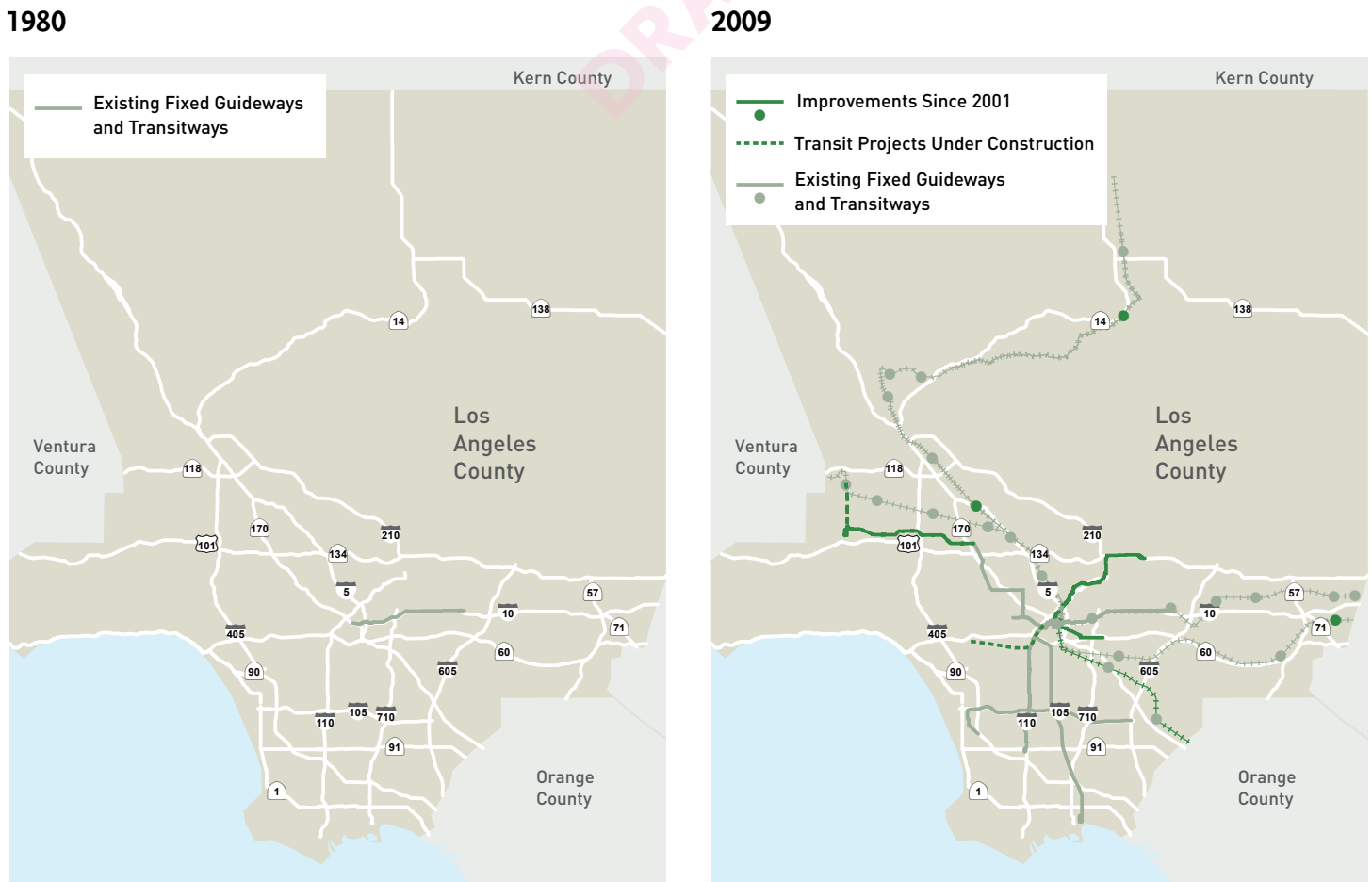
Over the coming decades, Metro will be faced with numerous, complex decisions about how to address these challenges. Significant investments are needed to maintain our aging roadway and transit systems, while managing and modernizing the system to prioritize safe and reliable transportation services. The 2020 L RTP details how Metro plans and builds, manages and maintains the transportation system, and how we partner to deliver on our promise to the residents and visitors to the region.

How We Plan and Build

Metro is the planner, designer and builder of Southern California's most expansive public transit network. Bolstered by voter-approved ballot measures, Metro has constructed roughly 130 miles of fixed-guideway transit in the past 40 years. The 2020 L RTP details how Metro will add more than 100 miles over the next 30 years, the most aggressive transit expansion plan in the nation. Beyond transit, Metro will invest in arterial and freeway projects to reduce congestion, such as the I-5 North Capacity Enhancements project, and bicycle and pedestrian projects to provide alternative transportation modes, such as the LA River Path and Active Transportation Rail to Rail Corridor. Through these investments, Metro will enhance regional mobility, support economic recovery and promote sustainability through green construction practices.

Figure 3

LA COUNTY FIXED GUIDEWAYS: 1980—PRESENT



How We Manage

In many cases, it is not possible to build the additional capacity necessary to address the constraints on the transportation system. A functioning highway network is an essential component of an effective transportation system. There is limited space to expand roads, and while fixing bottlenecks has alleviated congestion in places, adding more general-purpose freeway lanes is an expensive and disruptive option that will not solve congestion as the county continues to grow. Therefore, Metro must ensure that the regional transportation system is managed effectively through active corridor monitoring and operations. Working with our partners, we promote policies and programs, such as congestion pricing, integrated corridor management and parking management strategies, that allow us to better utilize space to transport more people to more destinations. We will continue to build out a network of ExpressLanes to improve reliability on our freeways; since the 2009 Long Range Transportation Plan, we have opened 96 miles along

two ExpressLanes corridors. Over the next decade, Metro will introduce an additional 210 miles of ExpressLanes on four additional corridors. We will continue to prioritize bus travel and provide dedicated space on arterial corridors, such as the Wilshire Boulevard and Flower Street bus lane projects, and work to implement the recommendations of the NextGen Bus Plan. Furthermore, we will invest in technology and promote innovative new mobility options, such as carsharing, micro mobility, mobility on demand (MOD), microtransit, Mobility as a Service (MaaS), connected and autonomous vehicles and freight-focused technologies. We will assess current and new pricing models to develop a simplified, equitable, fiscally sustainable, system-wide approach to pricing while also providing better mobility and security for all users across Metro's portfolio of transportation services.

2020



How We Maintain

In addition to building and managing, Metro is taking steps to continuously maintain and upgrade the multimodal system and enhance its quality and safety. While Metro's transit system is newer than other peer agency systems, its rehabilitation and replacement needs will continue to grow. In 2019, Metro completed the New Blue Improvements Project, which rehabilitated Metro's oldest rail line, the A Line (Blue), which connects Long Beach and downtown Los Angeles. Our investment plan includes over \$200 billion for operations and state of good repair, as well as \$38 billion in funding that returns to local agencies to maintain the local transportation system. Maintaining the system also includes upgrading and modernizing the system to enhance our customer experience and improve safety. Metro will continue to invest in technology, amenities, safety improvements and other improvements to create a world-class transportation system.

How We Partner

Metro relies on continuous coordination and meaningful partnerships with local, state and federal agencies, the private sector and local stakeholders. These partnerships are crucial for funding and delivering projects and for coordinated planning on issues of regional significance as well as local importance. Being responsive to the diverse needs of our many stakeholders would not be possible without these essential partnerships. Metro will increase collaboration with local jurisdictions to support transit priority on local roadways, to improve first/last mile access to transit, to improve local mobility and to realize transit-oriented communities.

We've built a multi-layered, responsive plan.

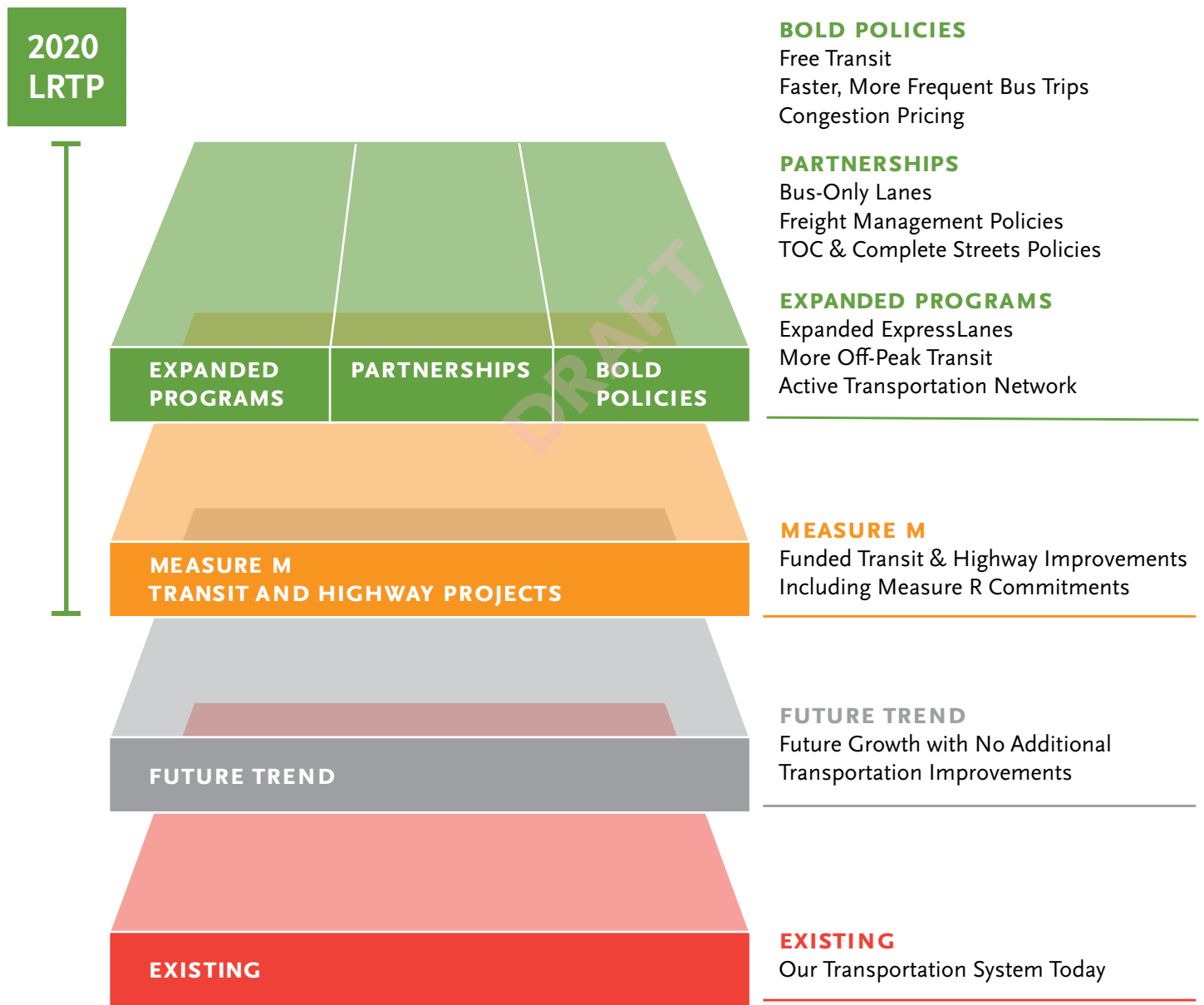
The 2020 LRTP includes current and future projects, programs and policies that Metro will undertake in collaboration with our regional partners. It includes all major transit and highway projects with committed funding or partially committed funding, existing programs and policies, collaboration with our partners, and new policies and initiatives to achieve our regional goals. **Measure M** and the financial commitments of the 2020 LRTP provide a foundational investment with broad mobility and sustainability benefits.

The LRTP maximizes these benefits through the addition of **expanded programs**, such as ExpressLanes, off-peak transit services and active transportation network expansion; **partnerships** to enhance transit, active travel, goods movement, and community development; and **bold policies**, such as reduced transit fares, a reimagined bus system and congestion pricing. Together, the committed capital program and these expanded programs, partnerships and policies represent a bold but achievable vision for our future system.



Image to come

Figure 4
Elements of the 2020 LRTP



Benefits at a Glance

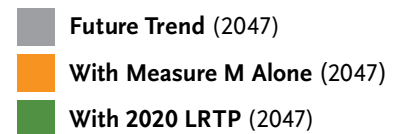
The 2020 Long Range Transportation Plan has the potential to deliver significant mobility benefits to the region through the major capital projects, programs and bold policies.

> The Measure M investment plan, on its own, will **dramatically expand regional access to high-quality travel options**. After implementation, 21% of county residents and 36% of jobs will be a 10-minute walk from high-quality rail or bus rapid transit options, up from only 8% of residents and 16% of jobs at present day.

> Metro’s other actions, including current, expanded and new **bold initiatives**, can complement the current capital investment plan and help the region achieve the dramatic changes that we need, such as a potential **81% increase in daily transit trips**, a **31% decrease in traffic delay** and a **19% decrease in greenhouse gas emissions**.

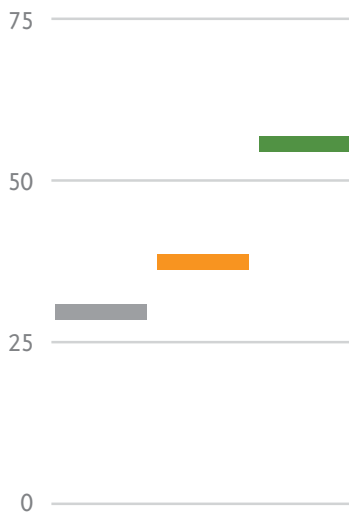
Figure 5

Benefits of the 2020 LRTP



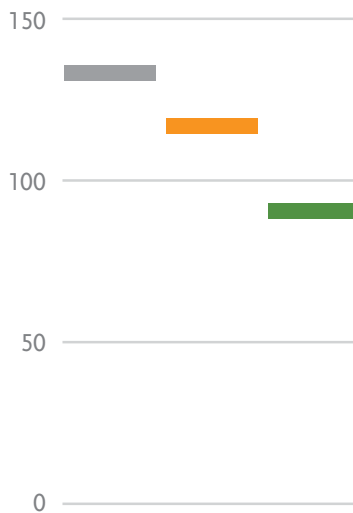
Transit Trips
annual trips per capita

↑
81%



Vehicle Hours of Delay
annual hours per capita

↓
31%



Greenhouse Gas Emissions
annual million metric tons

↓
19%

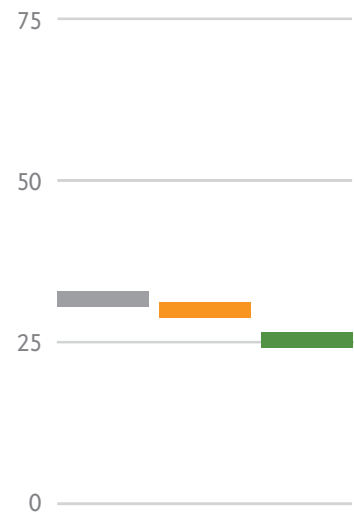
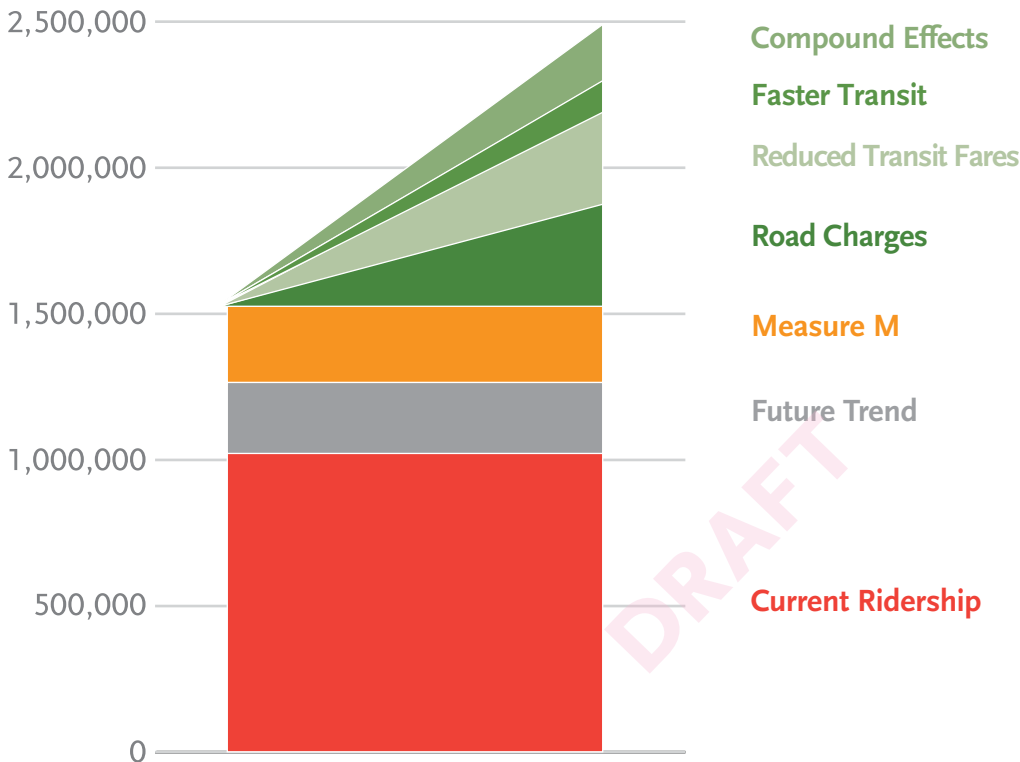


Figure 6

Potential Increase in Daily Transit Trips



Beyond the Measure M transit expansion, Metro can gain transit ridership with:

- 1. **Faster Transit (Increased fast/frequent transit):** **+7%**
- 2. **Reduced Transit Fares (Reduced fare / free transit):** **+25%**
- 3. **Road Charges (Mileage-based / VMT fees):** **+18%**

Scenario modeling tested the impacts of these strategies above and beyond the transit expansion commitments in this plan.

- > Increases in frequency and increased speeds on 40 most popular bus routes could result in a 7% increase in ridership.
- > Reducing transit fares can increase ridership; a fully subsidized transit trip for all riders may increase ridership up to 25%.
- > For mileage-based fees, each one cent per mile increase can result in roughly a 1% increase in transit ridership. A 20 cent vehicle miles traveled (VMT) fee may result in a 18% increase in transit ridership.
- > Applied together, these strategies have compounding benefits and generate an even larger increase in ridership.

L RTP Priorities

Metro's Vision 2028 Strategic Plan established Metro's mission, vision and agency goals when it was adopted in 2018. Metro's agency goals are:

1. High Quality Mobility Options
2. Outstanding Trip Experience for All
3. Enhancing Communities and Lives
4. Transform LA County through Collaboration and Leadership
5. Responsive, Accountable and Trustworthy Metro

The 2020 L RTP lays out a future vision and roadmap for bringing about a more mobile, resilient and vibrant future for LA County.

Through extensive public outreach, Metro has distilled the region's desires into four priority areas:

- > Better Transit
- > Less Congestion
- > Complete Streets
- > Access to Opportunity

The recommended steps in this plan, the L RTP's strategies and actions, are organized by these four priority areas.

Embedded in the priority areas are two core Metro values: **equity** to ensure every resident has the affordable transportation choices that work for their needs, and **sustainability** to ensure a bright future for generations to come.

Our Next LA* Community Engagement

- > 77 community events
- > 28 public meetings
- > 20,000 survey responses
- > 50,000 completed priority rankings



Figure 7

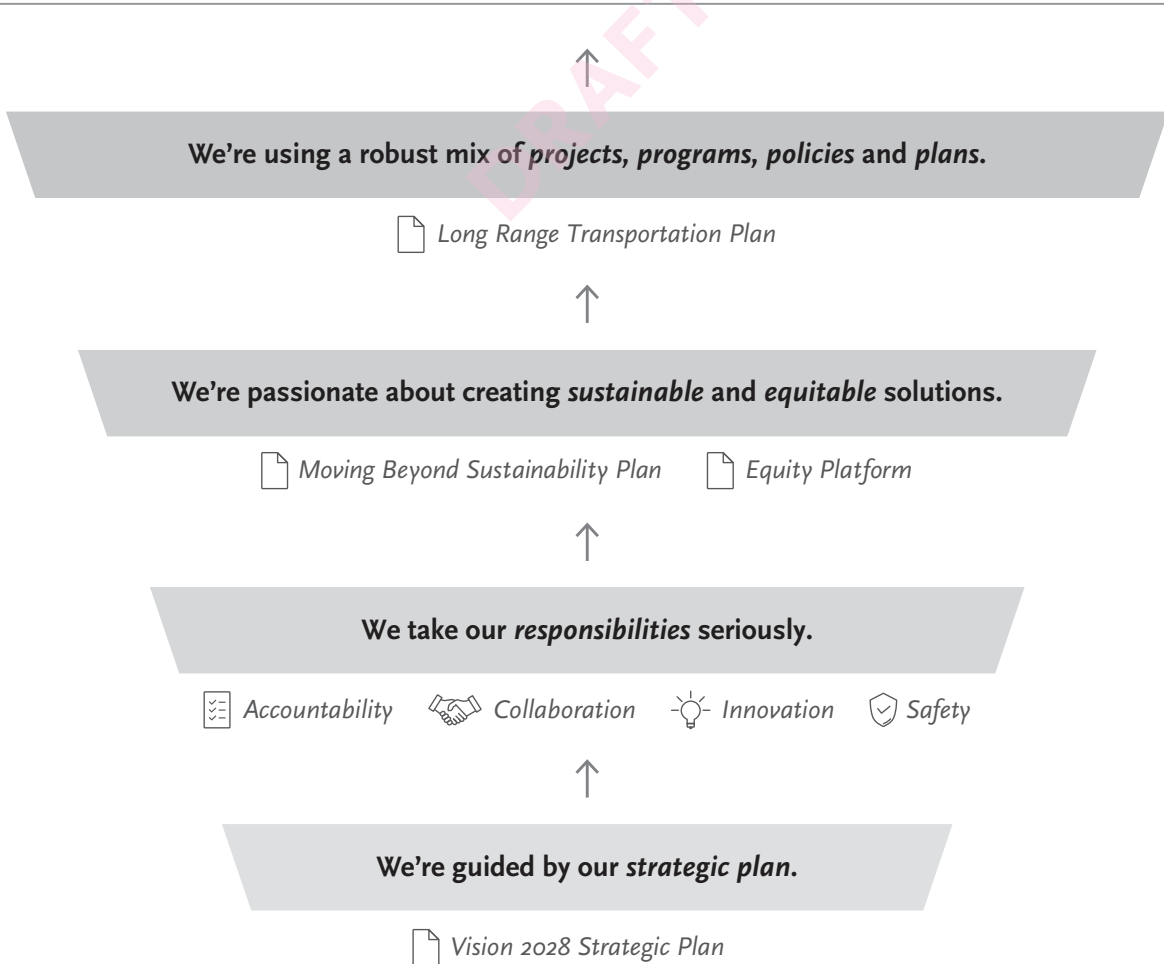
Four Priority Areas and the L RTP in Relationship to Metro’s Strategic Plan

We have a plan for a better LA.

Everything Metro does ladders up to our mission – improving mobility to enhance the quality of life for you and all who live, work and play in LA County.

We’re creating:

<p>Better Transit Providing more transportation options and improving service</p>	<p>Less Congestion Managing the transportation system to reduce the amount of time people spend in traffic</p>	<p>Complete Streets Making streets and sidewalks safe and convenient for all</p>	<p>Access to Opportunity Investing in communities to create jobs and housing near transit</p>
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**OUR
NEXT**

LA* is

better transit.

DRAFT

Better transit means faster, more frequent, secure and reliable public transportation, with more options and better customer experience. We must create a world-class transit system that is competitive with driving a private vehicle and that works for riders with different trip purposes and destinations. Better transit also means an integrated and seamless trip experience on rail, bus and new mobility transportation options.

**We're investing
in more transit,
to serve
more people.**

Over the **30-year** period, Metro will invest more than **\$80 billion** to improve, expand and upgrade LA County's extensive public transit system.

This includes the construction or improvement of **22 transit corridors** and the addition of **106 miles of fixed guideway transit.**

In total, the 2020 LRTP will expand the Metro Rail network to over **200 stations** covering nearly **240 miles.**

Metro Rail Expansion

Construction is underway on several rail corridors. The Crenshaw/LAX Transit Project light rail line, expected to open in 2021, will extend from the E Line (Expo) to the C Line (Green), with a station at the Los Angeles International Airport's Automated People Mover. The Regional Connector Transit Project, scheduled to open in 2022, will connect the L Line (Gold) to the A Line (Blue) and E Line (Expo) to provide more stations in downtown Los Angeles and greater connectivity. The Westside D Line (Purple) subway extension along Wilshire Boulevard is under construction in three phases, with Section 1 from Western to La Cienega scheduled to open in 2023.

Other near-term projects include the Metro Gold Line Foothill Extension to Claremont, which recently broke ground, the East San Fernando Valley Light Rail Project, and the West Santa Ana Branch Transit Corridor.



Image to come

Bus Rapid Transit

Bus Rapid Transit (BRT) is a high-quality bus-based transit system that delivers fast, frequent service. It does this with bus-only lanes, traffic-signal priority and high-quality stations with all-door boarding. The G Line (Orange) was extended from Canoga Park to Chatsworth in 2012 and is currently undergoing further enhancements to improve operating speeds, capacity and safety by adding grade separations on major streets, closing minor streets and providing better signal priority technology.

Other near-term projects include the North Hollywood to Pasadena BRT, Vermont Transit Corridor and North San Fernando Valley Transit Corridor (Chatsworth to North Hollywood). Additionally, Measure M included funding for to-be-determined BRT corridors. The BRT Vision and Principles Study, currently underway, will identify performance standards and design criteria for future BRT projects.

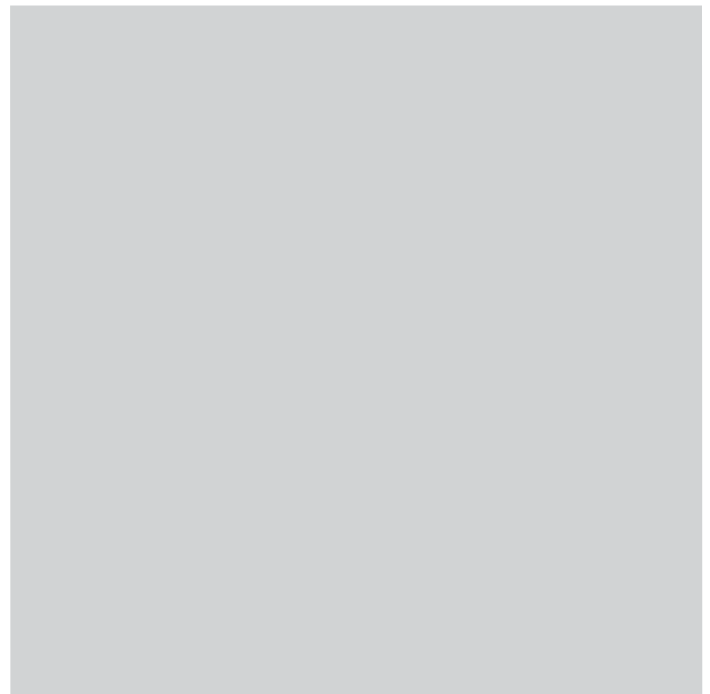


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Transit Investment

Figure 8

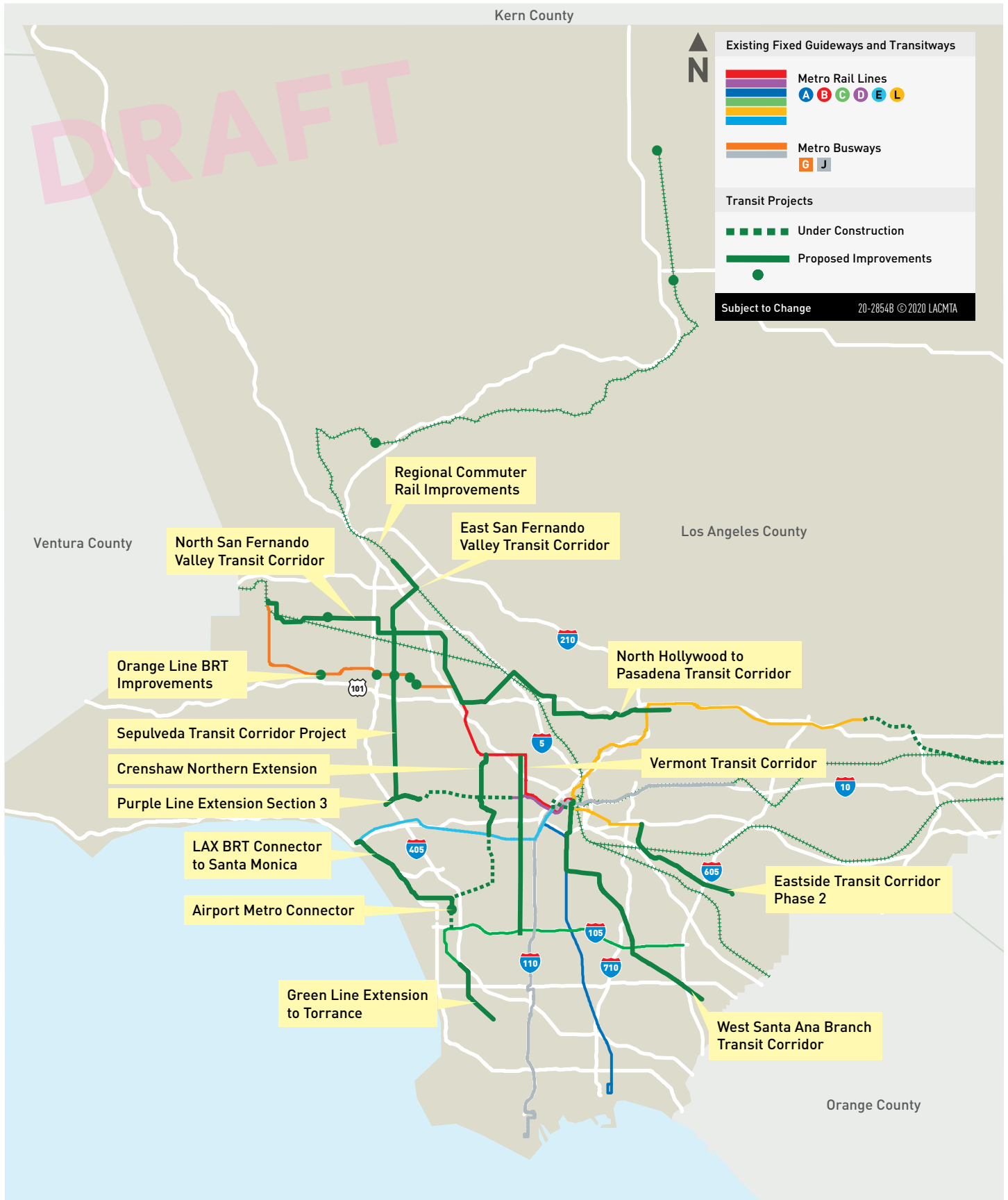
Major Transit Project		
	\$ IN MILLIONS	OPEN YEAR
Crenshaw/LAX Transit Project (LRT)	2,058	2021
Regional Connector Transit Project	1,756	2022
D Line (Purple) Extension		
Section 1 (Wilshire/Western to Wilshire/La Cienega)	2,779	2023
Section 2 (Wilshire/La Cienega to Century City/Constellation)	2,441	2026
Section 3 (Century City/Constellation to Westwood/VA Hospital)	3,224	2027
Airport Metro Connector/96th Street Station/Green Line Ext LAX	626	2024
Crenshaw/LAX Track Enhancement Project	56	2024
North San Fernando Valley Transit Corridor	207	2025
G Line (Orange) Improvements	314	2025
North Hollywood to Pasadena Transit Corridor	315	2026
East San Fernando Valley Light Rail Project	1,568	2027
Gold Line Foothill Extension to Claremont	1,571	2028
Vermont Transit Corridor	524	2028
West Santa Ana Branch Transit Corridor		
Phase 1	1,250	2028
Phase 2	5,061	2041
C Line (Green) Extension to Torrance	1,167	2030
Sepulveda Transit Corridor		
Phase 1 - Valley to Westside	7,685	2033
Phase 2 - Westside to LAX*	10,587	2057
Eastside Extension Phase 2 Transit Corridor (1st Alignment)	4,409	2035
Crenshaw Northern Extension	4,744	2047
Lincoln Bl BRT	220	2047
SF Valley Transportation Improvements	257	2050
C Line (Green) Eastern Extension (Norwalk)	1,891	2052*
G Line (Orange) Conversion to Light Rail	4,069	2057*
Historic Downtown Streetcar	581	2057*
Eastside Extension Phase 2 Transit Corridor (2nd Alignment)	8,707	2057*
Total	\$68,067	

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final alignments and stations to be identified during environmental processes.

*Includes projects through 2057, the horizon year of Measure M

Figure 9

PLANNED TRANSIT PROJECTS



Final alignments to be identified during environmental processes.
Map includes projects to be completed prior to 2050.

Priority Area 1: Better Transit

Strategy 1.1: Expand rail transportation countywide

Since the A Line (Blue) opened in 1990, Metro has undergone a tremendous expansion of our rail transportation system, growing to the second largest rail system in the U.S. Aided by Measure R and Measure M, Metro is continuing to build out the rail network at a rapid pace. There are four rail corridors in construction currently and many more in design and planning.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.1a. Complete Metro Rail projects in construction	●			●			
1.1b. Implement Metro Rail projects in design		●		●			
1.1c. Accelerate four "pillar" Rail projects		●					●
1.1d. Identify and plan future Metro rail expansion			●	●			●
1.1e. Complete Link Union Station (Link US) project		●		●			●
1.1f. Support Metrolink Southern California Optimized Rail Expansion (SCORE) Program		●					●

Strategy 1.2: Improve the frequency, speed and reliability of the bus and rail transit networks

Through signature efforts, including the NextGen Bus Plan and BRT Vision and Principles Study, Metro is redesigning our bus network to be faster, more frequent and reliable, as well as integrated with other LA County transit services. The first significant system update in 25 years, Metro's NextGen Bus Plan aims to slow and reverse the recent declining ridership trend.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.2a. Implement recommendations of the NextGen Bus Plan	●			●	●	●	●
1.2b. Improve average travel speeds for the bus network	●	●			●		
1.2c. Implement systemwide bus all-door boarding	●	●			●		
1.2d. Implement systemwide transit signal priority for bus and rail transit	●	●			●		●
1.2e. Support complementary paratransit service	●				●		●
1.2f. Continue coordination between Metro and municipal bus operators	●						●
1.2g. Implement new Intelligent Transportation System to better match travel/transit demand and transit service		●			●		
1.2h. Implement Metro BRT projects in design		●		●			●
1.2i. Implement future BRT corridors identified in BRT Vision and Principles study			●	●			●
1.2j. Complete G Line (Orange) Improvements	●	●		●		●	

Crenshaw/LAX Transit Project

The Crenshaw/LAX Transit Project, currently in construction, will extend from the existing E Line (Expo) at Crenshaw 8.5 miles southwest to the C Line (Green). Opening in 2021, the Crenshaw Line will add eight new stations, including one at the Automated People Mover currently under construction at the Los Angeles International Airport (LAX). Along the line, Destination Crenshaw, a 1.3-mile open-air museum will celebrate the African American culture and community of the corridor. The project will create pocket parks with culturally stamped sidewalks, lighting and landscaping improvements, business facades and public structures.

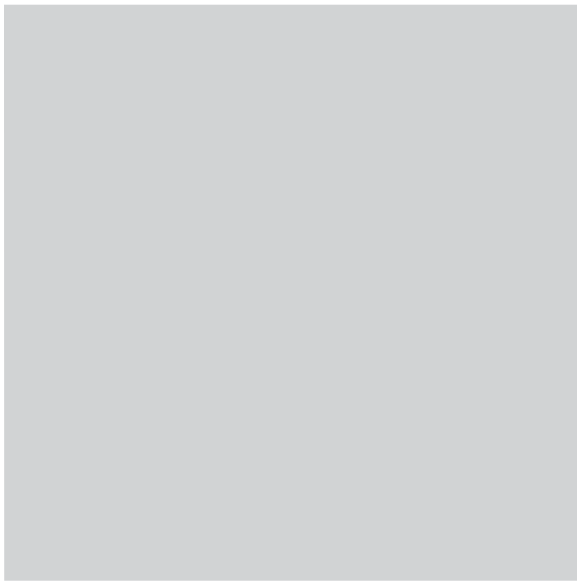


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Bus-Only Lanes

In order to make transit truly competitive with driving, Metro is working with local agencies to convert key sections of curb lanes to bus-only lanes. Two recent examples of bus-only lanes include the Wilshire Boulevard and Flower Street bus lanes. Metro's 720 Rapid bus operates on dedicated curbside bus lanes along Wilshire Boulevard from the western edge of downtown Los Angeles to the eastern edge of the City of Santa Monica (excluding Beverly Hills). The Flower Street bus lane is a pilot, weekday evening rush hour (3–7pm) bus-only lane along Flower Street between 7th Street and Adams Boulevard.

NextGen Bus Plan

In 2018, Metro began the process of reimagining our bus system to better meet the needs of current and future riders. The proposed plan, recently released for public comment, proposes improvements, which would double the number of frequent Metro bus lines; provide more than 80% of current bus riders with 15-minute or better frequency; create an all-day, every day service; ensure a one quarter-mile walk to a bus stop for 99% of current riders; and create a more comfortable and safer waiting environment. The “Transit First” approach would include capital projects that speed up buses (bus lanes and traffic signal priority, etc.), make bus stops more comfortable, expand all-door boarding and add even more frequent services, among other improvements.



Image to come

Strategy 1.3: Enable easier fare payment

A convenient, integrated fare payment that is accessible to all residents is essential for a world-class transportation system. Metro is expanding payment options in partnership with regional operators for a seamless payment experience. While TAP is already integrated across many services, customers will soon be able to pay for their fare through a mobile app.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.3a. Integrate payment for third-party mobility services		●					●
1.3b. Expand TAP integration with all regional partners	●						●
1.3c. Develop TAP mobile app		●					●

Strategy 1.4: Enhance station areas

To deliver excellent transit experiences, Metro is committed to improving stations and surrounding areas to be safe, smart, clean and green.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.4a. Integrate systemwide station design	●			●			
1.4b. Improve availability of real-time arrival information	●				●		
1.4c. Increase shading and cooling at transit stations	●			●		●	●
1.4d. Improve bus shelter amenities in partnership with local jurisdictions	●			●		●	●
1.4e. Implement Metro's Supportive Transit Parking Program Master Plan	●			●			
1.4f. Increase video monitoring and environmental design for security and safety	●				●		

Strategy 1.5: Explore new service delivery

With new and competing transportation options, Metro must embrace new forms of mobility to attract and retain riders. In partnership with Via, Metro has implemented a Mobility on Demand pilot program with free, accessible and on-demand rides. The MicroTransit Program (MTP) will begin serving six service areas in Spring 2021 with the goal of capturing short trips around high transit ridership zones.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.5a. Implement Mobility on Demand (MOD) partnership with Via	●						●
1.5b. Implement MicroTransit Pilot Project (MTP)	●				●		
1.5c. Launch Mobility as a Service (MaaS) platform		●					●

Strategy 1.6: Enhance customer experience

Metro strives to deliver excellent customer experience, providing transit that is convenient, comfortable and enjoyable for all riders. We are creating a system that is modern and intuitive, using design, technology and policies to address the unique needs of our customers.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.6a. Implement practices from Transfer Design Guide	●			●	●		●
1.6b. Support passengers with disabilities	●				●		●
1.6c. Develop Gender Action Plan to address unique needs of women	●				●		
1.6d. Ensure transit experience is clean and comfortable	●					●	
1.6e. Implement Facilities Assessments to maintain a state of good repair	●					●	

Accessible Wayfinding

Metro is testing wayfinding strategies for the visually impaired so they can more easily navigate the transit system. This technology, NaviLens, allows users to access arrival and departure information and descriptions of how to get to different platforms at Union Station from a mobile application. The pilot deployment of NaviLens technology has allowed visually impaired riders to feel more comfortable traveling alone and improved the experience for passengers with disabilities.

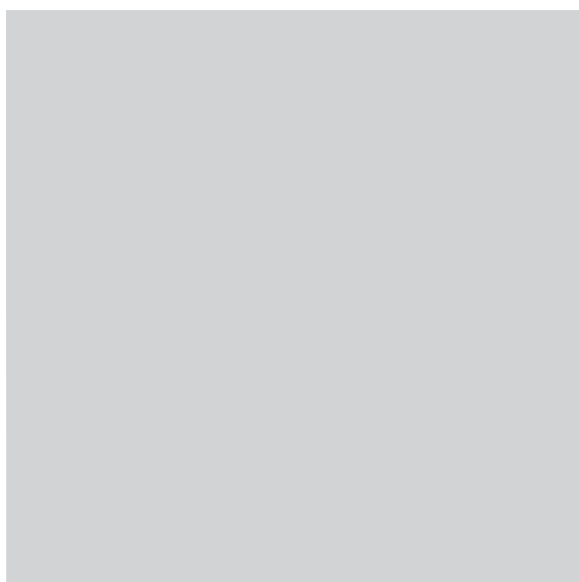


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How Women Travel

Metro was the first transit agency in the nation to study and report on women’s unique mobility needs. This 2019 report found that women take more Metro trips, ride public transit more often and prioritize safety more often than men. Metro is taking action on these findings by developing a Gender Action Plan to improve the rider experience for women, including rethinking communications, fare policies, station design and service hours.

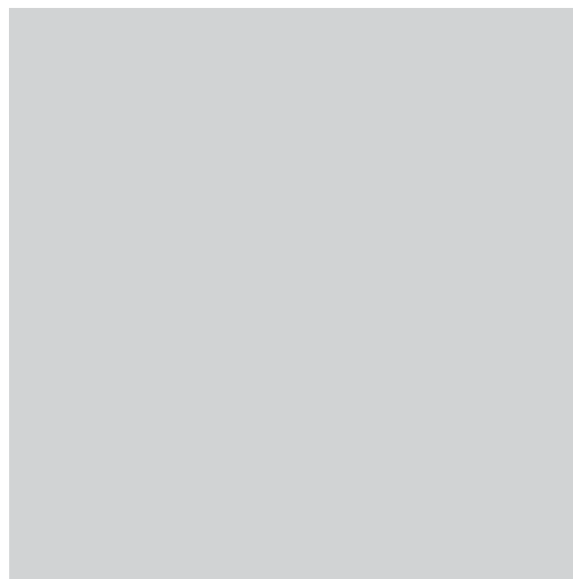


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Strategy 1.7: Enhance transportation system security and build public trust

Customer safety is a top priority for Metro. We must continue to address safety concerns, while at the same time, build trust between our riders, communities and partners, public safety professionals and Metro employees.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.7a. Introduce the Transit Homeless Action Plan 2.0	●				●		●
1.7b. Expand the Multi-Agency Policing Plan to include Metro's system expansion plans	●				●		●
1.7c. Launch Metro's new and improved Sexual Harassment Plan	●				●		●
1.7d. Develop new overall security-enhancing measures for the entire system to include environmental station design	●				●		
1.7e. Update the Security & Emergency Preparedness Plan and Metro Training		●			●		
1.7f. Open and operate the Emergency Security Operations Center			●		●		
1.7g. Enhance Emergency Management, Continuity of Operations, and Emergency Operations Procedures to national certification levels	●						●

Strategy 1.8: Optimize sustainable and resilient operations and maintenance of fleet, infrastructure and facilities

Better transit includes sustainable and efficient transit systems. Metro employs life cycle and efficiency considerations for buses, maintenance yards and resource acquisition.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.8a. Implement Transit Asset Management Plan	●					●	
1.8b. Develop and implement an agency-wide Sustainable Acquisition Program	●				●		
1.8c. Integrate resource conservation, life cycle and efficiency considerations into Metro's operational and construction policies, Standard Operating Procedures (SOPs) and specifications	●					●	
1.8d. Develop and implement materials, construction and operations-related training for Metro staff, partners and community to facilitate a culture of sustainability and resiliency	●					●	●
1.8e. Transition to zero emission buses systemwide	●	●			●		
1.8f. Modify the B Line (Red)/D Line (Purple) maintenance yard	●			●			

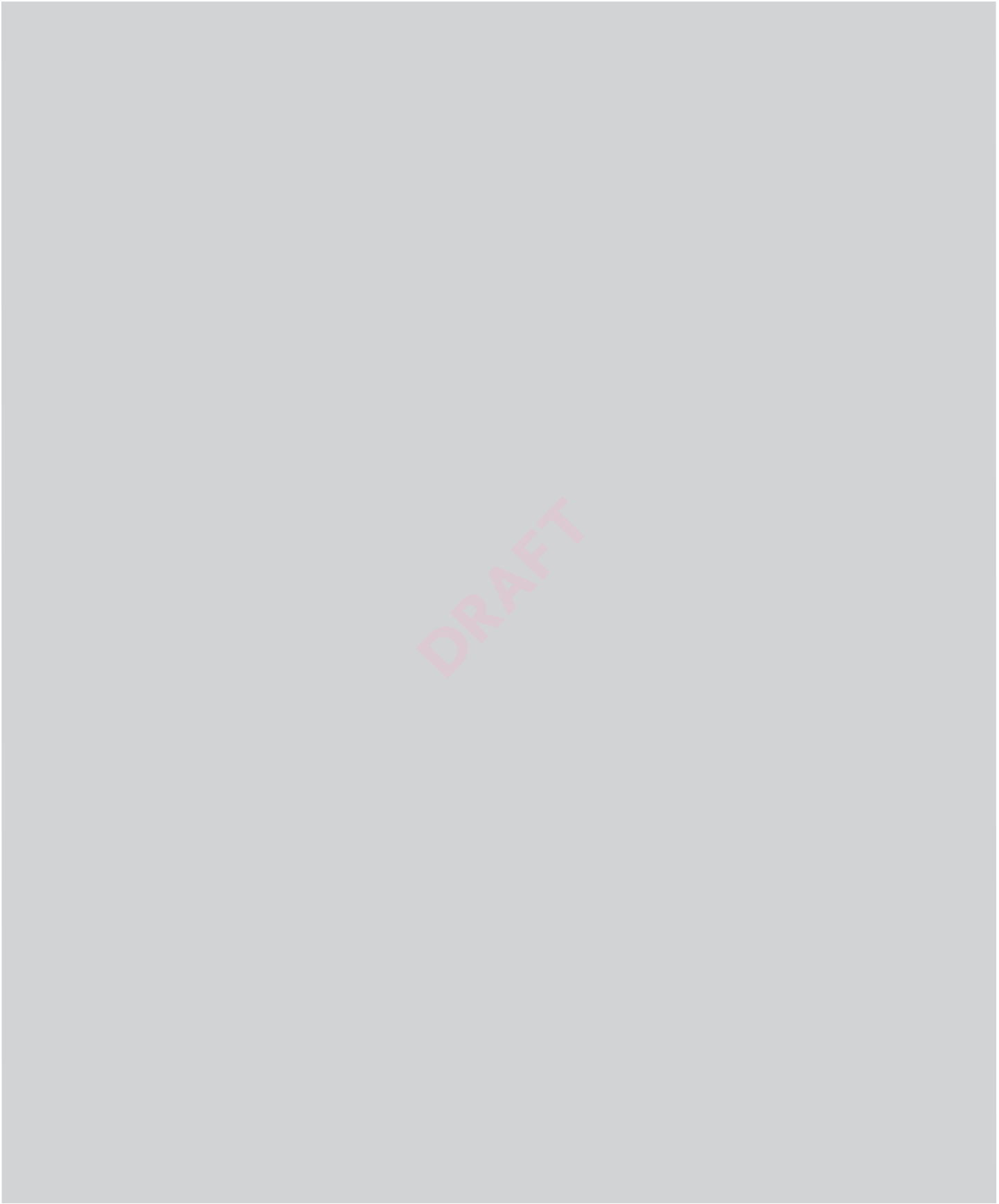


Image to come

More transit trips mean more opportunity.

Transit improvements in the 2020 LRTP, including the expansion of Metro Rail and Bus Rapid Transit, will help add more than 1,000,000 daily transit trips, an increase of 81%. For commute trips, this has the potential to increase transit mode share for daily trips to and from work from 8.8% to 14.7%.

■ **Future Trend (2047)**
■ **With 2020 LRTP (2047)**

Figure 10
Daily Transit Trips

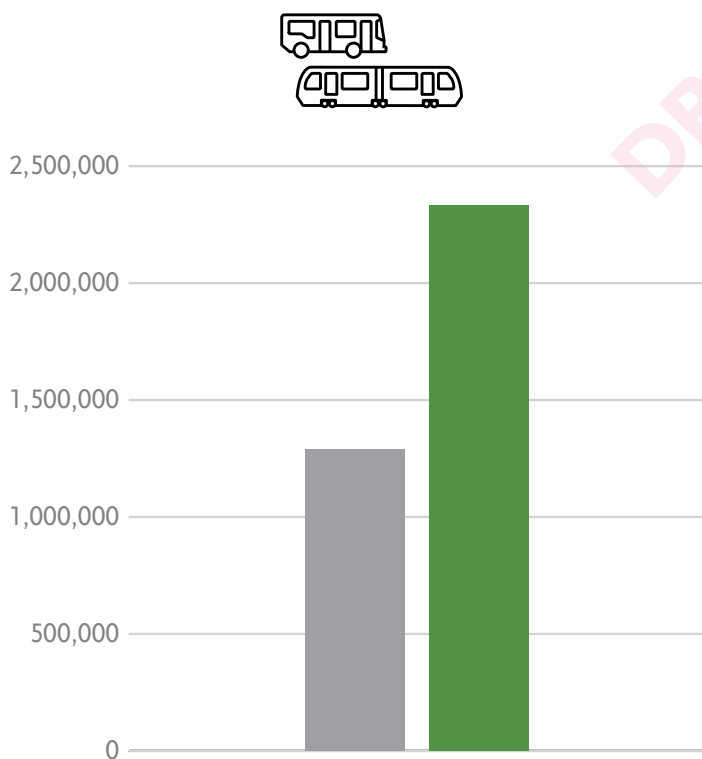
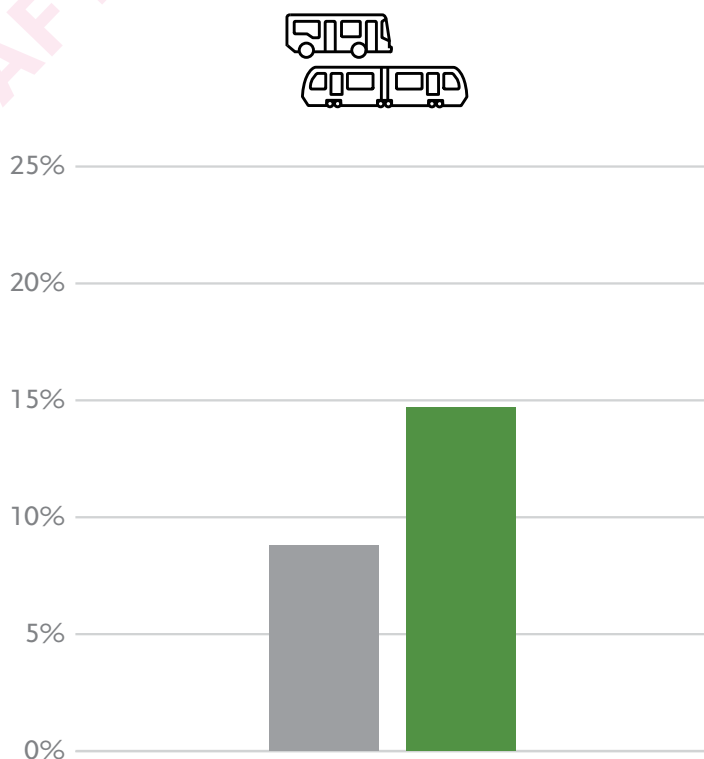


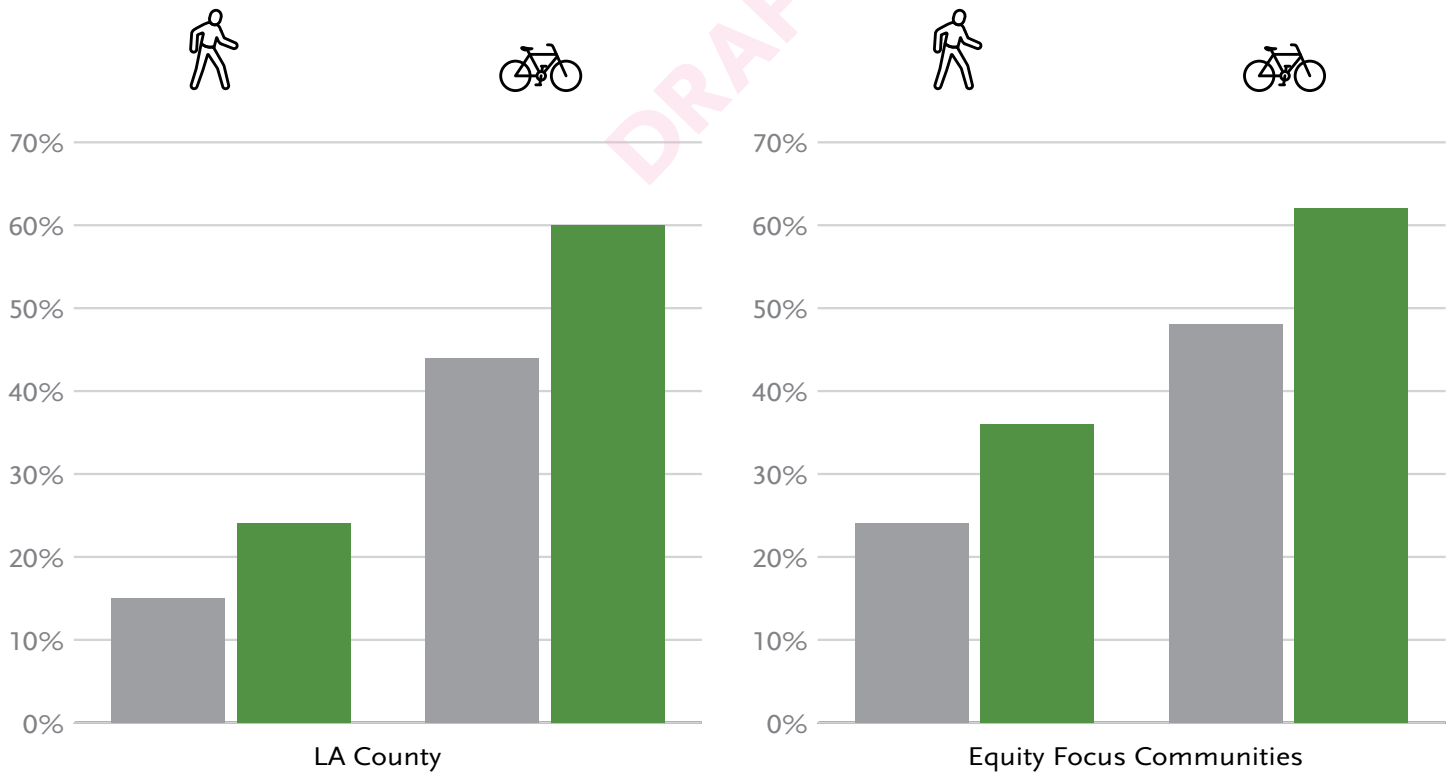
Figure 11
Transit Mode Share for Commute Trips



Better transit means access to fast, frequent and reliable public transportation. Through the expansion of rail and bus rapid transit, the 2020 L RTP will increase the percentage of households within a 10-minute walk and roll of fixed guideway transit. Countywide, the percentage of households will increase by 133% (walk) and 38% (roll). In Equity Focus Communities (see page 57), the percentage of households increase by 86% and 18% for walk and roll, respectively.

Figure 12

Percent of Households within a 10-minute Walk or Roll of Fixed Guideway Transit



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Less congestion means options to bypass traffic, and improved travel times for you. We do this by using technology and policies to manage traffic flow, respond to incidents and increase the efficiency of the roadway transportation system.

We're investing
in our roadways
and the
communities
that use them.

Metro, in partnership with the California Department of Transportation (Caltrans), advances the planning, environmental clearance, design and construction of major capital projects such as carpool lanes, freeway widening, interchange improvements, auxiliary lanes, freeway ramp improvements and other freeway capacity and operational improvement projects. Metro also works with local agencies to implement smaller scale improvements such as arterial widenings, intersection upgrades, ramp metering, traffic signal synchronization, corridor management and intelligent transportation system (ITS) solutions.

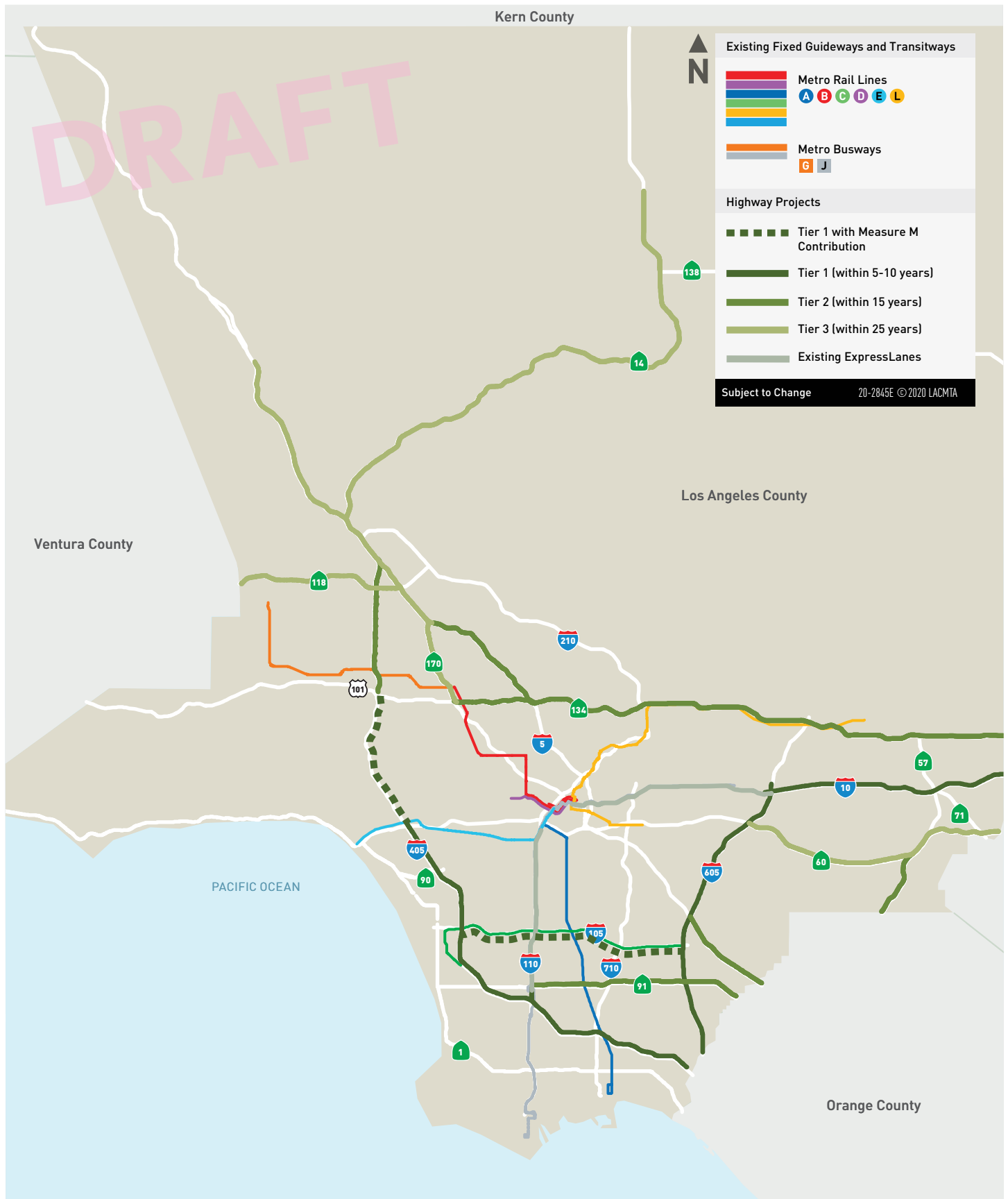
The 2020 LRTP includes more than **\$105 billion** in roadway investments, including operations and maintenance, active transportation and multi-modal projects, support for local cities and subregions, as well as more than **\$22 billion** for major highway investments.

ExpressLanes

In 2012, the carpool lanes on I-110 and I-10 were converted to ExpressLanes, where single occupant vehicles (SOVs) are given the option to pay a variable fee to use the lanes and avoid delay, while carpoolers, vanpoolers and buses are permitted to use the lanes at no charge. By using variable pricing based on the current usage level, traffic flow in the ExpressLanes is continuously managed to maintain speed and flow, providing a more reliable option. The 2017 Countywide ExpressLanes Strategic Plan established a vision for a network of ExpressLanes throughout LA County. Targeted corridors have been identified by tiers, with near-term potential (Tier 1) within five to 10 years, mid-term potential (Tier 2) within 15 years, and longer-term potential (Tier 3) within 25 years. The ExpressLanes Strategic Network is illustrated in Figure 13.

Figure 13

EXPRESSLANES STRATEGIC NETWORK



Highway Investment

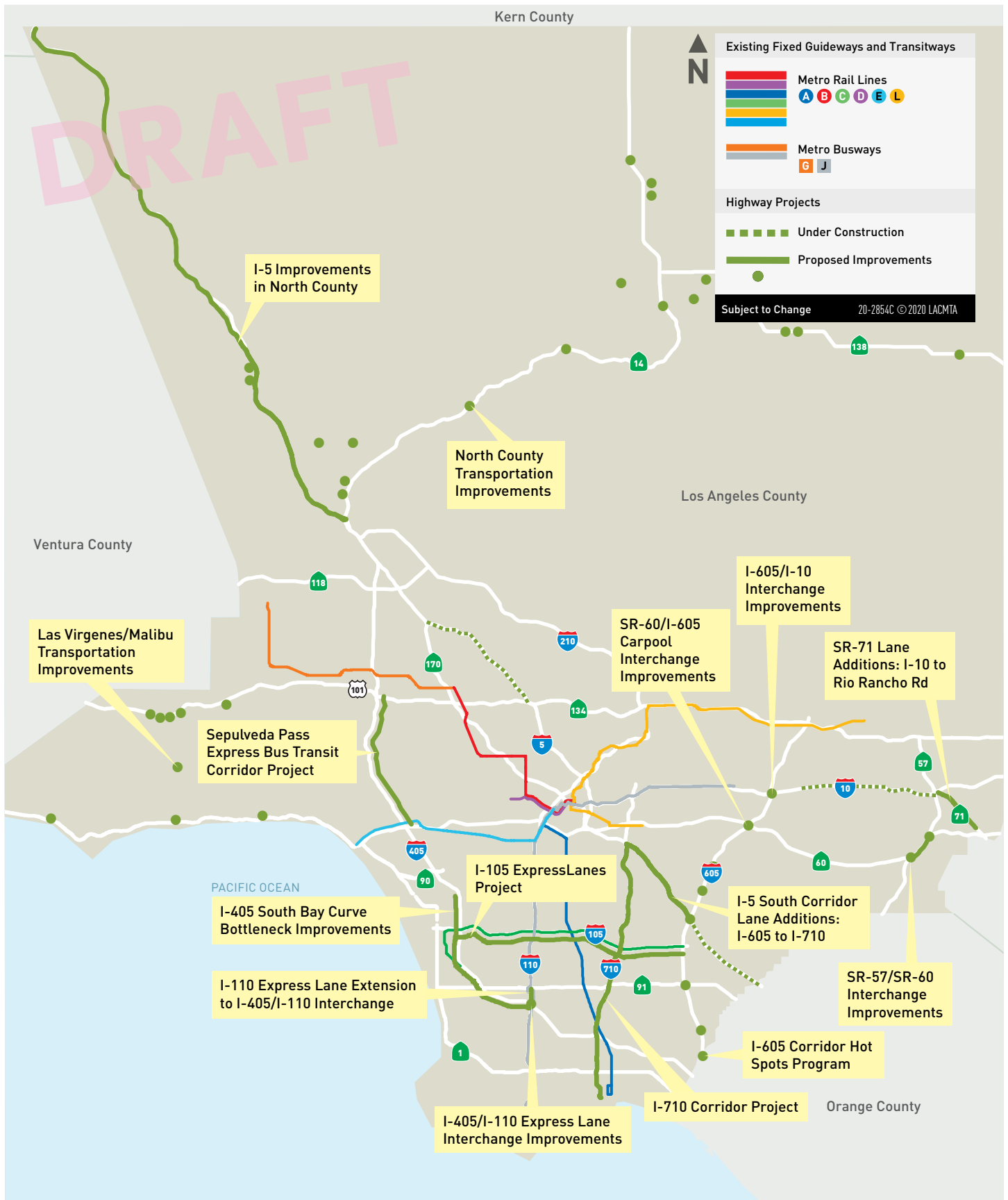
Figure 14

Major Highway Projects		
	\$ IN MILLIONS	OPEN YEAR
I-5 Capacity Enhancement (I-605 to Orange County Line)	1,410	2023
I-5 North Carpool Lanes – SR-134 to SR-170	637	2023
Alameda Corridor East Grade Separations Phase II	1,685	2024
SR-71 Gap from I-10 to Rio Rancho Rd	379	2025
I-105 ExpressLanes from I-405 to I-605	530	2025
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd)	679	2026
Sepulveda Pass Transit Corridor (Ph 1)	311	2026
Highway Operational Improvements in Las Virgenes/Malibu subregion	175	2026
SR-57/SR-60 Interchange Improvements	422	2027
Highway Operational Improvements in Arroyo Verdugo subregion	170	2030
High Desert Multi-Purpose Corridor (HDMC)	393	2034
I-405, I-110, I-105 and SR-91 Ramp and Interchange Improvements (South Bay)	1,413	2039
Countywide Soundwall Construction	590	2040
I-710 South Corridor Project (Ph 1)	5,697	2040
I-710 South Corridor Project (Ph 2)	1,512	2041
I-5 Corridor Improvements (I-605 to I-710)	2,036	2042
I-405/I-110 Int. HOV Connect Ramps & Interchange Improvements	504	2044
I-110 ExpressLanes Ext South to I-405/I-110 Interchange	599	2046
I-605/I-10 Interchange	1,287	2047
SR 60/I-605 Interchange HOV Direct Connectors	1,055	2047
I-405 South Bay Curve Improvements	883	2047
SR-710 North Corridor Mobility Improvement Projects	1,086	Varies
Total	\$22,399	

LRTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final alignments and limits to be determined during environmental processes.

Figure 15

PLANNED HIGHWAY PROJECTS



Final alignments to be included during environmental processes.

Priority Area 2: Less Congestion

Strategy 2.1: Implement operational improvements with technology

By implementing technology improvements, Metro aims to manage congestion, improve safety and provide more reliable travel times. Metro embraces technology to advance operational improvements, including through the Regional Integration of Intelligent Transportation Systems (RIITS) and the Countywide Signal Priority Program.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.1a. Implement integrated corridor management (ICM) projects, including the I-210 Connected Corridors project		●			●		●
2.1b. Integrate freeway Intelligent Transportation Systems (ITS) strategies	●				●		
2.1c. Implement arterial ITS programs, including Countywide Signal Priority Program	●				●		●
2.1d. Prepare for connected and autonomous vehicles (CAV) and implement other smart highway strategies			●		●		●

Strategy 2.2: Improve traveler information

Real time, accurate travel information is an importance resource for managing roadway congestion. Metro plays a vital role as a regional agency to collect and share information with local partners and residents.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.2a. Continue and improve 511 system	●				●		●
2.2b. Share transportation information with regional partners	●						●

Strategy 2.3: Expand the managed lane network

Metro understands that we cannot add new lanes to most freeways, so to improve traffic flow, we must manage our system better. Managed lanes, such as high-occupant vehicle (HOV) lanes and high-occupancy toll (HOT) lanes, help optimize the traffic flow in one or two lanes, thereby increasing the capacity of the whole corridor. HOT Lanes, called ExpressLanes in LA County, allow carpoolers to travel for free, while allowing solo drivers to pay a dynamically priced toll.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.3a. Extend the high-occupancy vehicle network	●			●			●
2.3b. Complete the Tier 1 ExpressLanes network	●	●		●	●		●
2.3c. Complete HOV and ExpressLanes direct connectors (I-105/I-605; I-110/I-405; I-605/SR-60)		●		●			●
2.3d. Complete the Tier 2 ExpressLanes network			●	●	●		●
2.3e. Complete the Tier 3 ExpressLanes network			●	●	●		
2.3f. Evaluate financial policies to expand the ExpressLanes system using revenues generated from the existing network	●				●		●

Integrated Corridor Management

Caltrans, Metro, and local agencies are piloting the I-210 Connected Corridor project that includes Integrated Corridor Management (ICM) strategies along I-210 in the San Gabriel Valley. 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.

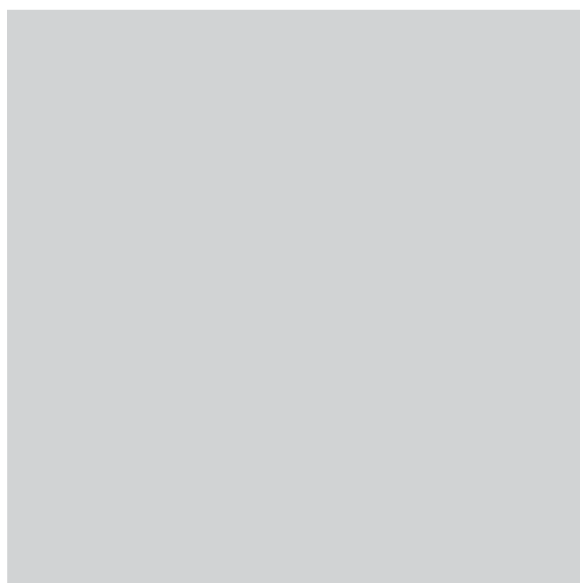


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ExpressLanes Expansion

ExpressLanes are dynamically priced based on real-time traffic demand on the facility to ensure vehicles travel at least 45 miles per hour in the ExpressLanes. This helps optimize the traffic flow in the ExpressLanes and provides a more reliable option when traffic in the other lanes slows down. The I-110 and I-10 ExpressLanes have saved commuters, on average, six minutes during peak morning commutes and has led to increased bus ridership on express bus routes that use the lanes. Additionally, according to surveys, 81% of ExpressLanes users would likely support the expansion of ExpressLanes on other freeways. In fact, Metro has plans to build a network of ExpressLanes countywide.

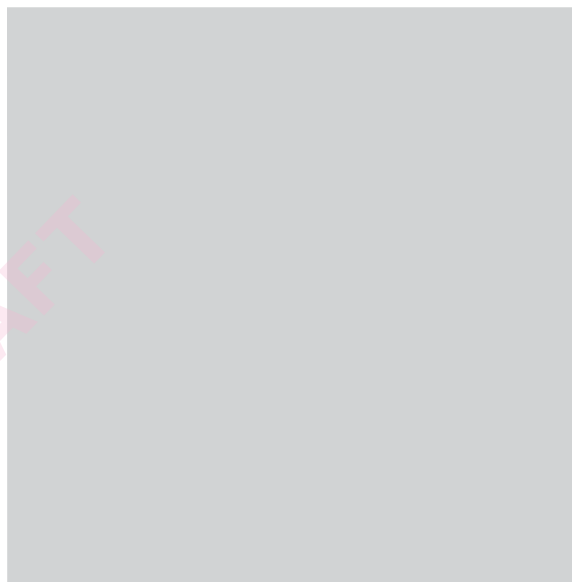


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Regional Integration of ITS (RIITS)

RIITS is a program that enables the efficient compilation, management and exchange of transportation information. RIITS integrates and presents transportation information via data feeds to allow government agencies to exchange data with each other, and provides private companies access to the data to share with the public. RIITS consists of a physical network, operational system and administrative processes in support of real-time exchange of information among agencies in Southern California. Information is currently exchanged with Caltrans Districts 7, 8 and 12, Los Angeles Department of Transportation, California Highway Patrol (CHP), Metro, Foothill Transit, LA County Department of Public Works and others.

Strategy 2.4: Minimize impact of roadway incidents

Metro aims to quickly and safely clear roadway incidents to improve traffic flow and lessen congestion. The Kenneth Hahn Callbox System and Metro Freeway Service Patrol work together to allow for quick response and clearance of stalled vehicles on the freeway.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.4a. Continue and expand Metro Freeway Service Patrol	●				●		
2.4b. Continue the Kenneth Hahn Callbox System	●					●	●

Strategy 2.5: Support efficient goods movement

LA County's extensive transportation network serves as the backbone to the nation's freight transportation system. The LA County Goods Movement Strategic Plan, under development with stakeholders across the county, will develop a comprehensive approach that balances various goals, including efficient and effective flow of goods to support economic sustainability and prosperity.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.5a. Implement LA County Goods Movement Strategic Plan			●		●		●
2.5b. Develop curbside mobility improvements in partnership with regional agencies	●				●		●
2.5c. Invest in multi-modal freight improvement options (rail investment and clean truck program)				●			●
2.5d. Improve freight traveler information sharing	●				●		●

Strategy 2.6: Enhance regional circulation

The transportation system is a network that requires systematic approaches to address regional circulation issues. Metro is exploring regulatory and pricing mechanisms, as well as the expansion of current programs to manage demand and enhance circulation.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.6a. Implement New Mobility Regional Roadmap, a framework for building a countywide coalition to collectively determine the best path forward for managing new mobility	●				●		●
2.6b. Complete Traffic Reduction Study that will explore how congestion pricing and additional transportation options could work together to reduce traffic congestion and increase mobility	●			●	●		●
2.6c. Recommend a pilot traffic reduction program after completion of the Traffic Reduction Study			●				●
2.6d. Continue to expand Metro Rideshare/Vanpool and Shared Mobility Program	●	●					●
2.6e. Support transportation demand management (TDM) programs and commute-trip reduction initiatives	●				●		●

Goods Movement Strategic Plan

Safe and efficient goods movement through LA County supports a vibrant quality of life for its residents and the long-term economic health and competitiveness of the region. A culture of innovation, adoption of technology such as ITS and DrayFlex, and strategic investment in our multimodal goods movement transportation system will improve the movement of goods through the Ports of Long Beach and Los Angeles and to our homes and businesses. Developing sustainability and equity strategies to overcome a history of inequitable impacts such as air pollution, displacement, and lack of investment related to freight while developing stronger skillsets and workforce opportunities for disadvantaged communities will be vital to implement the LA County's Goods Movement Strategic Plan and its Sustainable Freight Competitiveness Framework.

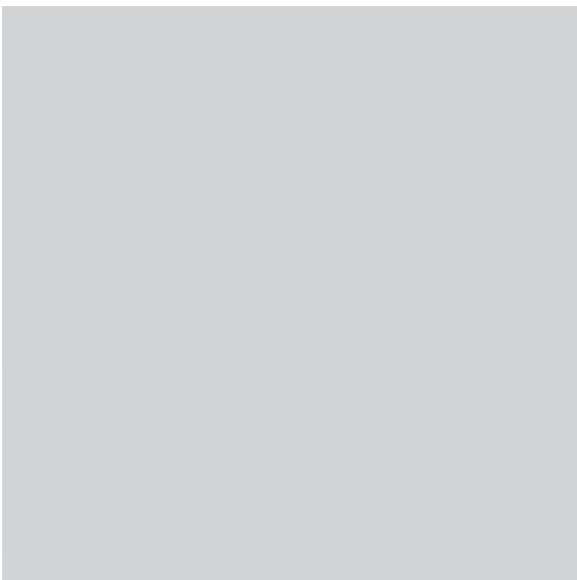


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Traffic Reduction Study

Metro is conducting a Traffic Reduction Study (formerly called the Congestion Pricing Feasibility Study), to determine if a traffic reduction program would be feasible and successful in LA County; determine where and how a pilot program with congestion pricing and complementary transportation options could achieve the project goals of reducing traffic congestion; and identify willing local partners to collaborate with on a potential pilot program. Metro will engage stakeholders and the public throughout this process. Through engagement with stakeholders, the study will explore how to affect additional positive outcomes that will benefit residents, workers, and businesses in LA County, including improving the economy, supporting environmental and economic justice, and improving health and safety.



Image to come

Strategy 2.7: Enhance the operation of the state highway system

Metro works with regional partners to plan, build and maintain projects that address highway capacity and operational efficiency. Metro continues to address key bottlenecks in LA County, some of the most congested in the US.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.7a. Construct capacity-improving projects to address freeway bottlenecks	●			●			●
2.7b. Work with Caltrans and local agencies on a system approach to create a roadway network comprising the state highways and local arterials to improve throughput and alleviate traffic congestion	●				●		●

Strategy 2.8: Improve the resiliency of Metro's transportation system

A resilient Metro system is prepared and able to mitigate future hazards that would otherwise interfere with operations, disrupt service and endanger passengers. Metro addresses system resiliency with risk assessments, decision making that considers hazards, and climate adaptation plans and policies.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.8a. Conduct and maintain a multi-hazard risk assessment to understand vulnerabilities of the transportation system	●					●	
2.8b. Incorporate considerations for all hazards into Metro decision-making about capital planning, procurement, asset management and operations	●					●	
2.8c. Regularly update resilience and climate adaptation plans and policies to address changing hazards and risks to system service	●				●		
2.8d. Implement hazard mitigation and climate adaptation strategies to increase transportation system resilience and passenger safety	●				●		

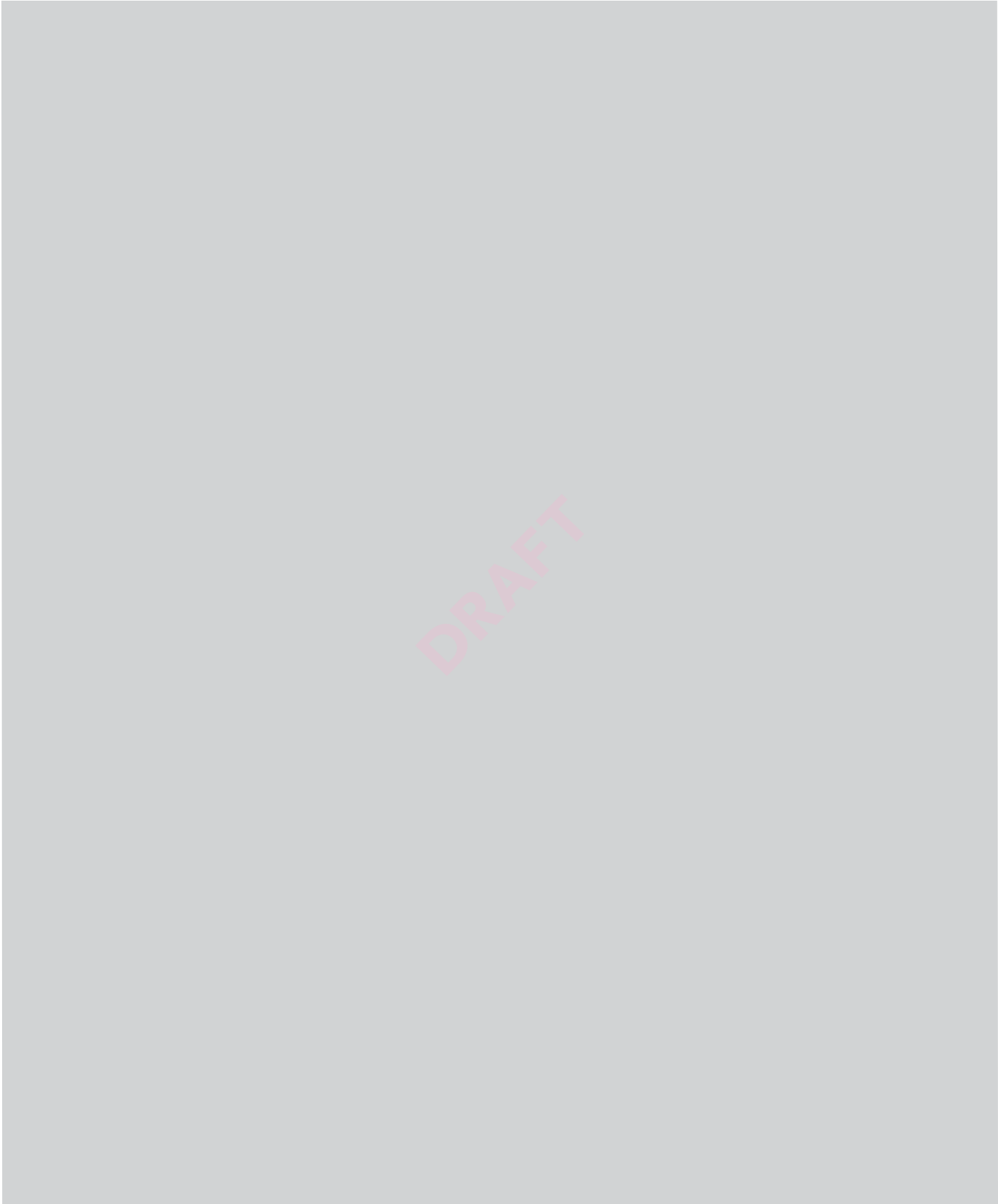


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Our congestion reduction plan means less delays for drivers.

The congestion reducing strategies included in the 2020 LRTP will lead to a reduction in vehicle miles traveled and vehicle hours of delay per capita. Compared to the future trend, the LRTP will lead to a 31% reduction in delay and a 9% reduction in vehicle miles traveled.

■ **Future Trend (2047)**
■ **With 2020 LRTP (2047)**

Figure 16

Annual Vehicle Miles Traveled Per Capita

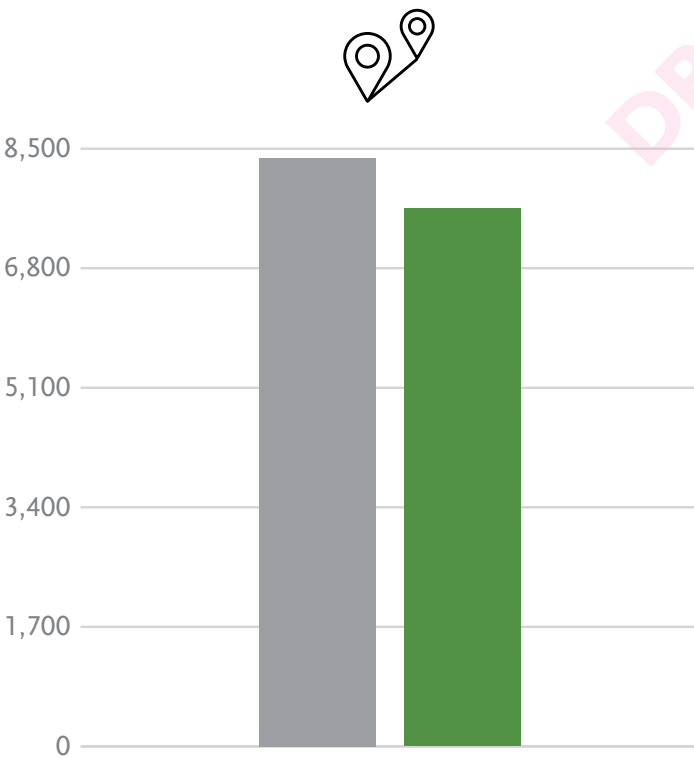
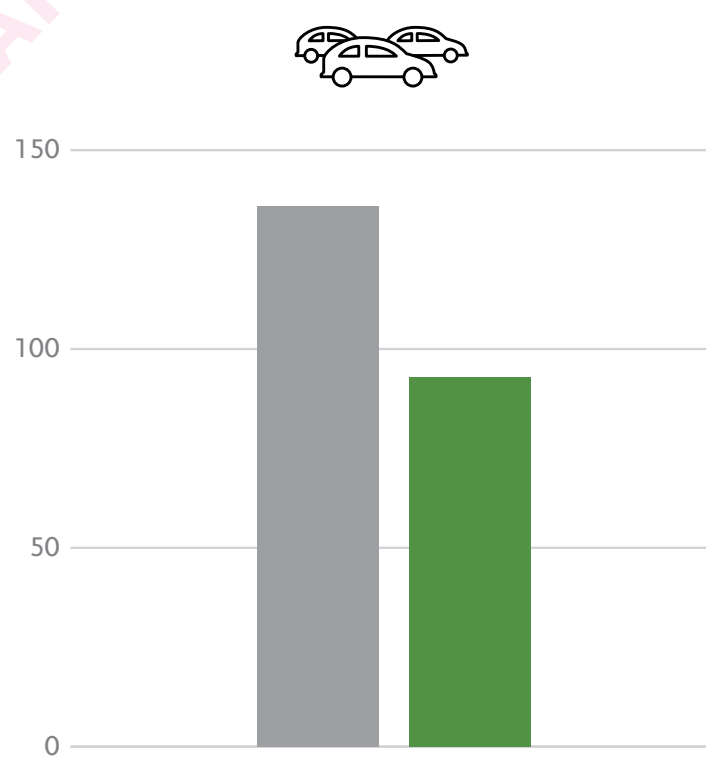


Figure 17

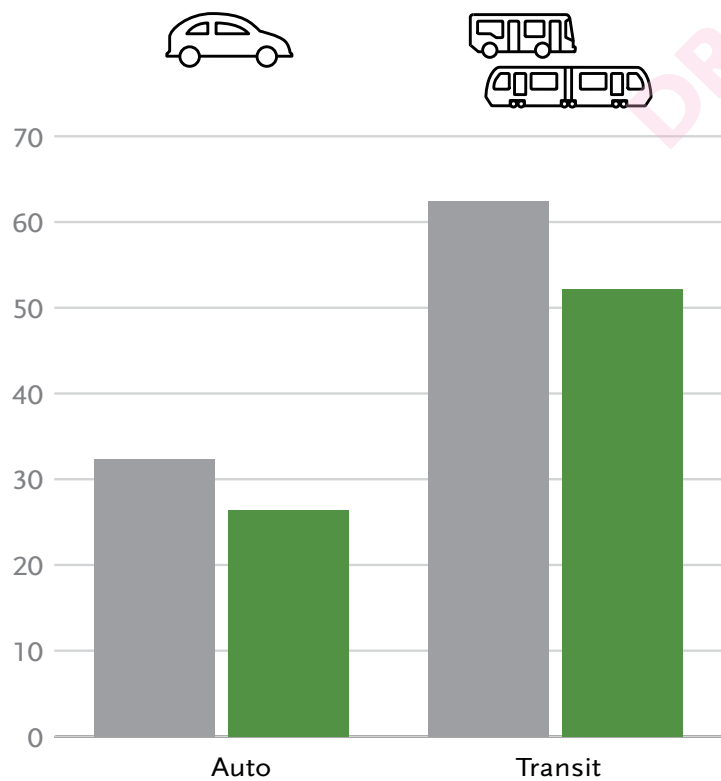
Annual Vehicle Hours of Delay Per Capita



Less congestion means better travel times for commuters. Compared to the future trend, the 2020 LRTP is projected to reduce average morning travel times by 19% for automobiles and 9% for transit trips.

Figure 18

Average Morning Travel Time (minutes)



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complete streets.

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Complete streets create a comprehensive, integrated network that utilizes infrastructure and design to allow safe and convenient travel along streets for all users. This means better connectivity and integration of all transportation modes, including active transportation, private vehicles, transit and commercial deliveries. Complete streets provide safer crossing and roadway facilities for bicyclists and pedestrians, have more greenery and fewer potholes, and help create a more environmentally sustainable transportation system.

We're investing in better options for bikes and pedestrians.

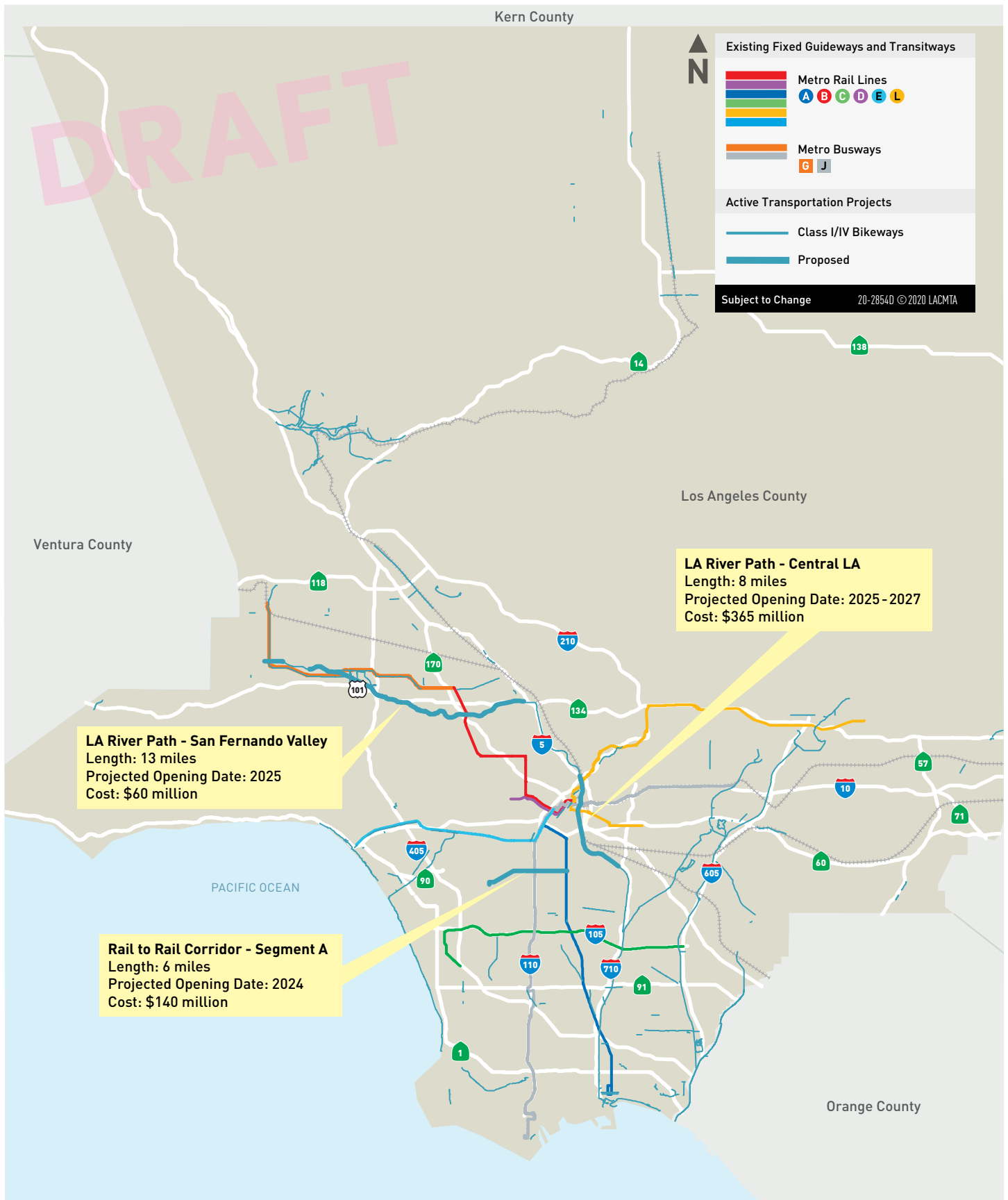
The 2020 LRTP includes close to \$7 billion in funding for active transportation projects, including major facilities and bicycle and pedestrian programs at the city level. There are several major multi-use active transportation facilities funded in the LRTP, including:

- > **Rail to Rail Active Transportation Corridor Segment A.** The Rail to Rail Active Transportation Corridor is a 5.6 mile multi-use 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.
- > **LA River Path – Central LA.** The Los Angeles River Path project is an eight-mile bicycle and pedestrian path gap closure between Elysian Valley and Maywood, through downtown Los Angeles.
- > **LA River Path – San Fernando Valley.** To complete the full LA River Path and Greenway Trail, the LA River Path will connect the San Fernando Valley to the existing LA River Path near Griffith Park. This 13-mile path will help create a 51-mile continuous active transportation corridor from Long Beach to Warner Center, and be a cornerstone of the efforts to revitalize the LA River.

In addition to the major capital commitments, Metro supports active transportation to promote walking, cycling and rolling through a series of programs, policies and investment strategies. Three important foundational documents include Metro's Complete Streets Policy (2014) First/Last Mile Strategic Plan (2014), and Active Transportation Strategic Plan (2016). Metro is investing more than \$850 million in Active Transportation grants, in alignment with Metro policies and plans. This demonstrates Metro's ongoing commitment to enhance access to transit stations, create safer streets and develop a regional network to improve mobility for people who walk, bike and take transit. Programs that support these policies include Metro's Bike Share program, our Bike Parking Program, and the First/Last Mile Program.

Figure 19

ACTIVE TRANSPORTATION CORRIDOR PROJECTS



Final alignments to be included during environmental processes.

Priority Area 3: Complete Streets

Strategy 3.1: Improve safety for all users

Metro's approach to safety is multi-pronged. In October 2014, Metro adopted a foundational Complete Streets Policy that is centered around redesigning streets with safety for all users as the top priority. Metro's vision is to prioritize safety in all projects with an overarching goal of reducing injuries and fatalities.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.1a. Implement Complete Streets Policy	•				•		•
3.1b. Implement Bicycle Education Safety Team program	•					•	
3.1c. Prioritize and incorporate safety improvements in all projects to reduce injuries and fatalities	•			•	•		•

Strategy 3.2: Enhance access to transit stations

Metro strives to enhance transit stations by implementing first/last mile projects and strategies that improve multi-modal access around stations.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.2a. Implement First/Last Mile Program, including Board policy directives from Motion 14.1 (May 2016) and 14.2 (June 2016)	•	•	•		•		•
3.2b. Implement Connect Union Station Action Plan	•			•			•
3.2c. Implement Micro Mobility Vehicles Program	•				•		•
3.2d. Provide secure bike parking options at transit stations	•			•			

Strategy 3.3: Establish active transportation improvements as integral elements of the transportation system

Active transportation refers to any non-motorized mode of travel, including walking, biking and rolling. Effective active transportation infrastructure is critical to Metro because these modes of travel provide connectivity to our transit hubs, promote public health and improve air quality.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.3a. Complete LA River Path Project	•	•		•			•
3.3b. Complete Rail to River Active Transportation Corridor	•	•		•			•
3.3c. Implement recommendations of Active Transportation Strategic Plan		•	•		•		
3.3d. Support Metro Bike Share and local bike share programs expansion	•				•		•

Complete Streets Policy

Metro's Complete Streets Policy views transportation improvements as opportunities to create safe, accessible streets for all users, including but not limited to pedestrians, public transit users, bicyclists, people with disabilities, seniors, children, motorists and movers of commercial goods. Through incremental changes in capital projects and regular maintenance and operations improvements, the street network will gradually become safer and more accessible for travelers of all ages and abilities. In partnership with state, regional and local efforts, this policy will create a more complete and integrated transportation network for all modes of travel in LA County.

LA River Path

The Los Angeles River Path project is a proposed eight-mile bicycle and pedestrian path extension between Elysian Valley and Maywood, through downtown Los Angeles and the City of Vernon. The project aims to create a safe, accessible path for people walking, bicycling and rolling to get to destinations that matter in their daily lives. The project will close an existing gap in the Los Angeles River Bike Path and Greenway Trail, providing a seamless 32-mile bicycle and pedestrian route from the San Fernando Valley to Long Beach. Completing the LA River Path will enhance recreation, livability, regional connectivity and provide an outstanding user experience, access to opportunity and separation from vehicular traffic.

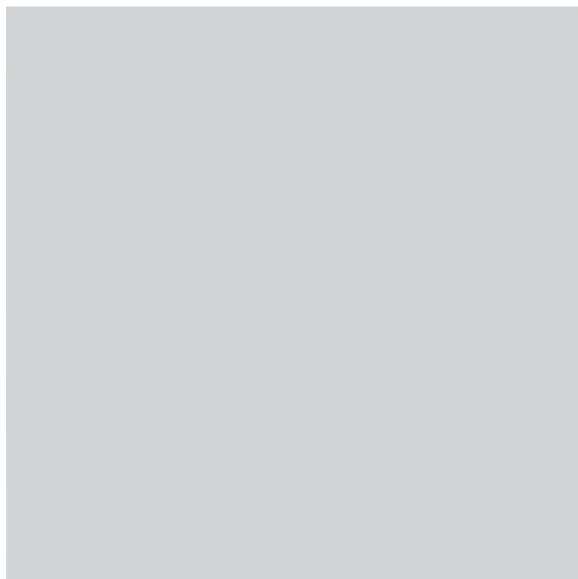


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First/Last Mile Strategic Plan

Metro developed a First/Last Mile Strategic Plan in 2014 to address the challenge that riders face getting from their home to transit and from transit to their final destination. FLM strategies extend station areas, improve safety and enhance the visual aesthetic. The plan identifies barriers and potential improvements for the FLM portions of a transit trip. It provides a systematic yet adaptable vision for implementing FLM strategies, such as:

- > Infrastructure for walking, rolling and biking (e.g., bike lanes, bike parking, sidewalks and crosswalks);
- > Shared use services (e.g., bike share and car share);
- > Facilities for making modal connections (e.g., kiss and ride and bus/rail interface);
- > Signage and wayfinding, and information and technology that eases travel (e.g., information kiosks and mobile apps).



Image to come

Strategy 3.4: Maintain a state of good repair on roadways

A safe and reliable transportation system requires that assets are maintained in a state of good repair. Metro partners and funds highway projects that upgrade or replace roadway elements to improve system safety.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.4a. Fund highway and arterial projects with state of good repair elements	•						•
3.4b. For more efficient investment, work with Caltrans to combine state highway repair and maintenance projects with Metro-funded capacity and operational enhancements	•					•	•

Strategy 3.5: Demonstrate sustainable design and construction practices

Metro strives to incorporate sustainable design and construction practices that reduce the impact of system growth. Metro aims to expand and improve the policy and related sustainability standards, while pursuing certifications set by national and state green building agencies.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.5a. Improve sustainability standards for project design and expand the Green Construction Policy (GCP)	•			•			
3.5b. Pursue green certification and implement sustainability and resiliency technical requirements and specifications	•			•			

Strategy 3.6: Reduce regional GHG and criteria air pollutant emissions

Metro is committed to reducing greenhouse gas (GHG) emissions and air quality pollutants. Transportation has the most significant impact on regional emissions, and to do our part, Metro plans to reduce our agency emissions by 79% relative to 2017 levels.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.6a. Implement projects identified in the Energy Conservation Project Portfolio	•			•			
3.6b. Decarbonize Metro's energy and fuel supply	•				•		
3.6c. Implement a Scheduled Maintenance Program for stationary and mobile emissions sources to reduce emissions	•					•	

Green Construction

Metro established a Green Construction Policy (GCP) in 2011 to reduce emissions during construction, as well as the Sustainability Plan Program to assist contractors with meeting CALGreen obligations. The GCP was updated in 2018, requiring contractors to use renewable diesel for all diesel engines and thus reducing the negative health impacts from diesel exhaust. This effort reaffirms Metro's commitment to protect the communities we serve, especially those disproportionately affected by air pollution.



Image to come

Zero-Emission Fleet

Metro will transition to zero-emission buses systemwide. The G Line (Orange) will be the first to deploy electric-battery buses as part of its improvements project, scheduled for completion by 2025. Originally planned by 2040, Metro would like to fully electrify by 2030. Metro is also taking the lead in forming a Countywide Zero-Emission Trucks Collaborative to promote consistency among public agencies in working to catalyze the development and deployment of zero-emission trucks in LA County. This collaborative will include the Ports of Long Beach and Los Angeles, Caltrans, Southern California Association of Governments and the South Coast Air Quality Management District.



Image to come

Our plan helps reduce emissions, for a healthier LA.

Safety and environmental sustainability are core tenets of complete streets strategies. The 2020 LRTP will help Metro reduce our emissions and the emissions of the transportation sector as a whole. The improvements are projected to decrease greenhouse gas (GHG) emissions by 19% and particulate matter emissions by 17% relative to the future trend.

Future Trend (2047)
 With 2020 LRTP (2047)

Figure 20

Annual Million Metric Tons of CO2 Equivalent

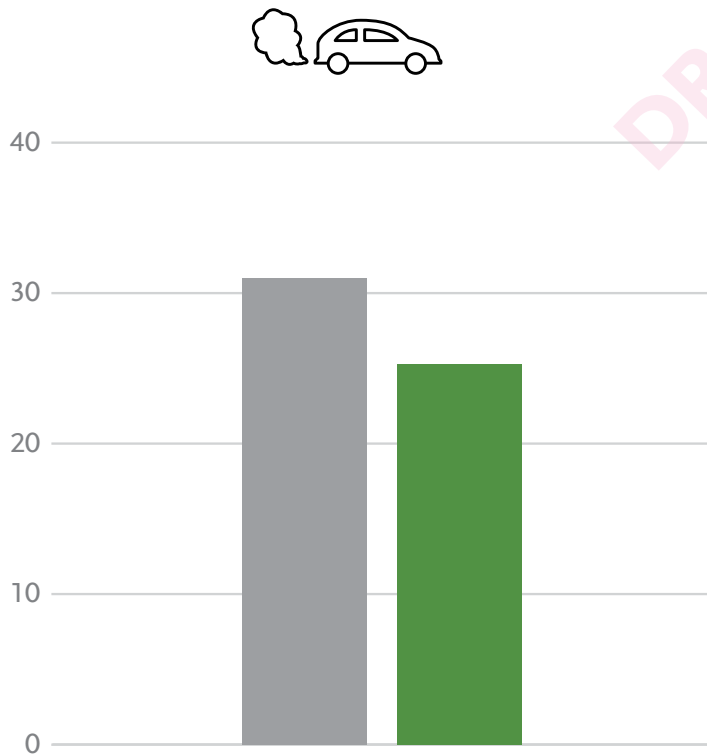
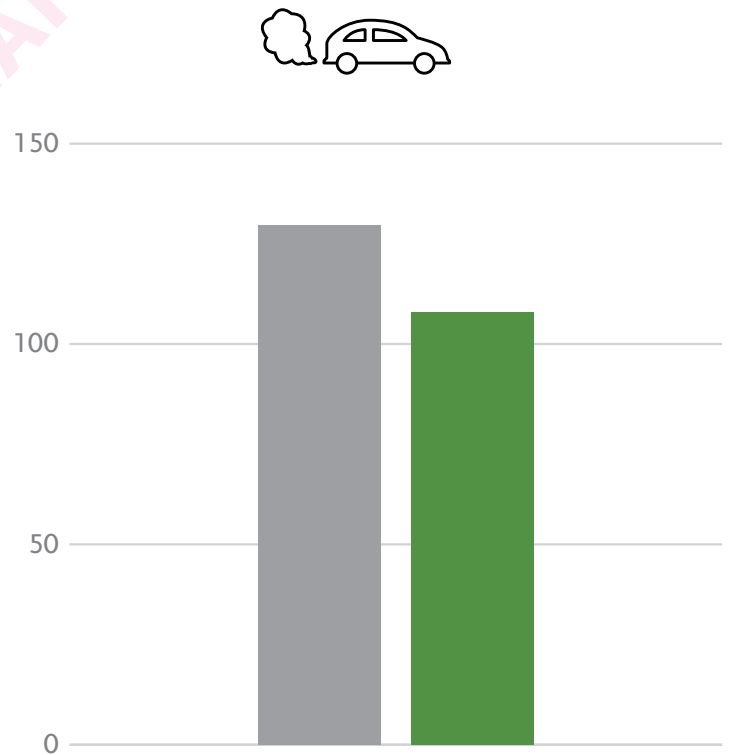


Figure 21

Annual Tons Particulate Matter (PM10)



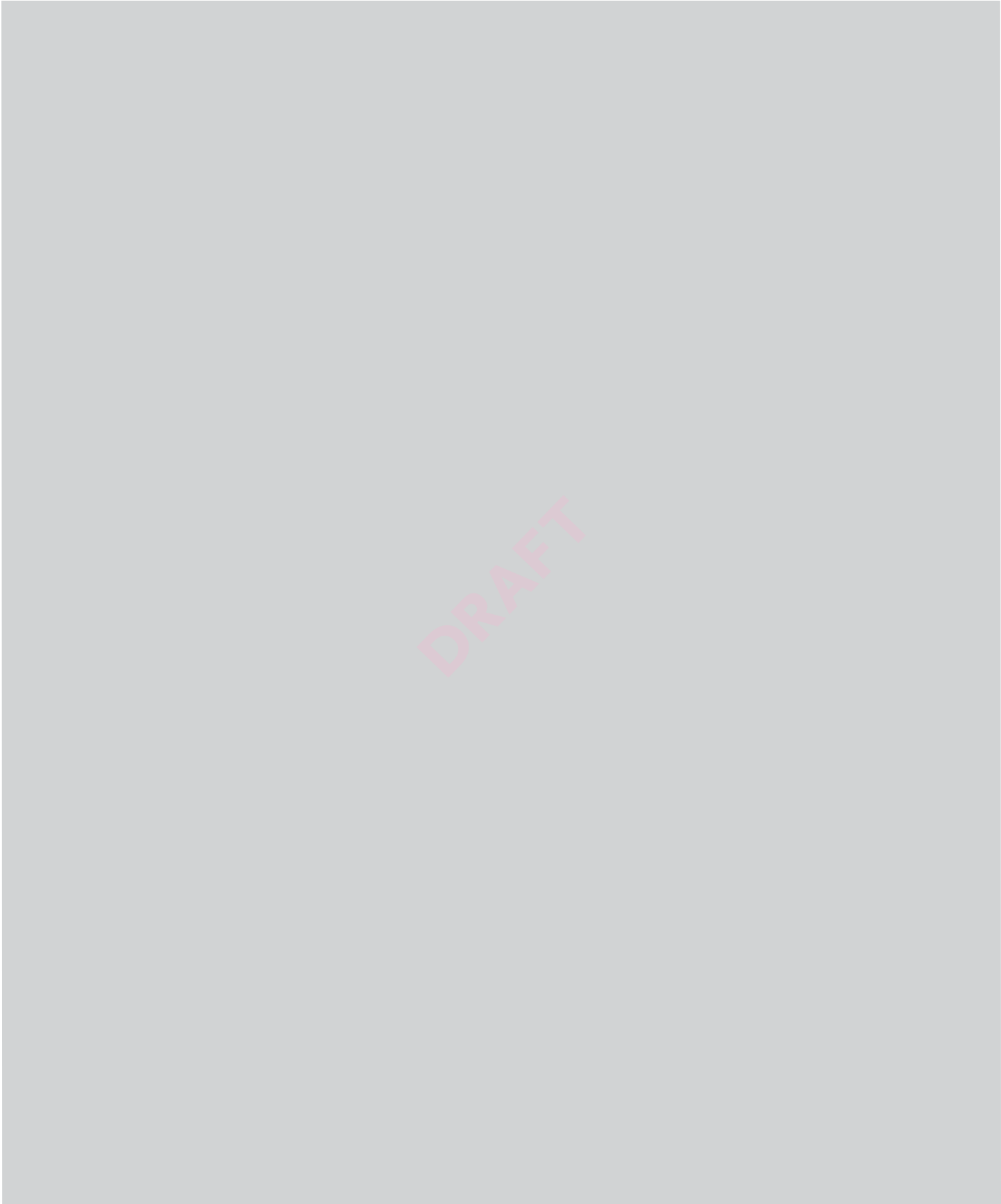


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**OUR
NEXT
LA*** *is access
to opportunity.*

DRAFT

Access to opportunity means investing in communities to connect people to what they need. Travelers must get to where they need to go, when they need to be there – from their home to their job to their daily activities. Increasing access to opportunity brings better transit closer to jobs and homes, and supports small businesses, local economies and families.

We're investing in opportunity for communities that need it most.

For a transportation system to be successful it must allow everyone it serves to reach the things they need within a reasonable period of time. Access to jobs, education, healthcare, and other essential services must be the primary focus of transportation, as a stable foundation for vibrant communities. As stewards of the transportation system, Metro is responsible for providing transportation options, improving access, and investing in communities.

In 2018, Metro adopted its Equity Platform to help ensure system changes prioritize those most in need of improved access to opportunity. Metro recognizes that there are deep-rooted and pervasive racial and socioeconomic inequities that create disparate results and impacts, even when the intention is to help all. Accordingly, we need an understanding of those disparities and an intentional focus on those faring the worst in order to truly improve access to opportunity for all. The Equity Platform is structured around four pillars: I. Listen and Learn; II. Define and Measure; III. Focus and Deliver; and IV. Train and Grow.

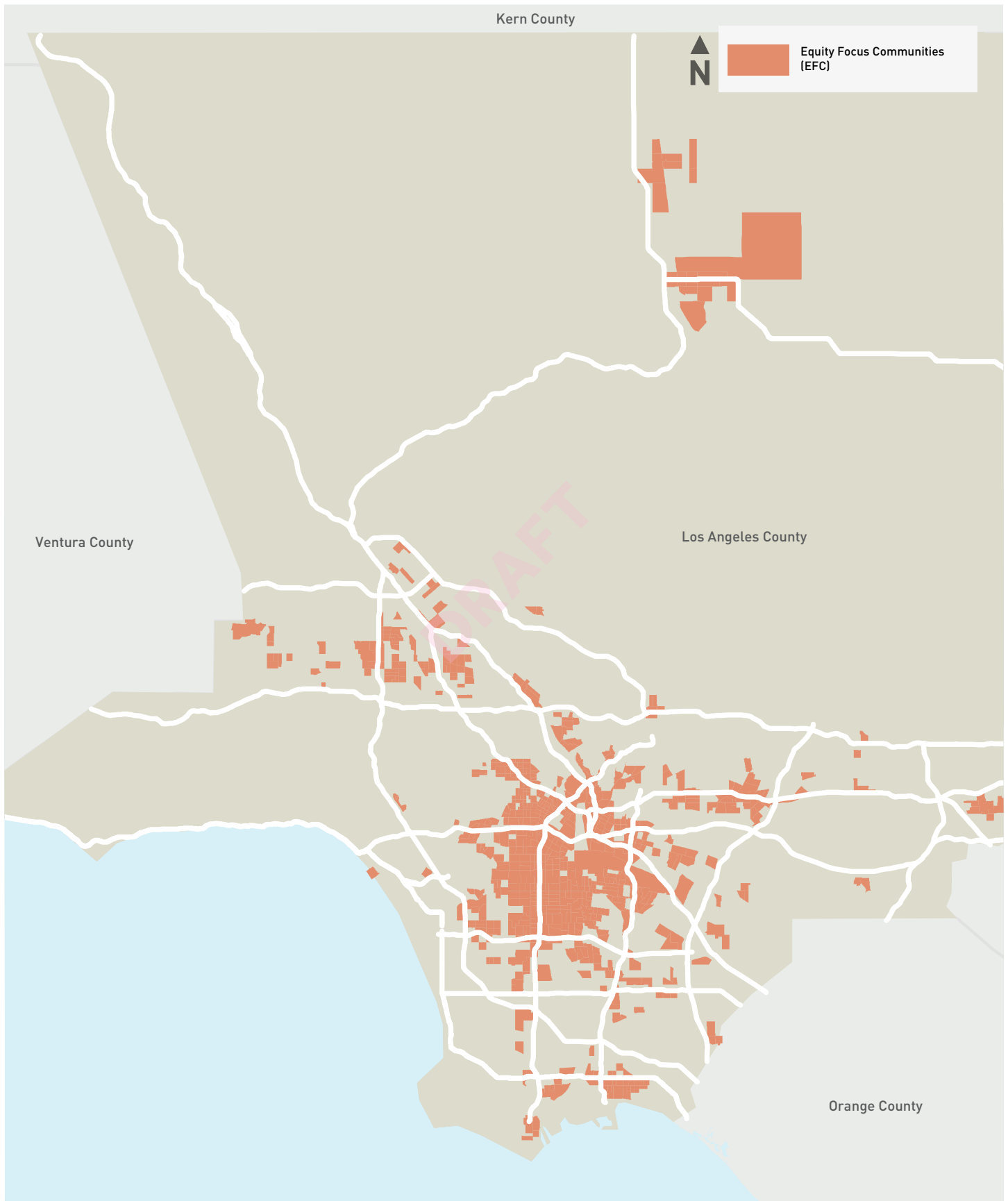
The LRTP was developed in accordance with these pillars, through robust public engagement, as well as clearly defining our goals and performance measures for tracking our effort to deliver better future access and mobility. This process and evaluation will ensure that Metro is transparent in our activities, that we continue to learn from our stakeholders, and that we use our resources effectively to benefit our communities

Equity Focus Communities

As part of the LRTP, Metro has defined “Equity Focus Communities” (EFCs). These communities represent geographic areas that have the following socioeconomic characteristics; more than 40% of households are low-income and either 80% of households are non-white or 10% have no access to a vehicle. Collectively, these areas represent about 30% of the county’s population. EFCs are communities that have experienced historic disinvestments, reduced access to opportunity and housing, and policy decisions that have resulted in environmental justice disparities. As such, these communities have higher degree of various negative outcomes and are those with the greatest need.

Figure 22

EQUITY FOCUS COMMUNITIES



Transit Oriented Communities (TOC)

In June 2018, the Metro Board of Directors adopted the TOC Policy, an ambitious effort that elevates Metro’s commitment to prioritize equity and consider land use and community development as we plan and implement the transit system.

TOCs are places (such as corridors or neighborhoods) that, by their design, allow people to drive less and access transit more. A TOC maximizes equitable access to a multi-modal transit network as a key organizing principle of land use planning and holistic community development. TOCs differ from Transit Oriented Development (TOD) in that TOD is a specific building or development project that is fundamentally shaped by proximity to transit.

TOCs promote equity and sustainable living in a diversity of community contexts by:

- > **Offering a mix of uses that support transit ridership of all income levels (e.g. housing, jobs, retail, services and recreation);**
- > **ensuring appropriate building densities, parking policies, and urban design that support accessible neighborhoods connected by multi-modal transit;**
- > **elevating vulnerable users and their safety in design; and**
- > **ensuring that transit related investments provide equitable benefits that serve local, disadvantaged and underrepresented communities.**

In addition, the TOC Policy formalizes Metro’s commitment to partner with the 88 cities and unincorporated areas in LA County and local communities to support “TOC activities”. These activities are largely community development activities and support the TOC program’s goals:

- > **Increase transportation ridership and choice**
- > **Stabilize and enhance communities surrounding transit**
- > **Engage organizations, jurisdictions and the public**
- > **Distribute transit benefits to all**
- > **Capture the value created by transit**

Example Joint Development Projects

Hollywood/Vine – Metro Red Line

- > 375 Apartments
- > 78 Affordable housing units
- > 305-Room W Hotel
- > 143 W Condominiums
- > 59,000 square feet of ground floor retail
- > Bus layover facility



1st/Boyle – Metro Gold Line

- > 78 Affordable apartments
- > 4,000 square feet of ground floor retail



One Santa Fe – Metro Red/Purple Line Rail Yard

- > 438 Apartments
- > 88 Affordable housing units
- > 79,000 square feet of retail and commercial space, including Metro Operations



Figure 23

JOINT DEVELOPMENT PROJECTS

Completed Projects (15)

- 1 Union Station (Metro HQ)
- 2 Grand Central Market
- 3 Willow
- 4 Hollywood/Highland
- 5 Del Mar
- 6 Sierra Madre Villa
- 7 Wilshire/Vermont Apts and School
- 8 Wilshire/Western
- 9 Hollywood/Vine
- 10 Hollywood/Western
- 11 Fillmore
- 12 Westlake/MacArthur Park (Phase A)
- 13 One Santa Fe
- 14 1st/Boyle
- 15 Taylor Yard Lots 1, 3, 4

Active Projects (11)*

- 1 Taylor Yard Lots 2a, 2b, 5a, 5b
- 2 North Hollywood
- 3 1st/Soto
- 4 1st/Lorena
- 5 Cesar Chavez/Soto
- 6 Cesar Chavez/Fickett
- 7 Division 6
- 8 Expo/Crenshaw
- 9 Mariachi Plaza
- 10 Vermont/Santa Monica
- 11 Little Tokyo/Arts District

* Sites Metro currently has in construction; is in negotiations with a developer; is conducting community engagement to inform development guidelines; or has an active Request for Proposals (RFP) out.

Future Sites (5)**

- 1 Union Station
- 2 Sepulveda Park & Ride
- 3 El Monte
- 4 Wilshire/Crenshaw
- 5 Wilshire/La Brea

** Sites Metro expects to release a RFP for in the next one to three years.



Priority Area 4: Access to Opportunity

Strategy 4.1: Advance equity through institutional transformation to eliminate disparities

Transportation can play an important role in economic development, increased opportunity and upward mobility. Metro seeks to ensure our programs, policies and investments expand opportunities for the communities in most need.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.1a. Implement Equity Platform	●				●		●
4.1b. Establish agency-wide definition of equity	●				●		
4.1c. Create and implement an equity assessment tool	●						●
4.1d. Prioritize investment to support those with the greatest mobility needs	●						●
4.1e. Prioritize improved access to opportunities for Equity Focus Communities	●			●			●
4.1f. Develop and advance a Racial and Socio-Economic Equity Action Plan		●			●		

Strategy 4.2: Build affordable housing near transit

Metro is working with our partners to address LA County's housing and affordability crisis through several initiatives aimed at developing more and affordable housing near transit.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.2a. Implement Transit Oriented Communities (TOC) Policy	●						●
4.2b. Implement Joint Development Program	●						●
4.2c. Partner to build affordable transit-oriented housing	●						●

Strategy 4.3: Reduce household expenses on transportation

After housing, transportation is the second largest cost for many LA County households. Metro has fare assistance programs for targeted populations, including low-income households, youth and students.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.3a. Expand Low-Income Fare is Easy (LIFE) Program	●				●		
4.3b. Continue Youth on the Move Program	●				●		
4.3c. Continue U-Pass Program	●				●		
4.3d. Partner with transportation network companies (TNCs) to reduce the cost of accessing stations	●						●
4.3e. Explore free fares for students and the general public			●		●		●

Defining Equity

As part of our commitment to the Equity Platform Framework, Metro has developed a draft definition of equity:

Equity is both an outcome and a process to address racial, socio-economic and gender disparities, to ensure fair and just access – with respect to where you begin and your capacity to improve from that starting point – to opportunities, including jobs, housing, education, mobility options and healthier communities. It is achieved when one's outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic or social identities. It requires community informed and needs-based provision, implementation and impact of services, programs and policies that reduce and ultimately prevent disparities.



Image to come

Reduced Transit Fares

The Low-Income Fare is Easy (LIFE) program provides transportation assistance to low-income individuals in LA County. LIFE offers fare subsidies that may be applied toward the purchase of fares on Metro, any LIFE-participating transit agencies or free regional ride options. Reduced fare TAP cards are also eligible for additional savings with LIFE. Once enrolled, LIFE benefits can be loaded onto TAP cards at any participating vendor. Metro is considering free transit for students, and if additional revenue is raised through congestion pricing, Metro could subsidize transit for all riders.



Image to come

Strategy 4.4: Invest in the regional workforce

Metro is investing in the regional workforce through training, education and employment opportunities. Metro has several existing programs in this area and plans to open its transportation school in 2022.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.4a. Expand training programs, career academies, apprenticeship programs and employment opportunities in LA County	●				●		●
4.4b. Implement Project Labor Agreement and Construction Careers Policy	●				●		
4.4c. Increase resources needed to train and place people in hard-to-fill positions (WIN-LA)	●				●		
4.4d. Develop logistics workforce initiatives and pilot programs		●					●

Strategy 4.5: Expand opportunities for small businesses

Metro is committed to supporting small businesses and local economies through our contracting procedures, our projects in local communities and our direct investments.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.5a. Ensure local transportation investments support local business district programs	●						●
4.5b. Support small businesses throughout construction (Business Interruption Fund and Business Solution Center)	●						●
4.5c. Expand Metro DBE, SBE and DVBE programs through training, partnering and mentorship programs	●				●		●

Strategy 4.6: Maximize our local investments

State and federal funding sources allow Metro to maximize our local resources. Metro continues to explore all funding opportunities and innovative project delivery mechanisms to increase the impact of our investments.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.6a. Support local jurisdictions to submit competitive grant applications	●				●		●
4.6b. Deliver projects through alternative delivery models, including P3, as appropriate	●				●		●
4.6c. Leverage local transportation dollars to secure state and federal grants	●			●			●

E3 Training Programs

Metro is investing in the next generation of transportation workers through the E3 Initiative, to expose, educate, and employ the next generation of LA County. The initiative's mission is to prepare the Los Angeles County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable industry skills. The programs include Metro's Transportation School, Teacher Externship Program, Entry Level Trainee Program, Transportation Career Academy Program, Los Angeles Trade and Technical College, Metro Joint Apprenticeship Committee (JAC), and Metro Bridge Academy.

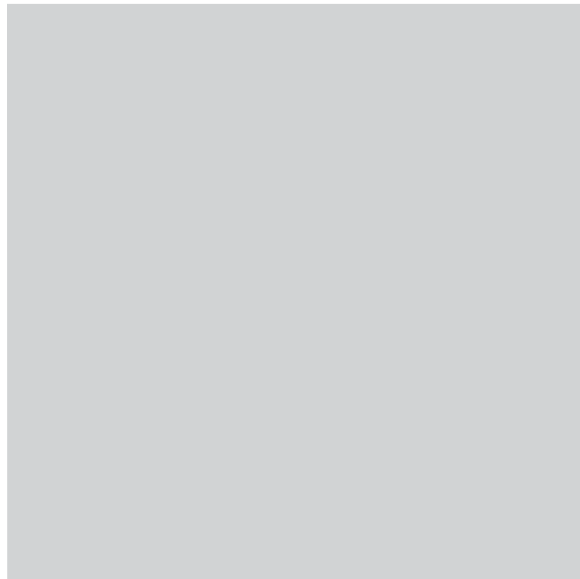


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Supporting Local Business

Metro's Business Interruption Fund (BIF) provides financial assistance to small businesses impacted by rail construction and located along the following corridors: Crenshaw/LAX Transit Project; the Little Tokyo and 2nd/Broadway areas along the Regional Connector Transit Project; and the Purple Line Extension.

Metro's Pilot Business Solution Center (BSC) provides hands-on business assistance and support services to small businesses along the Crenshaw/LAX Transit Project corridor during the years of construction.



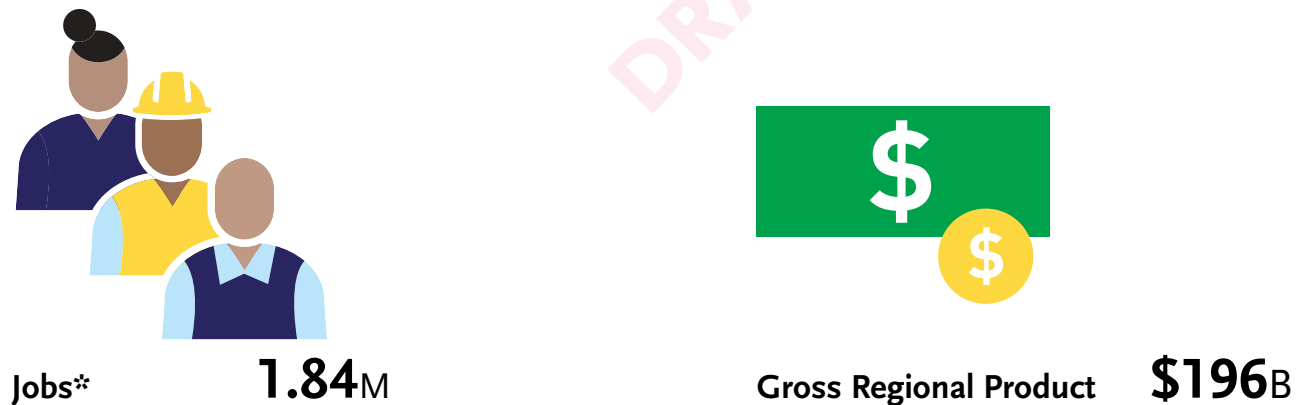
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Our plan creates jobs and boosts LA's economic health.

The 2020 LRTP will benefit the local and regional economy. Direct and indirect economic benefits come from the expenditures on transportation projects. Furthermore, transportation system enhancements generate travel time savings, and increase economic output and competitiveness. Expenditures and improvements included in only the capital plan of the LRTP, not including the additional policies and programs, are anticipated to increase Gross Regional Product by \$196 billion and create 1.84 million jobs over the 30-year period.

Figure 24

Net Jobs Created and Increase in Gross Regional Product from Capital Investment



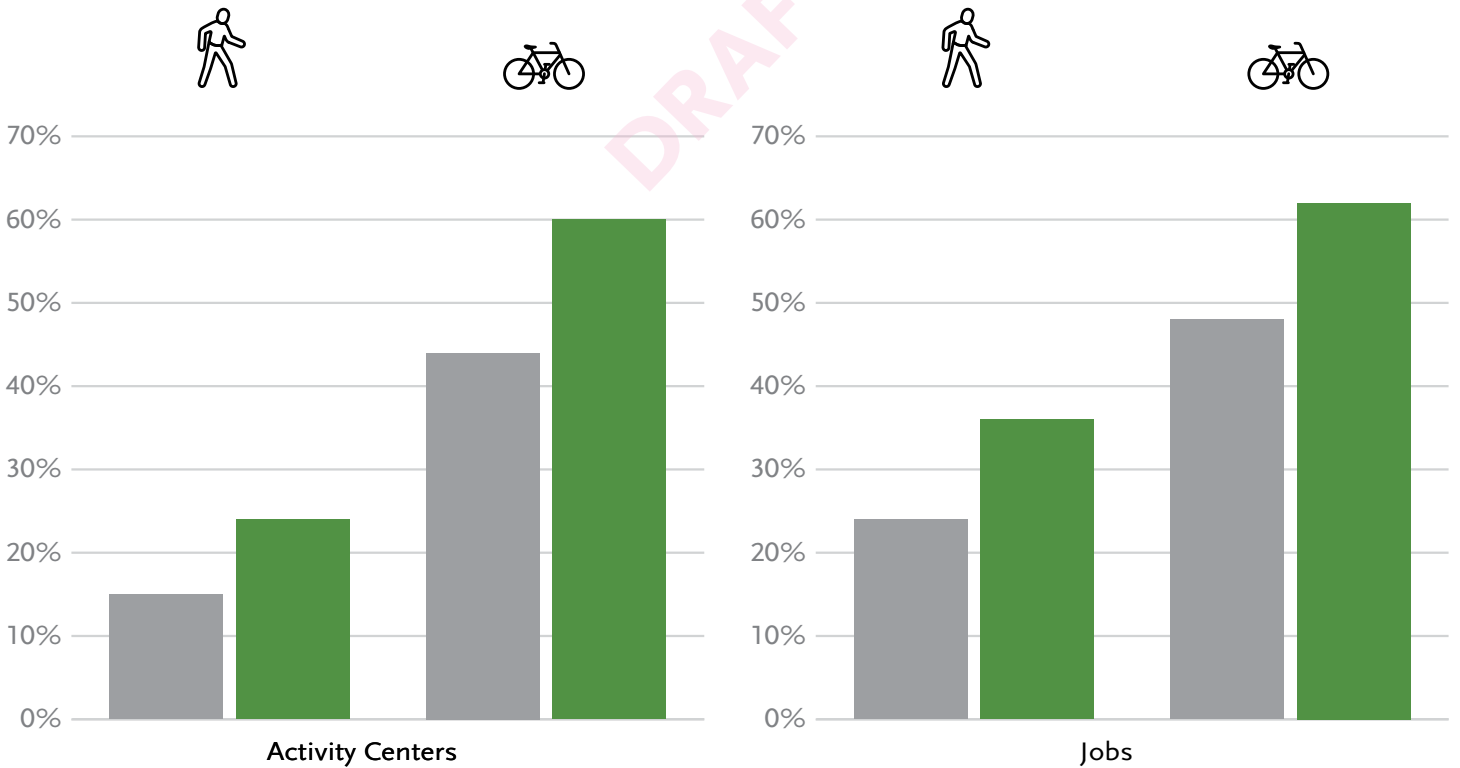
*A single year of employment for one individual

Transit should connect people to where they want and need to go. The 2020 LRTP will increase the number of jobs and activity centers within a 10-minute walk or roll of fixed guideway transit. For example, it will bring about a 50% increase in jobs accessible and 60% of activity centers within a 10-minute walk of a transit station.



Figure 25

Percent of Activity Centers and Jobs within a 10-minute Walk or Roll of Fixed Guideway Transit



We're funding a transportation revolution, \$400 billion strong.

The 2020 LRTP provides the funding for the largest public works projects in North America, identifying \$400 billion to be spent on transportation over the 30-year period. The LRTP financial forecast includes revenue from local sales tax, state sources, federal programs and other sources. Approximately 74% of funding is controlled by Metro, either from federal and state programs or through locally generated revenues. LA County has passed four separate ½-cent transportation sales taxes over the past 40 years: Proposition A (1980), Proposition C (1990), Measure R (2008) and Measure M (2016).

Figure 3 highlights the estimated funding by use. This includes all funding for capital projects, operations and maintenance countywide, including funding sources that Metro does not control. Almost half of the expenditures are capital investments for transit, highway or multi-modal projects, including the subregional funding programs and Local Return allocated to cities. Investment in active transportation makes up about \$6.9 billion of the 30-year total, included primarily under the roadways program. Transit operations, both rail and bus, comprise more than one-quarter of the estimated future expenditures.

The LRTP is a financially constrained plan, which means our committed investments are programmed to match our anticipated funding. The forecast is based on estimated sales tax growth and existing project cost estimates. Future changes may present challenges that must be balanced within a constrained plan and updated or amended as appropriate. The financial model anticipates growth over the 30-year forecast and some economic disruptions; however, the LRTP is a living document which can be regularly updated as needed.

Almost half of all the funding is derived from LA County's four transportation sales tax measures. State programs, bolstered by the recent passage of SB 1 (the Road Repair & Accountability Act of 2017), make up about 20% of the projected funding. Local funding sources, including transit fare revenue, contribute 17% and federal sources, once a large share of local transportation funding, is only 8% of the future funding.

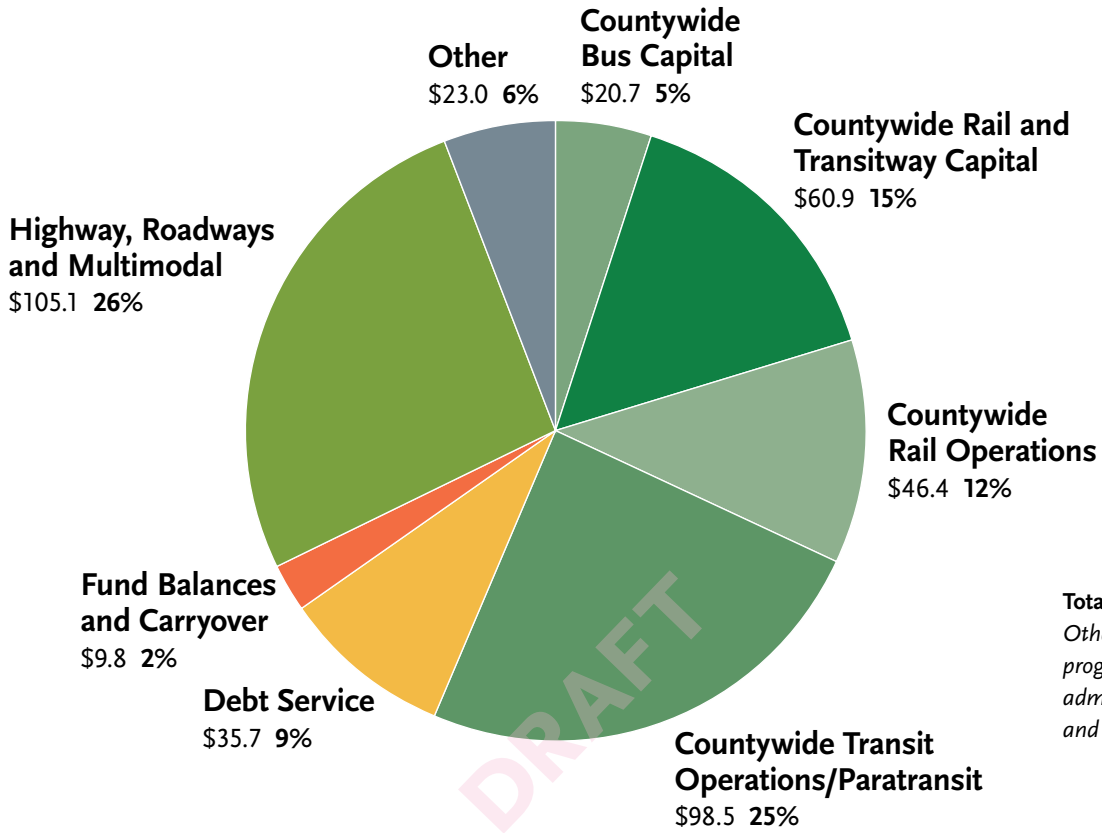
While the expanded programs, partnerships and policies of the 2020 LRTP represent additional expenditures, these will be balanced by future revenues anticipated through future policies, such as ExpressLanes and congestion pricing.

Figure 26

Countywide Uses and Sources of Transportation Funding (FY2020–FY2050)

Total Uses

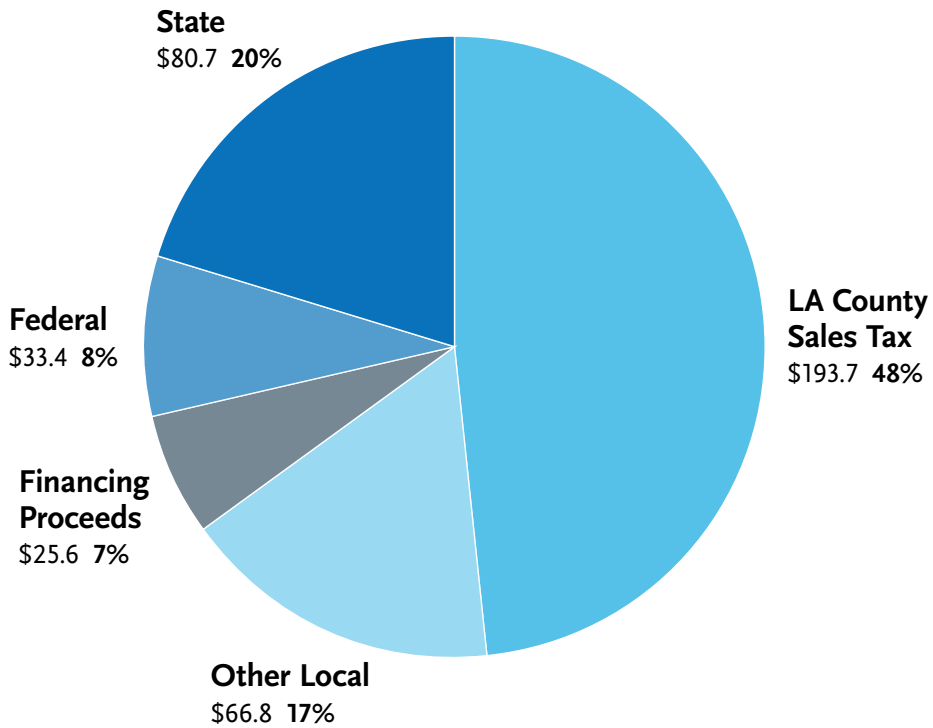
\$ in billions



Total: \$400 billion
 Other: includes safety net program, agency-wide administration and capital, and regulatory oversight.

Total Sources

\$ in billions



Supporting Our Partners

Metro, as the Regional Transportation Planning Agency, is the recipient agency for many state and federal funding programs that pass through to local jurisdictions. Furthermore, Metro administers the revenue from the four LA County transportation sales taxes, each providing substantial transportation funding for local jurisdictions.

Local Return

Local jurisdictions receive transportation funding from Metro through the Local Return program. Over the 30-year period, this amount is anticipated to be \$38 billion. The Local Return program is funded by each of the four sales taxes authorized by Metro, including 25% of Proposition A, 20% of Proposition C revenue, 15% of Measure R and 17% of Measure M (increasing to 20% in 2039).

The largest percentage of local return funding goes to support for local public transit and dial-a-ride services. Prop A required all funding be used for public transit; Prop C expanded the eligible uses of funding, but funded projects must demonstrate a public transit benefit or be performed on streets heavily used by public transit. Measures R and M expanded eligibility to most transportation purposes, and therefore, a large portion of local return funds are dedicated to active transportation projects, street resurfacing or other roadway improvements.

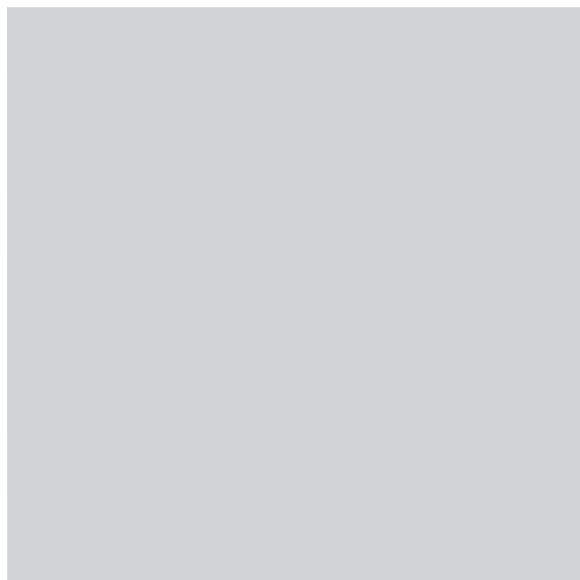


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Measure M Multi-year Subregional Programs

Measure M created 36 Multi-year Subregional Programs (MSP) that program \$13.5 billion to the nine subregions in LA County. These MSPs were created with input from the subregions and highlight the transportation priorities of various communities throughout LA County. Some subregions also dedicated resources to specific highway and transit projects included in the expenditure plan. The majority of the future MSP funding is allocated to roadway projects (56%) and a substantial amount is allocated to active transportation (23%) and transit (15%).



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Figure 27

Local Return Funding

\$ in billions

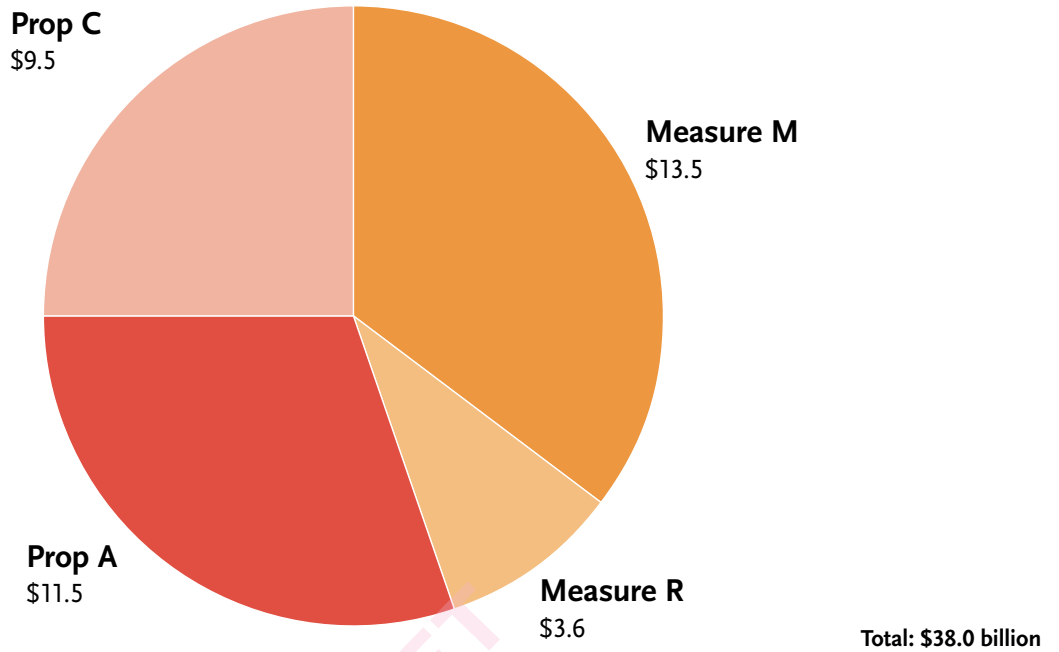
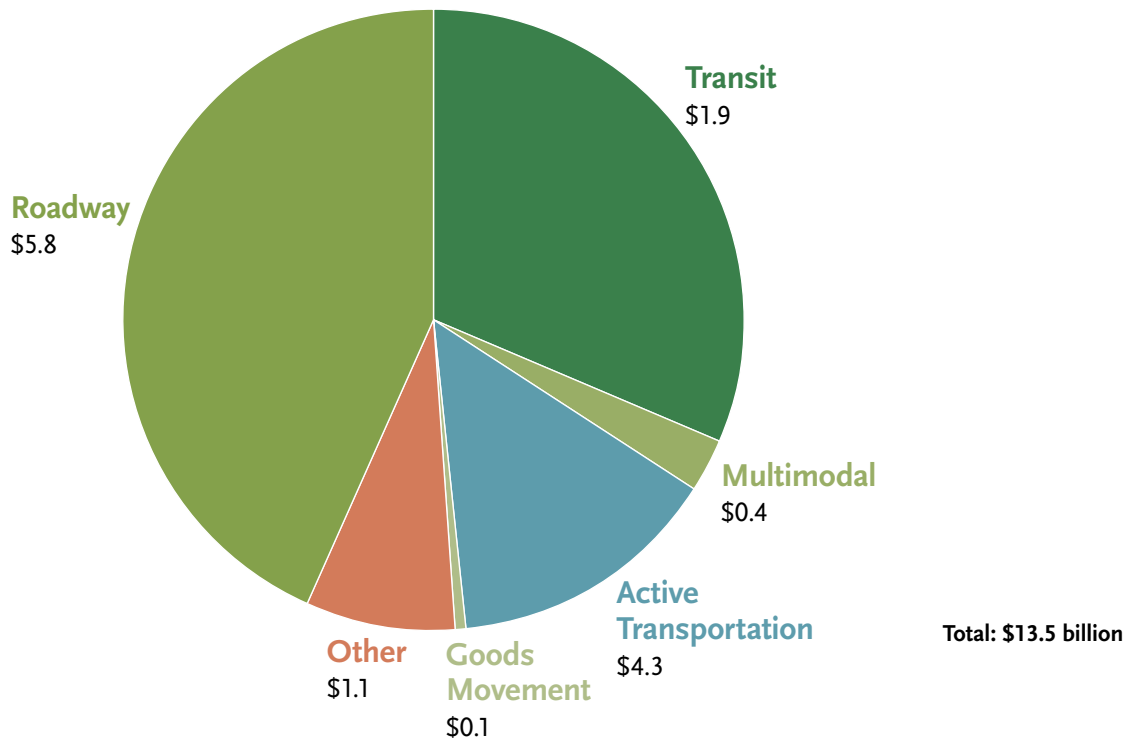


Figure 28

Multi-year Subregional Program Funding

\$ in billions



Operations & Maintenance

A functioning, high-quality transportation system is essential for the efficiency of the system and the safety of users. The cost to operate and maintain LA County's transportation system is substantial, and we must continue to invest the resources to operate, maintain and rehabilitate the transportation system, including the expanding transit system and the vast network of roadways, and bicycle and pedestrian facilities.

The 30-year estimate for operations and maintenance included in the 2020 LRTP is over one-half of the 30-year investment estimate, with an estimated \$169 billion in transit operations and state of good repair (SGR), and \$32 billion in freeway operations and SGR.

Transit Operations and State of Good Repair (SGR)

LA County has almost 50 transit agencies that own more than 7,000 revenue vehicles, plus additional service vehicles, equipment and facilities. Metro bus and rail operations will require an investment of almost \$97 billion over the 30-year period, and an additional \$24 billion to rehabilitate and repair the assets. Municipal and local agency operations will require an additional \$33 billion.

Metrolink

The Metrolink system provides high-speed, long-distance regional commuter rail service over 538 route-miles, carrying an average of 38,000 weekday passenger trips. Metrolink is governed by the Southern California Regional Rail Authority (SCRRA), a joint powers authority representing the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. LA County, through Metro, provides an operating subsidy for Metrolink. Over the 30-year period, the 2020 LRTP financial plan assumes Metrolink funding amounts totaling over \$800 million in state of good repair, \$6.7 billion in operations and \$1.3 billion in capital expansion.

Access Services

Metro provides funding for countywide paratransit service for the elderly and people with disabilities, operated by Access Services. A flexible service paratransit is a federally mandated right through the Americans with Disabilities Act (ADA) for persons with disabilities who cannot access fixed-route buses and trains. Paratransit, typically provided in vans or mini-buses, is on-demand and does not follow fixed routes or schedules. A total of \$8.5 billion will be needed to operate paratransit over the 30-year period.

Roadway Operations

Highway and arterial operations and maintenance include activities to keep roadways properly maintained, such as roadway resurfacing and bridge rehabilitation, as well as solutions to improve the operational efficiency of the system. Examples of these strategies include traveler information, intelligent transportation systems (ITS) and incident management solutions.

Transportation System Management (TSM) strategies are tools that use traffic engineering and operational measures to maximize capacity and reduce traffic delays on streets and highways. Intelligent Transportation Systems (ITS) strategies, such as the Regional Integration of ITS (RIITS) program, are low-cost and dramatically improve traffic flow, movement of vehicles and goods, system reliability, air quality, and safety

Freeway Service Patrol (FSP) is a congestion mitigation program managed in partnership with Metro, California Highway Patrol (CHP) and Caltrans on all major freeways in LA County and is the largest of its kind in the nation, performing approximately 25,000 assists each month. The program utilizes a fleet of patrolling tow and service trucks designed to quickly remove disabled vehicles.

Roadway State of Good Repair

The State Highway Operations and Protection Program (SHOPP) is a program to rehabilitate California's highway system. The program identifies and approves funding for projects consistent with California's Transportation Asset Management Plan. Over a 30-year period, the estimated funding available in LA County through the SHOPP program is close to \$22 billion. Local roadway rehabilitation is funded in large part by the Local Return program, described above.

Figure 29

Transit Operations and SGR

\$ in billions

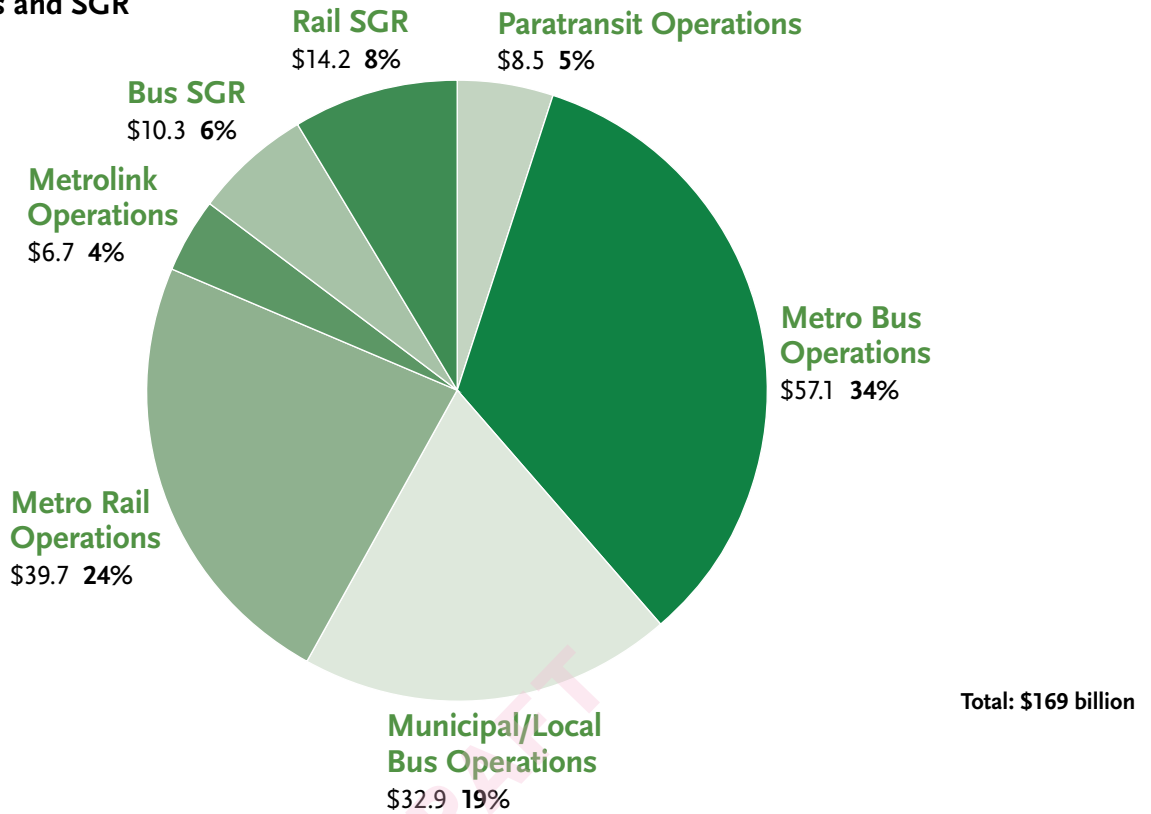
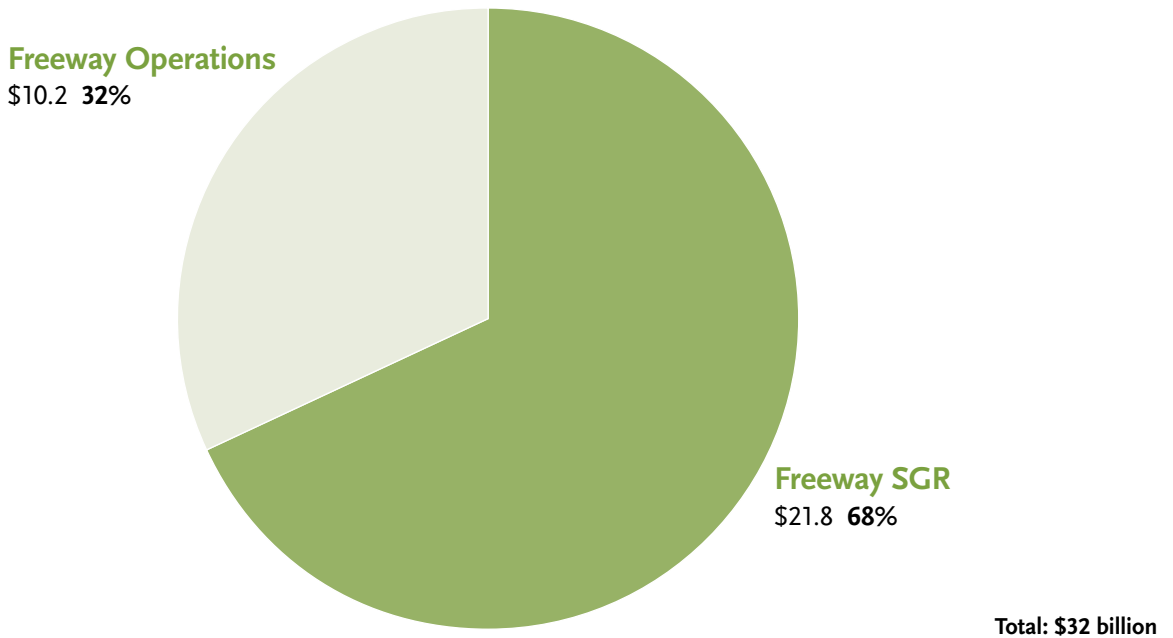


Figure 30

Freeway Operations and SGR

\$ in billions



We're also building bold new programs and policies.

The preceding investment plan is the backbone of the LRTP, highlighting LA County's commitment to expanding transit, maintaining the transportation system, and facilitating the movement of people and goods. However, this investment alone will not address the challenges facing our region.

LA County must support the capital program by advancing additional policies and programs to catalyze the investment and bring about the transportation system benefits that are needed for the region, without creating additional financial burdens. To this end, Metro must provide more and better transportation options, and incentivize transit and active travel modes.

Provide More and Better Transportation Options

Better transportation options mean providing multiple viable transportation choices that meet the needs of travelers with different requirements, desires and means. Solutions include:

- > **Complete the ExpressLanes Strategic Network.** Completing the Tier 1, Tier 2 and Tier 3 ExpressLanes network (see page 32) would add high-occupancy toll lanes to the majority of LA County freeways. ExpressLanes free up capacity on general purpose lanes, generate revenues and offer a faster, more reliable trip for those who carpool or who are willing to pay the toll.
- > **Improve bus speeds.** Improving transit travel times is crucial to making transit competitive with driving private automobiles. To improve speeds, Metro is implementing transit priority initiatives and bus speed improvement projects, such as all-door boarding, making fare payment easier, bus stop optimization, signal synchronization and transit signal priority. However, to truly make transit competitive and realize the goals in Vision 2028, the NextGen Bus Plan must implement a network of bus rapid transit routes and bus-only lanes. This will require a commitment and strong partnership with local cities to dedicate roadway space to transit. However, to truly make transit competitive and realize the goals in Vision 2028 the NextGen Bus Plan, LA County must implement a network of bus rapid transit routes and bus-only lanes.

Incentivize Transit and Active Travel Modes

Incentivizing transit and active transportation requires policies that make these modes more attractive compared to driving a private automobile. Solutions include:

> **Explore implementation of pilot traffic reduction program.**

As part of a pilot program to improve mobility in a congested area of LA County, Metro is exploring congestion pricing strategies coupled with a package of transportation improvements with the goals of providing more travel options, improving equity, and increasing environmental benefits. Metro will work with our partners to implement a pricing program that meets our mobility goals while balancing equity and economic concerns.

> **Provide more affordable transit.** Decreasing transit fares can potentially boost transit ridership. In order to meet our transit ridership goals, Metro must expand our reduced fare programs and make fare payment easier. Metro will assess current and new pricing models to develop a simplified, fiscally sustainable, system-wide approach to pricing that addresses affordability concerns for low-income and disadvantaged populations, while also providing better mobility and security for all users across Metro's portfolio of transportation services.

> **Expand first/last mile connectivity.** Metro will work with local and regional partners to improve access to transit by removing barriers to transit stations or destinations. We will collaborate with our partner agencies to dramatically increase the regional network of active transportation facilities, including shared-use paths and on-street bikeways, and develop a funding strategy to get them built.

> **Support transit-oriented communities.** We will implement a comprehensive approach to facilitating development on Metro-owned land around high-quality transit stations and will quantify the impact of these developments within a one to one-and-a-half-mile radius in the transit corridor. Metro will develop programs and processes, new policies and special projects that reflect Metro's commitment to realizing holistic, inclusive community development and land use planning along existing and proposed transit corridors. This effort disseminates a vast array of TOC initiatives along with lessons learned for Metro, its external partners and peer transit agencies.

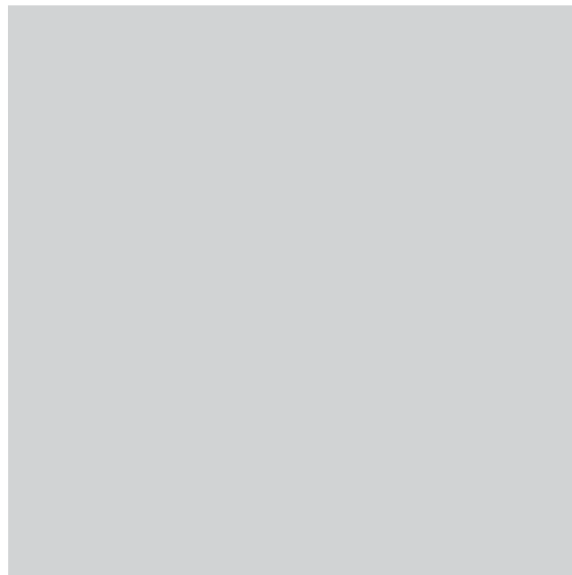


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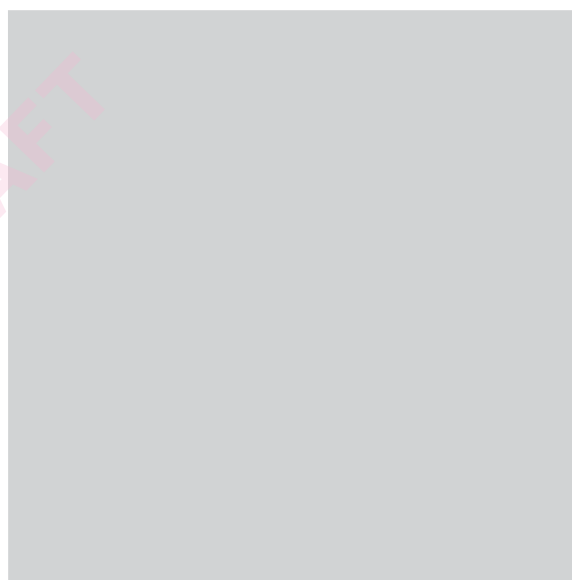


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Plans for today, and the decades to come.

The 2020 LRTP is a financially constrained plan that examines how Metro’s future transportation investments can be leveraged to achieve the maximum mobility benefits for all of LA County. It is the culmination of two years of sustained community engagement to establish stakeholder priorities, as well as technical analysis to determine the anticipated benefits of the LRTP over the next 30 years.

Building transportation infrastructure creates economic benefits. The jobs, spending and increased access that these investments represent are needed now, more than ever. Our challenge is to proceed systematically, prioritizing strategies within this plan. The prioritization of Metro’s infrastructure investments is the next step, which will be firmly rooted in equity and sustainability.

Metro’s forthcoming Short Range Transportation Plan (SRTP) is a 10-year action plan for the investments, policies, and system improvements needed to advance the 2020 LRTP vision. The SRTP will address regional economic recovery, while improving regional mobility, air quality, economic resilience and access to opportunity. It will also investigate the potential for a strategic project list and focus on achieving these outcomes through the transparent development of a fiscally responsible action plan that recognizes the near-term system improvements necessary to ensure maximum return on our transportation investments.

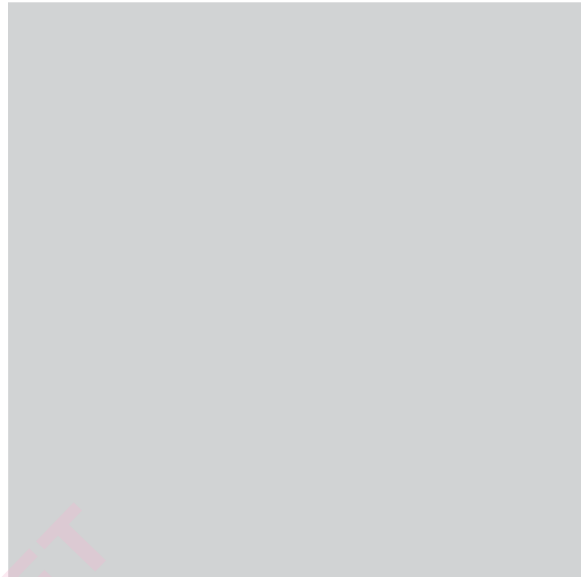


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✉ Attn: Long Range Planning
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✉ metroplan@metro.net

🌐 ournext.la

DRAFT

Draft 2020 Long Range Transportation Plan for Public Comment



Planning & Programming Committee

May 20, 2020

L RTP is Metro's Part of SCAG RTP/SCS

L RTP Meets Conformity/Funding Requirements

- > Financially Constrained, Technical Analysis for SCAG RTP/SCS
- > Major Project Inclusion Required for State & Federal Funding Eligibility

Time to Adopt

- > L RTP Developed in Alignment with SCAG's Schedule
- > SCAG Adopted 2020 RTP/SCS May 7th (Transportation portion)

Document Amended As Needed

- > SCAG RTP/SCS & L RTP: Both Living Documents
 - Update/Amend to Address Project & Plan Changes

Everything we do supports our mission.

We're using a robust mix of *projects, programs, policies and plans.*

 *Long Range Transportation Plan*



We're passionate about creating *sustainable and equitable* solutions.

 *Moving Beyond Sustainability Plan*  *Equity Platform*



We take our *responsibilities* seriously.

 *Accountability*  *Collaboration*  *Innovation*  *Safety*



We're guided by our *strategic plan.*

 *Vision 2028 Strategic Plan*

We have a plan for a better LA.

Our mission is improving mobility to enhance the quality of life for you and all who live, work and play in LA County. We're creating:

Better Transit

Providing more transportation options and improving service

Less Congestion

Managing the transportation system to ensure people spend less time in traffic

Complete Streets

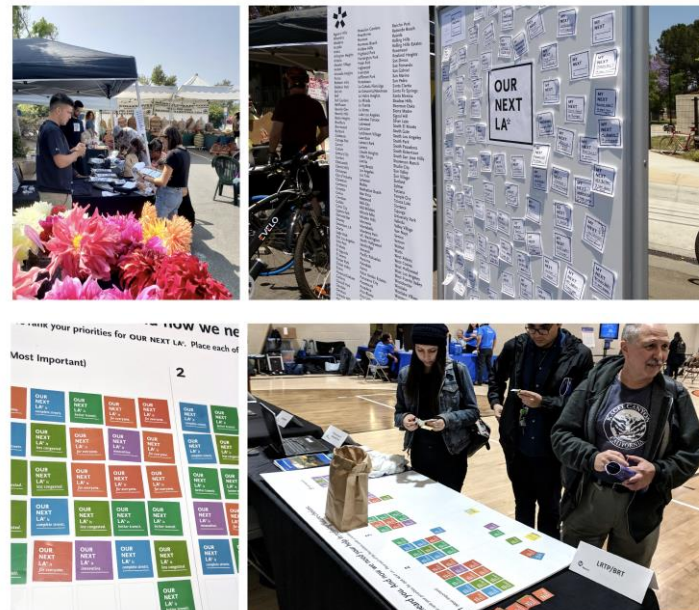
Making streets and sidewalks safe and convenient for all

Access to Opportunity

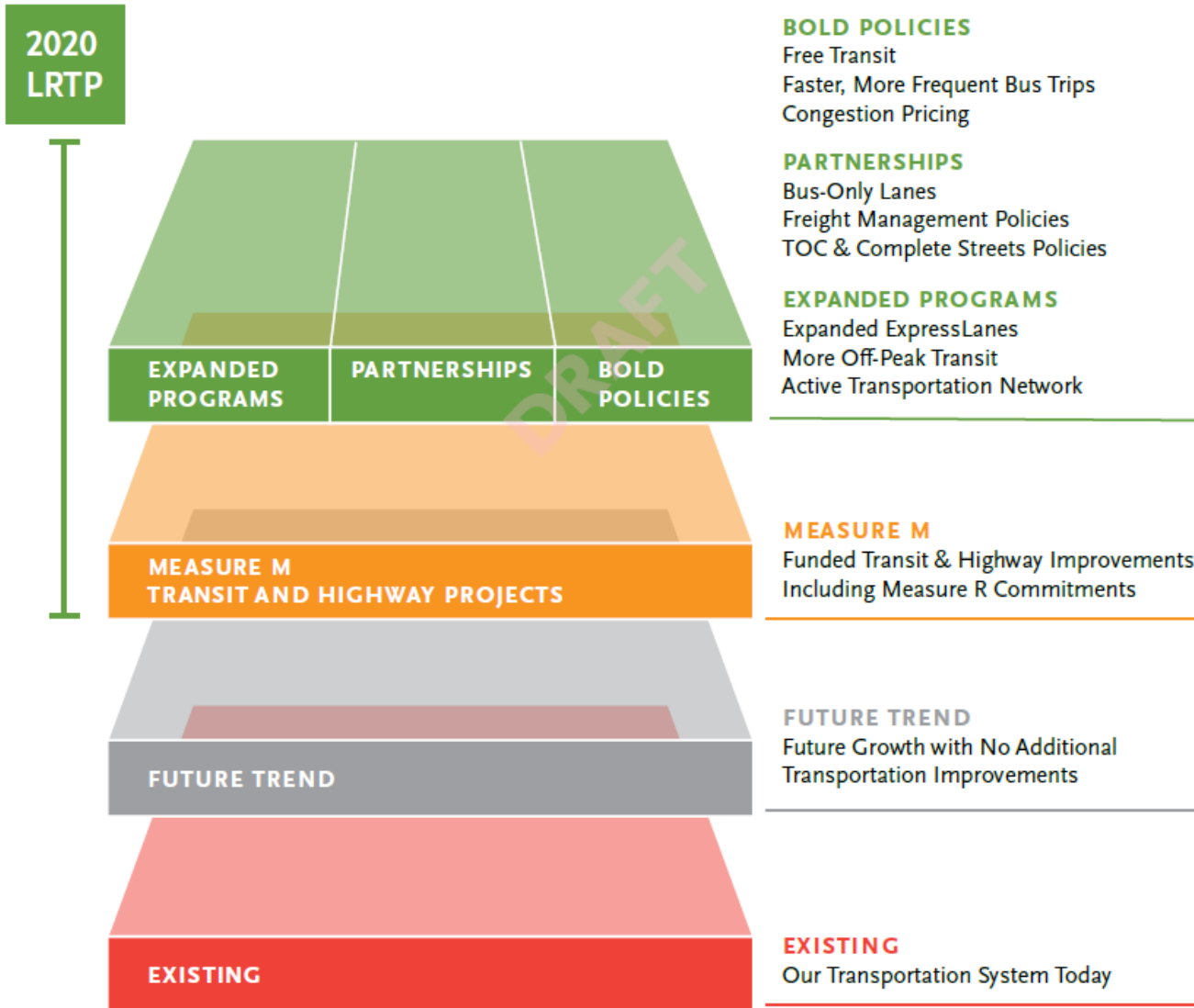
Investing in communities to create jobs and housing near transit

Public Engagement:

- > **77** community events
- > **28** public meetings
- > **20,000** survey responses
- > **50,000** completed priority rankings



Elements of the 2020 LRTP

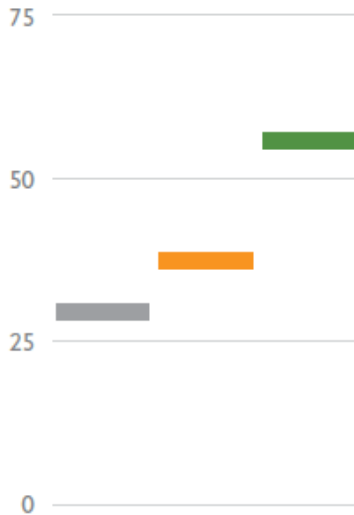


Benefits of the 2020 LRTP



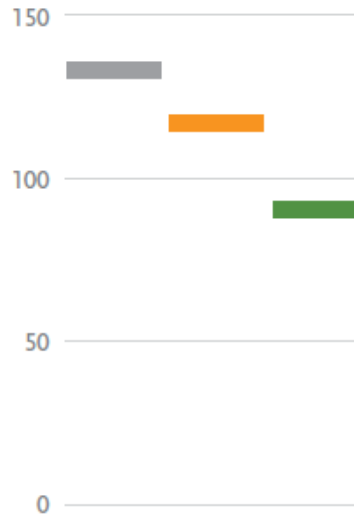
Transit Trips
annual trips per capita

↑
81%



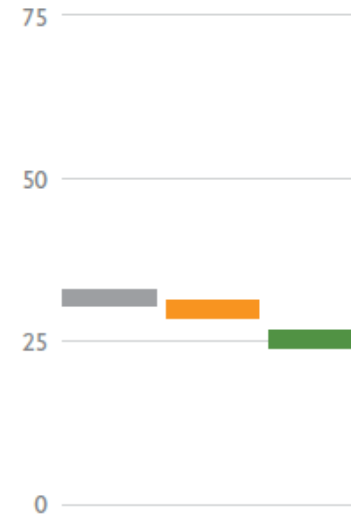
Vehicle Hours of Delay
annual hours per capita

↓
31%



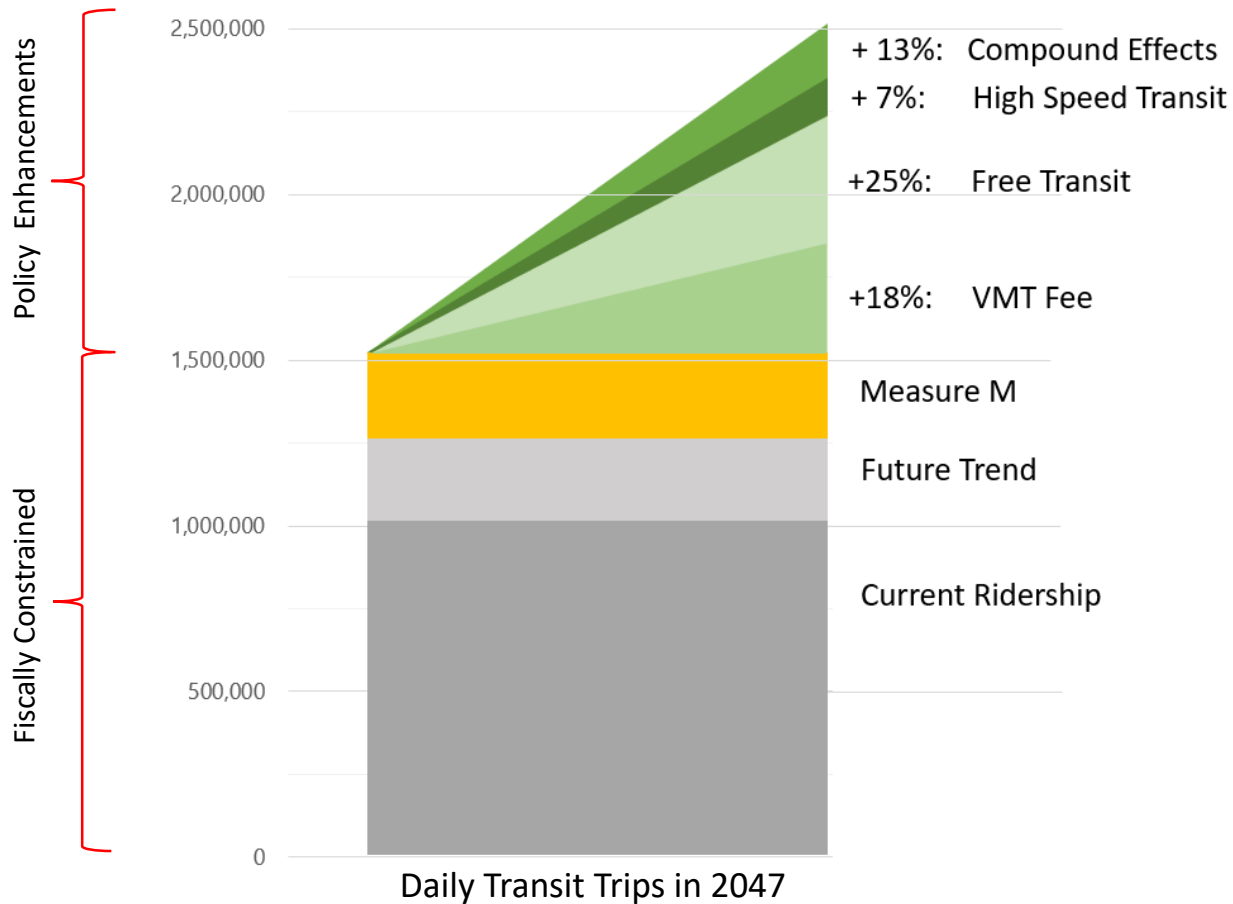
Greenhouse Gas Emissions
annual million metric tons

↓
19%



2020 LRTP: Expanding Beyond Measure M

Increasing Transit Ridership

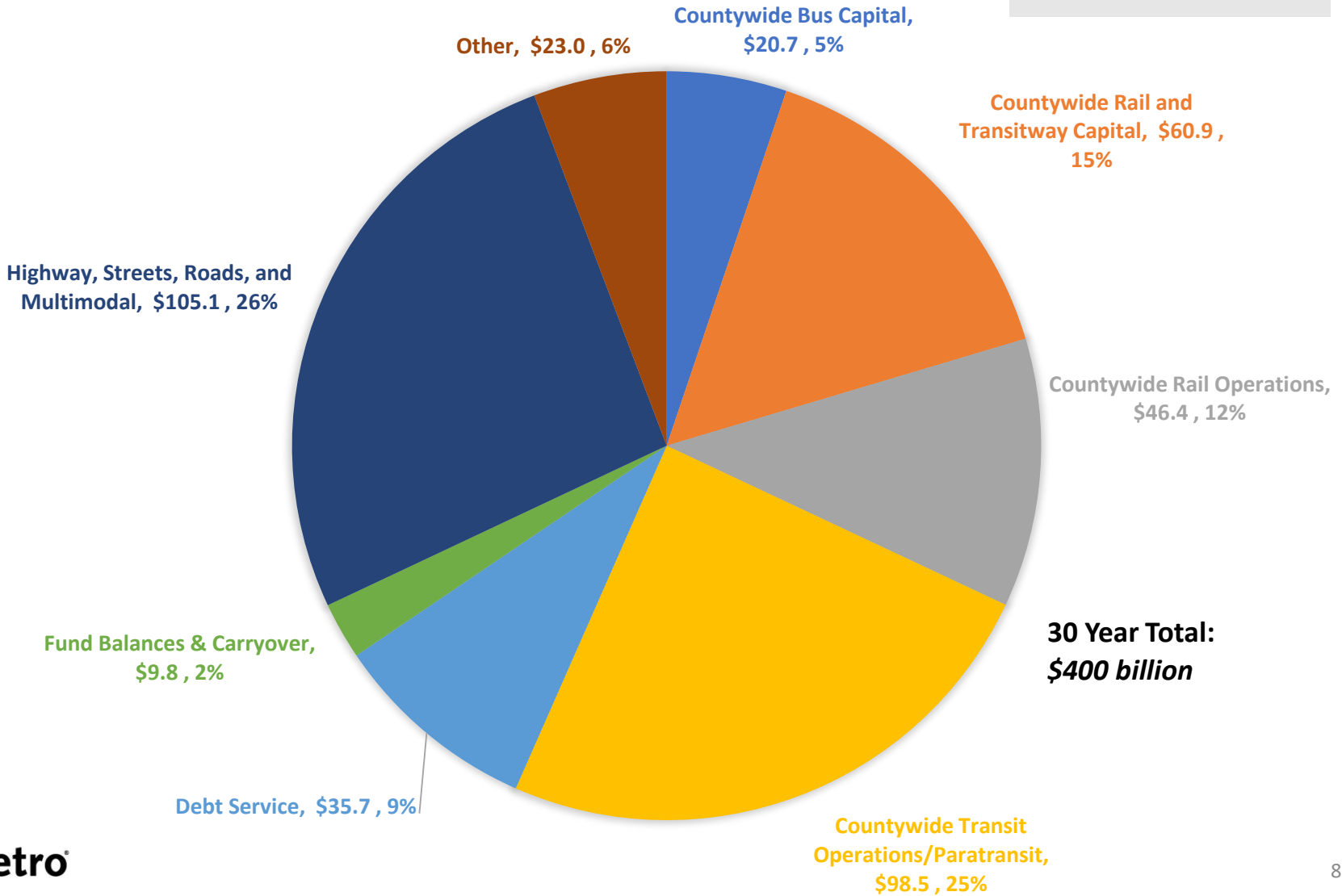


- Approximately 1% improvement in daily transit trips for every 1¢ charged per mile.
- A fully subsidized transit trip for all riders may increase ridership up to 25%.

LA County Investments

Countywide Investment, FY2021 – FY 2050, in \$billions

Metro controls almost $\frac{3}{4}$ of all LA County transportation funding



**30 Year Total:
\$400 billion**



Other: includes safety net program, agency-wide admin and capital, and regulatory oversight.

Beyond the Capital Program

The 2020 LRTP will:

- > Provide better options
 - Bus speed improvements
 - Expanded ExpressLanes network
 - First/Last Mile Connections
 - Transit Oriented Communities
- > Incentivize transit and active modes
 - Congestion pricing/ VMT fee
 - More affordable transit fares

Next Steps

- > 2020 LRTP Adoption Schedule
 - Public Comment (5/29-7/13/2020)
 - Request Board Adoption (Summer)
- > Short-Range Transportation Plan



Board Report

File #: 2020-0111, File Type: Plan

Agenda Number: 8.

PLANNING AND PROGRAMMING COMMITTEE MAY 20, 2020

SUBJECT: FIRST/LAST MILE PLAN FOR PURPLE LINE EXTENSION SECTIONS 2 & 3

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. ADOPTING First/Last Mile Plan for Purple Line Extension Sections 2 & 3; and
- B. DIRECTING staff to return to the Board with implementation recommendations following completion of the First/Last Mile Guidelines.

ISSUE

Metro has completed work on a First/Last Mile (FLM) Plan for Purple Line Extension Sections 2 & 3 (Plan). The Plan presents FLM improvements around four future Purple Line (D Line) stations: Wilshire/Rodeo, Century City/Constellation, Westwood/UCLA, and Westwood/VA Hospital.

Adoption of the Plan by the Metro Board better positions FLM improvements for funding and implementation including pursuit of potential grant funding. Next steps for implementing the Plan will be presented to the Board upon adoption of the FLM Guidelines anticipated in summer 2020 so that action for Purple Line stations can be considered consistent with the approach for all projects.

BACKGROUND

FLM planning is part of Metro efforts to improve safety and access to transit. In 2016, Board Motion 14.1 directed staff to integrate planning and delivery of FLM improvements for new transit projects, beginning with PLE Section 2. Subsequent staff reporting to the Board (June 2016) established that for PLE Sections 2 and 3, FLM planning work would proceed in parallel to work on the rail project. Additionally, Board Motion 14.2 allowed city-funded FLM projects to count towards the required 3% local contribution for rail projects.

Metro prepared the Plan which includes proposed FLM projects developed through community engagement and technical analysis of station areas. Projects are categorized as pedestrian improvements and wheel improvements (e.g. for bicycles and scooters). The Plan's

recommendations have been coordinated with local jurisdictions - the City of Beverly Hills, the City of Los Angeles, the County of Los Angeles, as well as with large institutional stakeholders including the University of California at Los Angeles (UCLA) and the West Los Angeles Veterans Affairs Hospital- to complement street and land use plans and to facilitate future implementation efforts.

The Plan includes the following core documents:

- Pathways Maps
- Project List
- Rough-Order-of-Magnitude (ROM) Cost Estimation
- Project Scoring and Prioritization

They are accompanied by supporting documents that detail the planning process. The full Plan is available in Attachment B.

DISCUSSION

Plan Summary and Key Findings

The Plan presents project ideas to improve safety, connectivity, and station accessibility for pedestrians and people who use bicycles (or other modes of non-motorized wheeled transportation). Broadly, improvements include, but are not limited to, new or improved sidewalks and crosswalks, bus stop improvements, pedestrian lighting, landscaping and shade, and various bicycle facilities.

At the Wilshire/Rodeo station, the arterials of Beverly Dr. and Wilshire Blvd. are heavily trafficked and would benefit from the high-quality pedestrian features already in place in much of the station area, along with enhancements and additions recommended in the Plan. Bicycle connections are key to station access and the plan includes bicycle improvements that align with the draft Beverly Hills Complete Streets Plan.

At Century City/Constellation station, Olympic Blvd., Santa Monica Blvd., and Avenue of the Stars are key spines for vehicular access. The Plan includes projects to help separate pedestrians and bicyclists from vehicles and improve safety and accessibility.

At Westwood/UCLA station, there are three planned access points that will make Westwood Blvd., Wilshire Blvd., and Gayley Ave. critical for users. Project staff anticipates high rail ridership and a need to better connect the station to the UCLA campus and Westwood Village for both pedestrians and bicyclists. The critical connection between the station and the center of the UCLA campus will require a roughly 20-minute walk, a little shorter than the 25 minutes by rail between the station and downtown Los Angeles.

At the Westwood/VA Hospital station, the VA campus encompasses the majority of the ½-mile access shed. The station will serve a veteran population while at the same time be the western terminus of the Purple (D) line. Various cut-through pathways are proposed on the campus to improve accessibility. Metro coordinated with the VA Hospital throughout the development of the Plan and coordination efforts will continue through the completion of the Greater LA Veterans Affairs Draft

Master Plan.

A more detailed overview is available in the Plan Executive Summary in Attachment A.

Process

The project team developed the Plan between October 2018 and March 2020 using the methodology in the Board-adopted First/Last Mile Strategic Plan (2014) along with adjustments based on experience with past FLM plans. Activities included walk audits of station areas, community engagement events, coordination with local jurisdictions, and the creation of pathways networks and project ideas.

Community Engagement

Development of the Plan involved critical community engagement at various touchpoints. Community members provided local knowledge and insight that informed and largely determined the Plan's FLM projects. Staff aimed to reach diverse users of the streets including residents, students, businesses, and visitors to local attractions.

Engagement activities included eight walk audits—two for each station—conducted with community participation. For the walk audits, 231 individuals were invited to participate and ultimately 66 auditors recorded a total of 462 observations within a ½-mile radius of each station. Seven “pop-up” events were conducted locally at farmers markets and other community gatherings. These events tasked participants with analyzing large-format maps and providing feedback on potential FLM improvements. Surveys were also conducted at the pop-up events and online, resulting in 443 individual responses. Interviews with 21 stakeholders informed early stage planning work.

Metro's community engagement activities revealed sensitivities regarding FLM projects on Westwood Blvd. near the future Westwood/UCLA station. Staff met in-person with local community members, community groups including Neighborhood Councils and the Westwood Village Business Improvement District and issued a subsequent survey to collect written comments and better understand concerns. The survey yielded responses from 12 individuals. The comments focused on improvements to safety for cyclists and pedestrians; most comments regarding improved bicycle infrastructure expressed a desire for protected bicycle lanes, while confirming a broad range of opinion supporting and opposing proposed improvements on Westwood Blvd. and elsewhere in the station area. Metro is committed to further opportunities for community involvement and feedback as next steps are contemplated.

Coordination with Local Jurisdictions

FLM projects require close coordination with and buy-in from local authorities that control the right-of-way around Metro stations. Metro held meetings with staff from the City of Beverly Hills, the City of Los Angeles, the County of Los Angeles. Staff conducted similar levels of coordination with the West Los Angeles Veterans Affairs Hospital and UCLA.

Metro met with these agencies at the beginning of FLM planning to introduce activities, learn about

FLM needs and challenges, and discuss community engagement strategies. Metro also met with these agencies after the station pathways and potential projects were studied, providing them opportunity to review and comment on drafts of the Plan.

Local agency coordination also included briefings for elected official staff, and information presentations to local agency commissions/committees, Neighborhood Councils, and the Westwood Village Business Improvement District.

Comments from local jurisdictions and authorities on the Plan included interest in enhancement of bicycle facilities to protect bicyclists from vehicular traffic; a north/south bicycle and scooter connection between the Westwood/UCLA station and the UCLA campus; and sidewalk improvements and widening to serve anticipated increases in pedestrian traffic. Of note, comments from the City of Beverly Hills emphasized the opportunity to coordinate and align with the City's Draft Complete Streets Plan.

Project Prioritization

The Plan includes a technical exercise to identify priority projects for the design phase, subject to further consideration.

Equity Platform

The Equity Platform was addressed as follows:

- I. Define and Measure: Participation from different community stakeholders helped understanding of existing conditions around station areas;
- II. Listen and Learn: The plan was informed by extensive feedback with the broader community, including engagement at pop-up events and involvement of neighborhood groups, students and veterans at various stages of the process.

DETERMINATION OF SAFETY IMPACT

The recommended action has no direct safety impact. This Plan presents project ideas that promote improved safety for people walking or using non-motorized wheeled transportation around future Purple Line stations.

FINANCIAL IMPACT

Adoption of this Plan has no impact to the budget. Next steps on selected FLM improvements require subsequent Board action which would have financial impact and will be detailed at that time. Note that staff is developing FLM Guidelines to formalize the approach, and next steps will be recommended consistent with the Guidelines. At this time, and in light of COVID-19, staff is assessing the Metro financial impacts associated with the FLM program, including the relationship FLM has with the transit project, what steps might best be implemented by local agencies, and the impact of the local agency option to use the 3% match for FLM.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommended actions support two Strategic Plan goals:

- Deliver outstanding trip experiences (Goal #2): the FLM plan recognizes that trip experience includes time getting to and from transit stations. The Plan prepares projects that make trip experiences safer, more comfortable, and more accessible.
- Transform LA County through collaboration and leadership (Goal #4): Metro is uniquely situated to prepare FLM plans that span jurisdictional boundaries. In adopting this Plan, Metro can help facilitate implementation by local jurisdictions.

ALTERNATIVES CONSIDERED

The Board could decide not to approve the FLM Plan. This is not recommended for the following reasons:

- 1) Previous board action (Motion 14.1) directs FLM projects to be incorporated into transit corridor project delivery; and
- 2) The City of Los Angeles, the City of Beverly Hills, and the County of Los Angeles would not be able to apply FLM expenditures from the FLM Plan toward their 3% local contribution to the transit project.

NEXT STEPS

Staff anticipates returning to the Board concurrent with or following adoption of FLM Guidelines (anticipated summer 2020) with specific implementation recommendations for each of the Plans in line with the FLM Guidelines.

ATTACHMENTS

Attachment A - Purple Line Extension Sections 2&3 First/Last Mile Plan Executive Summary
Attachment B - Purple Line Extension Sections 2&3 First/Last Mile Plan (Core and Supporting Documents)

Prepared by: Renee Ho, Principal Transportation Planner, Countywide Planning & Development, (213) 922-4068
Jacob Lieb, Senior Director, Countywide Planning & Development, (213) 922-4132
Nick Saponara, DEO, Countywide Planning & Development, (213) 922-4313
Holly Rockwell, SEO - Real Estate, Transit Oriented Communities and Transportation Demand Management, (213) 922-5585

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



Phillip A. Washington
Chief Executive Officer

Attachment A – Purple Line Extension Sections 2&3 First/Last Mile Plan Executive Summary

The First/Last Mile (FLM) Plan (Plan) for the Purple Line Extension Sections 2 & 3 (PLE 2&3) analyzed FLM connections for the rail project’s four stations by executing Metro’s FLM planning methodology. The Plan responds to FLM policy directives: Metro Board Motion 14.1 in May 2016 and 14.2 in June 2016.

Section 2 of PLE will extend the subway west to downtown Beverly Hills and Century City. Section 3 will extend the subway further to Westwood (See Figure 1). Both sections are currently under construction with scheduled completion in 2025 and 2027, respectively. The four stations in PLE 2&3 include:

- Wilshire/Rodeo
- Century City/Constellation
- Westwood/UCLA
- Westwood/VA Hospital



Figure 1: Purple Line Extension

For each station, the Plan identifies pedestrian-focused and wheel-mode-focused (bicycles, scooter, skateboard, etc.) projects that improve safety and access to the station along specified routes that collectively are called “the Pathway”. The projects are located within the ½-mile radius of the station.

The core products of FLM planning include the following for each of the stations:

1. Pathway Maps
2. Project List
3. Rough-Order-of-Magnitude (ROM) Cost Estimation
4. Project Scoring and Prioritization

Core documents are accompanied by supporting documents that detail additional findings and information regarding process and methodology.

Key Findings

The existing conditions at each station vary in terms of the built environment, existing traffic, land-uses, and populations served. The following key findings were determined through the planning process:

- Wilshire/Rodeo: many FLM-supportive features are already in place throughout the station area; however, further enhancements would improve safety and accessibility for transit riders. The main station arterials of Beverly Dr. and Wilshire Blvd. are heavily trafficked and would benefit from bus stop enhancements, high-visibility crosswalks, and street furniture. Bicycle connections are key to station access; the draft *Beverly Hills Complete Streets Plan* includes proposed bicycle improvements that are reflected in the PLE 2&3 FLM Plan. Because the station portal is slightly removed from the main downtown destinations, passive and active wayfinding should be introduced.
- Century City/Constellation: The station area includes wide streets and long blocks along Olympic Blvd., Santa Monica Blvd., and Avenue of the Stars, which are key spines for vehicular access. Separating pedestrians and bicyclists from vehicles will be needed to improve safety and access. Key pedestrian amenities should include street trees and landscaping, street furniture, improved sidewalks, enhanced crosswalks, and comprehensive wayfinding. Bike facilities should be included as part of the pathway network especially as they could enhance other bike plans in the *LA City Mobility Plan 2035* and the draft *Beverly Hills Complete Streets Plan*.
- Westwood/UCLA: The station has three planned access points that will make Westwood Blvd., Wilshire Blvd., and Gayley Ave. critical for users. There will be high ridership and a need to connect the station to the UCLA campus. Currently, there is pressure on sidewalks and limited bicycle connectivity. Wilshire Blvd. is highly trafficked and needs many pedestrian improvements. Gayley Ave., which connects the station to Westwood Village, UCLA, and student housing and residential areas, could be enhanced with better crosswalks, lighting, corner bulb-outs, a bike facility, and signage. Westwood Blvd. could also benefit from improved bicycle facilities. Elsewhere, cut-through paths could help facilitate additional station access.
- Westwood/VA Hospital: The VA campus encompasses the majority of the ½-mile radius surrounding the station. The station will serve a largely veteran population, providing mobility for a group that often relies on public transportation. Currently, access across the campus is limited, causing difficulties for pedestrians and bicyclists. The station design includes a passenger drop-off zone; as the western terminus of the Purple Line, high demand for cars picking up or dropping off transit riders is anticipated. Various cut-throughs are proposed on the campus to improve accessibility and will need to be coordinated with the *Greater LA Veterans Affairs Draft Master Plan* that also has several pedestrian pathways, bike routes, and shuttle paths.

First/Last Mile Process

The FLM methodology is well documented in Metro’s First Last Mile Strategic Plan (2014) and completed FLM plans (<https://www.metro.net/project/first-last>). A brief summary of the steps and timeline specific to the PLE 2&3 FLM Plan is presented in *Figure 2*.

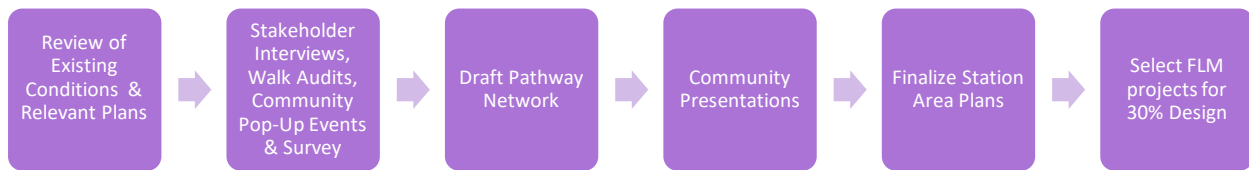


Figure 2: Summarized FLM methodology for PLE 2&3

Throughout the steps above, the team coordinated with staff and elected offices from the City of Los Angeles, the City of Beverly Hills, and the County of Los Angeles along with other institutional stakeholders including the University of California, Los Angeles, and the Veterans Affairs hospital.

What’s in the Plan

The Plan is composed of the following core and supporting documents for each of the four PLE 2&3 stations:

➤ Core documents:

1. Pathway Maps: A Pathway Map displays the Pathway Network (key corridors to focus pedestrian and wheeled connections to the station) and project ideas along the Pathway Network. For each of the four stations, two pathway maps were created—one for walking projects and one for wheel projects (for bicycles and other rolling modes).
2. Project List: This document presents project ideas that correspond to those in the Pathway Maps. They are organized in the following order: FLM Pathway arterials (primary routes), FLM Pathway collectors (secondary routes), and FLM Pathway cut-throughs (shortcuts). The lists also separate project ideas as those running along a corridor and those at unique points (spot improvements).
3. Cost Estimation: This document presents Rough Order of Magnitude (ROM) cost estimates. Each station has a summary of total costs that are disaggregated into construction costs, soft costs, contingency, and escalation. Each station also has the cost estimates disaggregated by segment of the Pathway Network and project ideas on it. Cost assumptions are provided separately in a supporting document.
4. Project Scoring: This document prioritizes ideas from the Project Lists based on a technical analysis. There is a separate prioritization for each station and for pedestrian and wheels improvements. Projects and their prioritization are grouped by segment of the Pathway Network. Considerations in the technical analysis include safety,

comfort, community input, and connectivity. Prioritization also includes cost information and indicates which projects are recommended to proceed to a preliminary engineering (PE) stage. A more detailed methodology is provided separately in supporting documents.

➤ Supporting documents:

1. Existing Conditions: This document serves as a preliminary station analysis that includes research on existing conditions and local plans and projects. The research covers characteristics identified in Metro's *First Last Mile Strategic Plan & Planning Guidelines*: street grid, pedestrian shed, vehicular speeds, key access corridors, bicycle and pedestrian collisions, bicycle connections, transit connections, land use, and points of interest.
2. Community Engagement and Local Coordination: The FLM Plan for PLE 2&3 was developed with significant input from communities and local agencies. This document provides information on the various community outreach activities including stakeholder interviews, walk-audits, pop-up events, surveys. It also provides information on meetings with local agencies and institutional actors.
3. Walk Audit Results: This document summarizes the Walk Audit activity and key takeaways. Maps are provided for each station and show the observations made by walk audit participants, and how these observations relate to station connectivity, safety, and comfort.
4. Project Origins: This document provides a high-level overview of how FLM Plan improvement ideas were sourced. For each station area and each Pathway segment, the document explains whether the origin was from walk-audit feedback, stakeholder interviews, community pop-up event data, or from technical analysis of the area.
5. Cost Assumptions: This document summarizes the project elements and unit cost assumptions used in the development of conceptual-level cost estimates. It is divided into walking and biking (wheels) improvements.
6. Project Scoring Methodology: FLM Plans include a wide breath of walking and wheel improvements. To help decide which projects to prioritize, a structured, data-based methodology was used to help quantify a project's safety, comfort, community input, and connectivity. The result of this applied methodology is the scoring of each Pathway segment and its projects.
7. Project Prioritization Methodology: There is a need to prioritize FLM Plan projects based on an assumed budget constraint. This document further orders projects beyond the initial project technical prioritization and selects projects to advance to the next stage of 30% design. The document explains the methodology as well as the final selected projects.

Next stop: connected communities.

PURPLE LINE EXTENSION FIRST/LAST MILE PLAN
Sections 2 & 3



Purple Line Extension Sections 2&3 First/Last Mile Plan

Executive Summary iii

Core Documents

I. Pathway Maps	I-1
II. Project List	II-1
III. Rough-Order-of-Magnitude (ROM) Cost Estimation	III-1
IV. Project Scoring and Prioritization	IV-1

Supporting Documents

V. Existing Conditions	V-1
VI. Community Engagement & Local Coordination	VI-1
VII. Walk Audit Results	VII-1
VIII. Project Origins	VIII-1
IX. Cost Assumptions	IX-1
X. Project Scoring Methodology	X-1
XI. Project Prioritization Methodology	XI-1

Purple Line Extension Sections 2&3 First/Last Mile Plan, Executive Summary

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Section 2 of PLE will extend the subway west to downtown Beverly Hills and Century City. Section 3 will extend the subway further to Westwood (See Figure 1). Both sections are currently under construction with scheduled completion in 2025 and 2027, respectively. The four stations in PLE 2&3 include:

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1. Pathway Maps
2. Project List
3. Rough-Order-of-Magnitude (ROM) Cost Estimation
4. Project Scoring and Prioritization

Core documents are accompanied by supporting documents that detail additional findings and information regarding process and methodology.

Key Findings

The existing conditions at each station vary in terms of the built environment, existing traffic, land-uses, and populations served. The following key findings were determined through the planning process:

- Wilshire/Rodeo: many FLM-supportive features are already in place throughout the station area; however, further enhancements would improve safety and accessibility for transit riders. The main station arterials of Beverly Dr. and Wilshire Blvd. are heavily trafficked and would benefit from bus stop enhancements, high-visibility crosswalks, and street furniture. Bicycle connections are key to station access; the draft *Beverly Hills Complete Streets Plan* includes proposed bicycle improvements that are reflected in the PLE 2&3 FLM Plan. Because the station portal is slightly removed from the main downtown destinations, passive and active wayfinding should be introduced.
- Century City/Constellation: The station area includes wide streets and long blocks along Olympic Blvd., Santa Monica Blvd., and Avenue of the Stars, which are key spines for vehicular access. Separating pedestrians and bicyclists from vehicles will be needed to improve safety and access. Key pedestrian amenities should include street trees and landscaping, street furniture, improved sidewalks, enhanced crosswalks, and comprehensive wayfinding. Bike facilities should be included as part of the pathway network especially as they could enhance other bike plans in the *LA City Mobility Plan 2035* and the draft *Beverly Hills Complete Streets Plan*.
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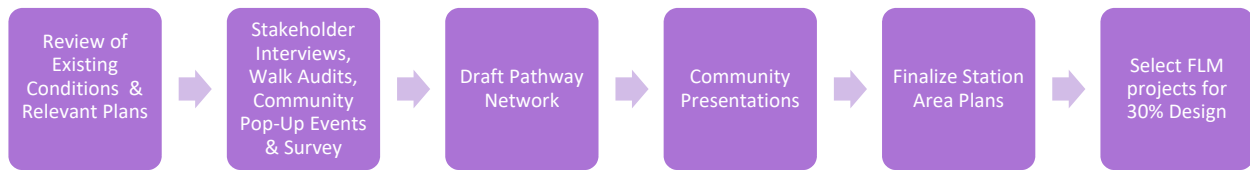


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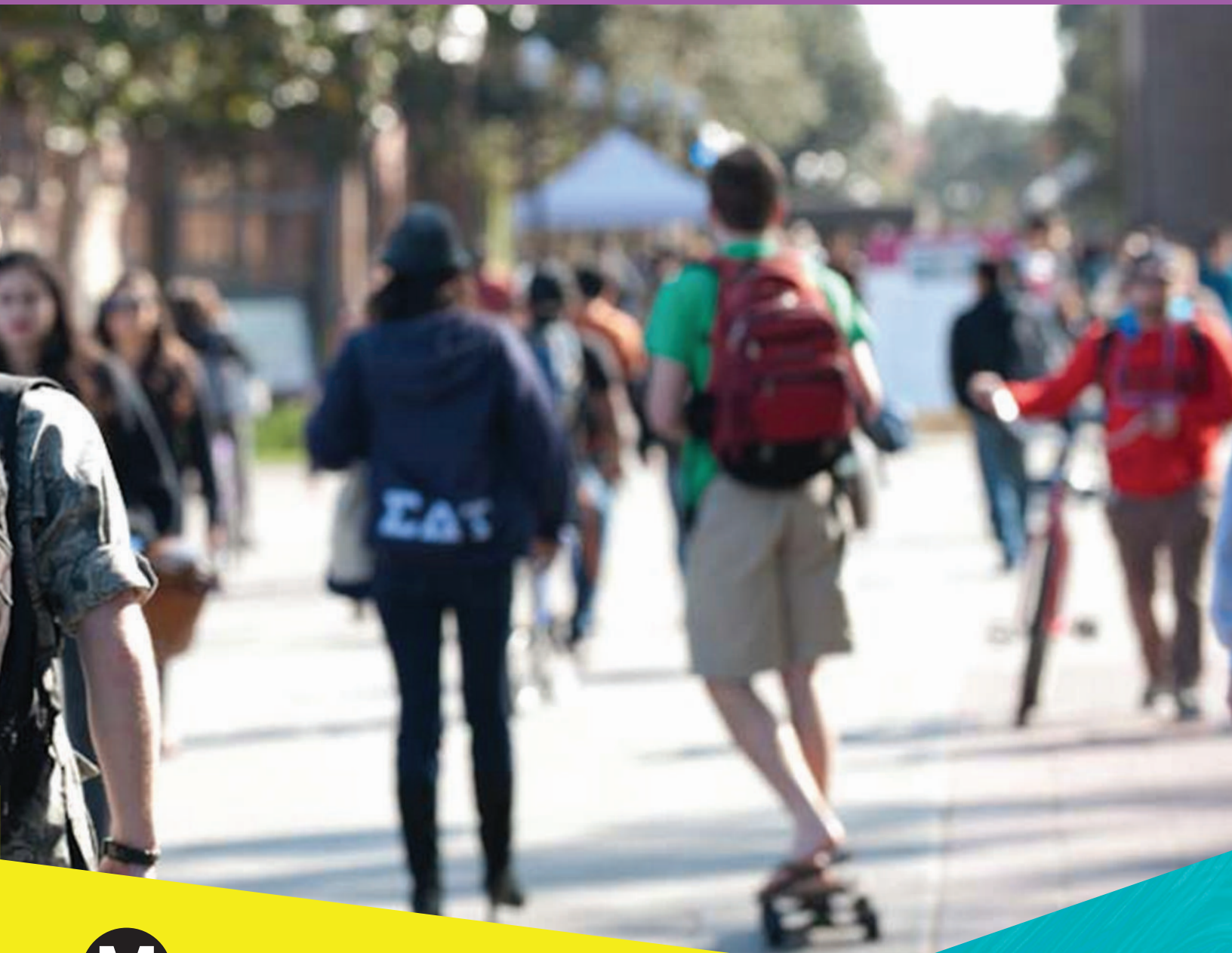
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Core Documents

Next stop: connected communities.

PATHWAY MAPS

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

Wilshire / Rodeo

The Wilshire / Rodeo station area serves downtown Beverly Hills, with a station portal three blocks east of Rodeo Dr. and a few blocks south of City Hall, on the south side of Wilshire Blvd. Because the station portal is slightly removed from the main downtown destinations (for example Rodeo Dr.), passive wayfinding, such as logical pathways, and active wayfinding, such as directional signage, should be introduced to help point people coming and going from station to local destinations.

Many first/last mile-supportive street improvements are already in place throughout the station area, especially north of Wilshire Blvd., such as lighting, pleasant streetscape design, wide sidewalks, trees, and crosswalks. Further enhancements should be made, however, to make the area more transit-friendly (beyond the aforementioned wayfinding opportunities). For example, several existing crosswalks should be

upgraded to continentals, while trees, lighting, and street furniture should be added where appropriate.

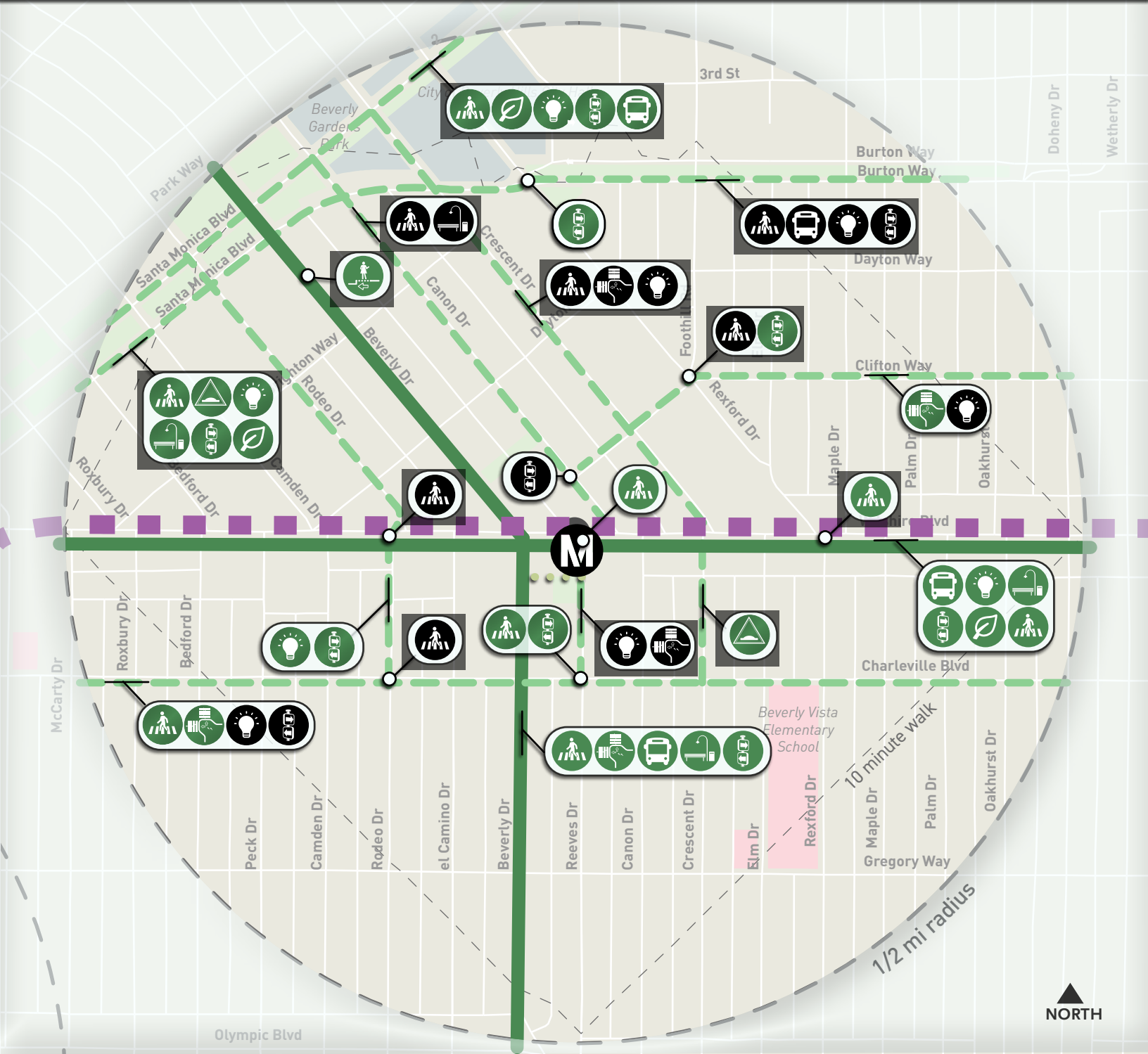
The Draft *Beverly Hills Complete Streets Plan* proposes a series of bike connections that will help facilitate station access. With multiple modes vying for busy streetspace, it will be important to ensure that these facilities provide optimal protection for bicyclists. The bike connections proposed in the *Beverly Hills Complete Streets Plan* are reflected in this plan and are key to improving station access.

The main station arterials of Beverly Dr. and Wilshire Blvd. are heavily trafficked and would benefit from a full suite of first/last mile improvements, such as bus stop enhancements, high-visibility crosswalks, and street furniture. Wilshire Blvd. also needs additional street trees to improve the walking experience.

Key Community Feedback

Feedback from community outreach supported many of the recommendations made in the draft maps. At Wilshire/Rodeo, the following improvements were added to the draft pathway networks because of significant outreach feedback:

- New or Improved Crosswalk at Wilshire Blvd. and Rexford Dr.
- Traffic Calming on S. Santa Monica Blvd.
- Street Furniture on Canon Dr.
- Bicycle-friendly Intersection at Beverly Blvd. and Gregory Wy.
- Bicycle-friendly Intersections along Charleville Blvd.



Proposed Improvements

- Bulb-outs
- Bus Stop Improvement
- Landscaping & Shade
- New or Improved Crosswalk
- New or Improved Sidewalk
- Pedestrian & Bicycle Lighting
- Street Furniture
- Traffic Calming
- Wayfinding Signs

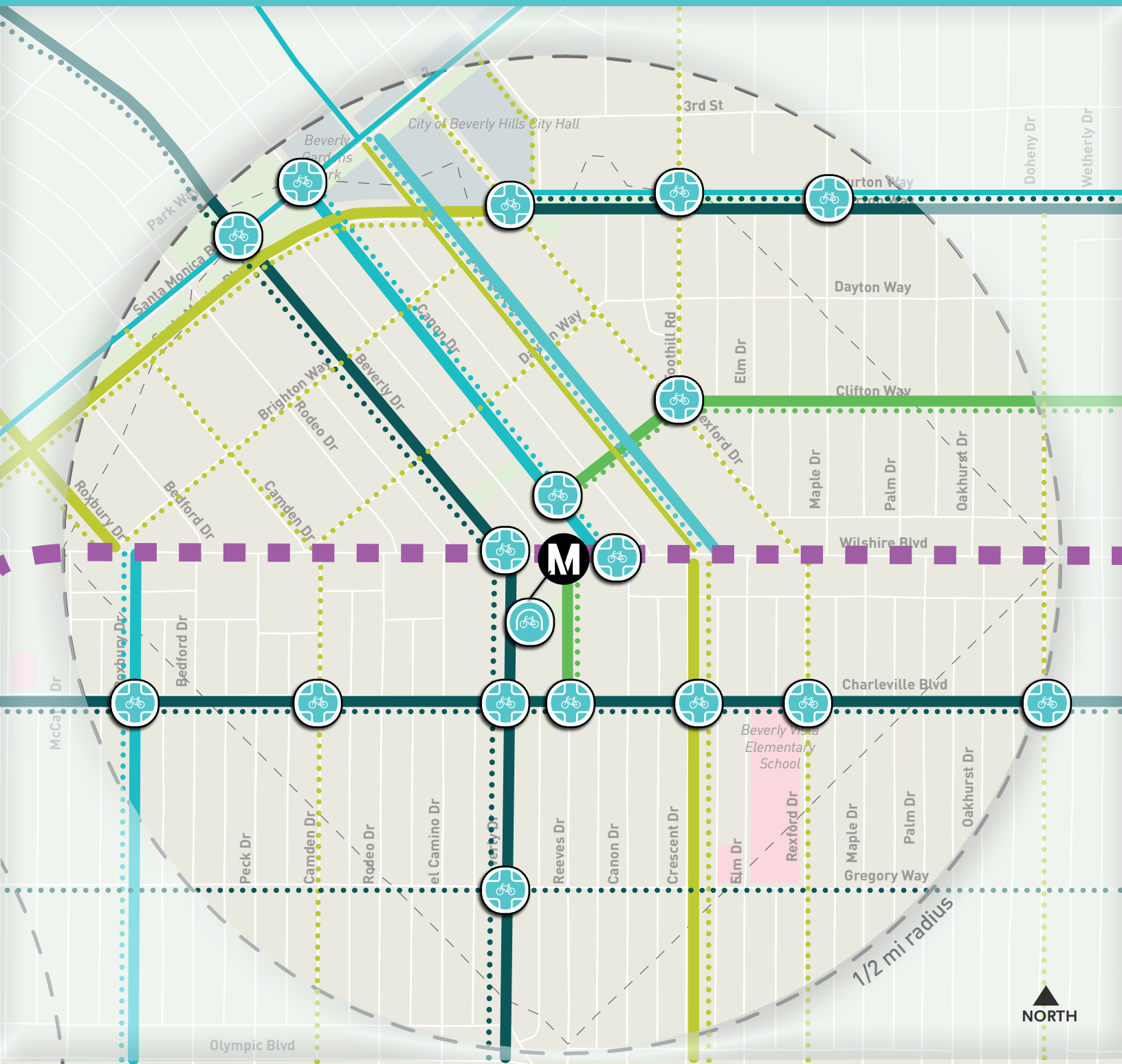
Improvement Type

- Spot Improvement
Location-Specific Idea
- Corridor Improvement

Street Type

- FLM Pathway Arterial
Primary Routes
- FLM Pathway Collector
Secondary Routes
- FLM Pathway Cut-Through
Shortcut

- Metro Purple Line
- 10 Minute Walk From Station



Existing

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

City/County Plan Proposed

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Facility

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Amenity

- Bicycle Friendly Intersection
- Bicycle Hub
- Metro Purple Line
- 10 Minute Walk From Station

Century City / Constellation

The Century City / Constellation station is located at the intersection of Avenue of the Stars and Constellation Blvd., connecting transit users to key destinations such as the Westfield Mall, nearby office buildings, 20th Century Fox studios, hotels in the area and adjacent residential neighborhoods.

Around the station, the streets are comprised of wide boulevards and long blocks along Olympic Blvd., Santa Monica Blvd., and Avenue of the Stars, which are key spines for vehicular access. Separating pedestrians and bicyclists from vehicles will be needed to improve safety and access.

Key pedestrian amenities that will improve the experience for those walking along the street include street trees and landscaping, street furniture, lighting, and improved sidewalks. In addition, comprehensive wayfinding

and enhanced crosswalks are recommended.

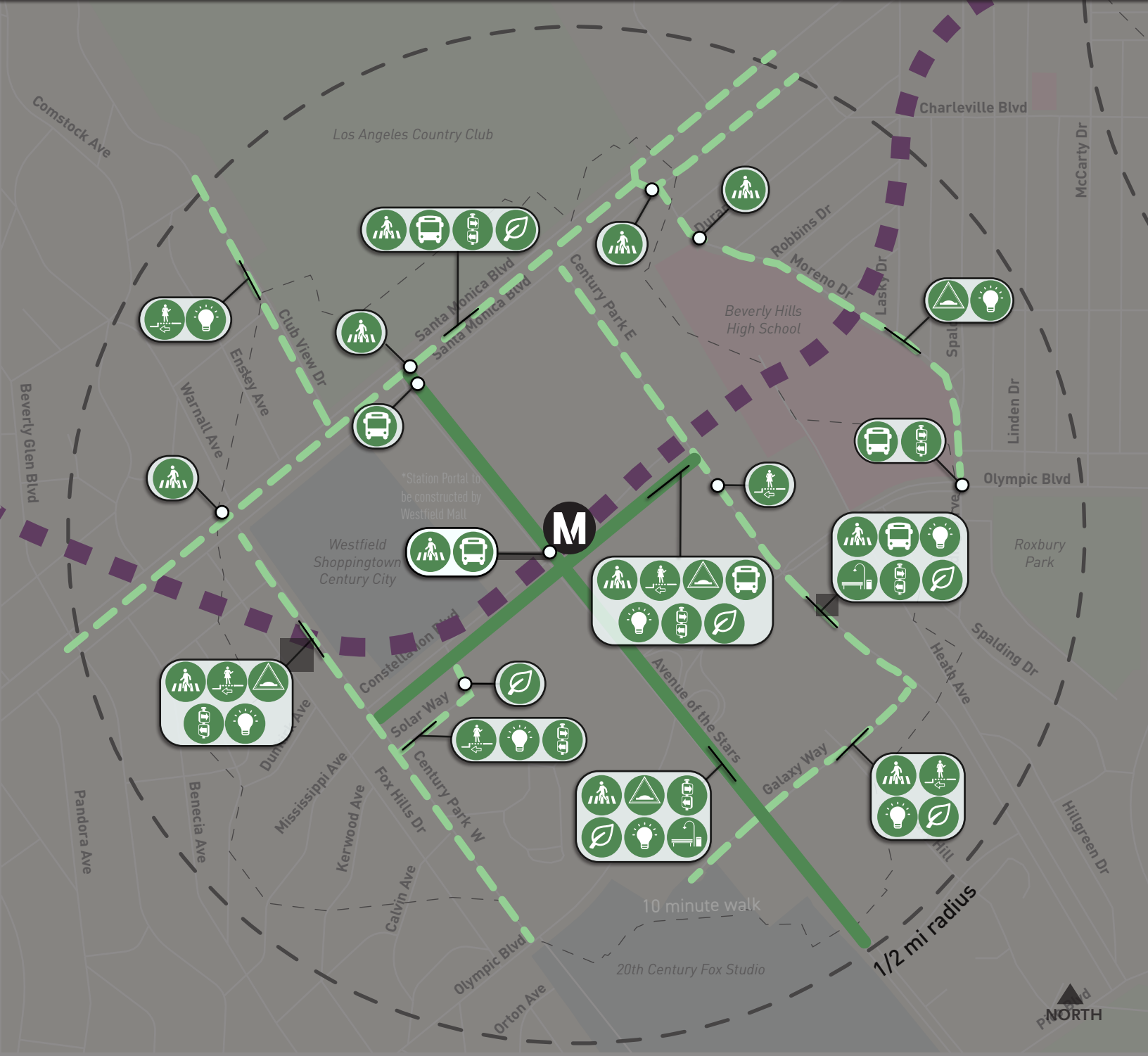
Residential communities surround Century City. Existing streets enhanced for first/last mile access would connect these neighborhoods to the station, allowing riders to access the Purple Line safely and swiftly.

Key bike connections are proposed as part of the *LA City Mobility Plan 2035* and the *Beverly Hills Draft Complete Streets Plan*, which aim to improve the experience of getting to the station. Additional bike facilities proposed as part of the pathway network should enhance these recommended improvements.

Key Community Feedback

Feedback from community outreach supported many of the recommendations made in the draft maps. At Century City/Constellation, the following improvements were added to the draft pathway networks because of significant outreach feedback:

- New or Improved Sidewalks on Galaxy Wy.
- Bus Stop Improvements at Avenue of the Stars and Constellation Blvd.
- Bicycle-friendly Intersections on Century Park E at Santa Monica Blvd., Constellation Blvd., Olympic Blvd., and Galaxy Way



Proposed Improvements

- Bulb-outs
- Bus Stop Improvement
- Landscaping & Shade
- New or Improved Crosswalk
- New or Improved Sidewalk
- Pedestrian & Bicycle Lighting
- Street Furniture
- Traffic Calming
- Wayfinding Signs

Improvement Type

- Spot Improvement
Location-Specific Idea
- Corridor Improvement

Street Type

- FLM Pathway Arterial
Primary Routes
- FLM Pathway Collector
Secondary Routes
- FLM Pathway Cut-Through
Shortcut

Metro Purple Line

10 Minute Walk From Station



Existing

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

City/County Plan Proposed

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Facility

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Amenity

- Bicycle Friendly Intersection
- Bicycle Hub
- Metro Purple Line
- 10 Minute Walk From Station

Westwood / UCLA

Because of its high projected ridership, the Westwood / UCLA station should be served by a robust network of streets and cut-throughs as part of the first/last mile pathway network. With three planned access points to the station, the main arterials of Westwood Blvd., Wilshire Blvd., and Gayley Ave. will be critical for station access.

Westwood pulls pedestrian traffic from Westwood Village to the north and the Westwood shops and destinations to the south. Westwood Blvd. serves as a key connection and activity center, but will need enhancements to accommodate new demands associated with the station such as improved bicycle facilities and enhanced bus stops and crosswalks.

Wilshire Blvd. is a highly-trafficked thoroughfare that would benefit from numerous improvements. Pedestrian improvements in particular are proposed on Wilshire Blvd, given the intensity of current and future demands along the corridor.

Gayley Ave. will also connect the station to Westwood Village, the UCLA campus, and student housing and residential areas. Gayley Ave. already has trees along most of its length, but can be enhanced with better crosswalks, lighting, corner bulb-outs, a bike facility, and signage.

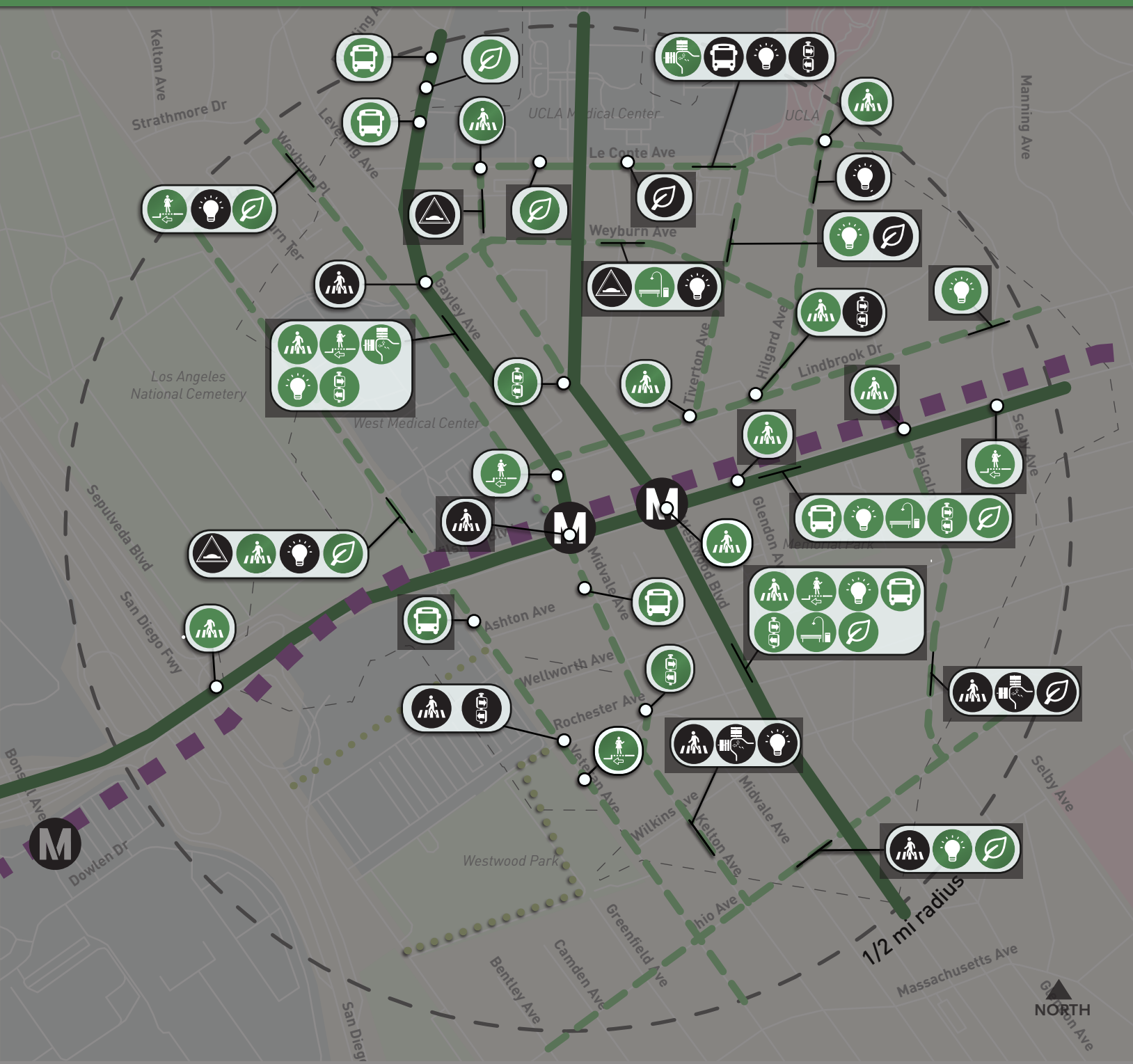
The pathway collectors proposed within the station area serve the active Westwood Village, as well as surrounding residential areas north and south of the station. In these areas, bike facilities, lighting and signage are typical enhancements proposed, since many areas already have an adequate tree canopy. In the blocks between Sepulveda Blvd. and Veteran Ave., cut-through paths could help to facilitate access to and from the station.

Overall the Westwood / UCLA station area currently has an adequate street grid. Sidewalk improvements, such as continental crosswalks and street trees, are already in place. Further enhancements can be added, however, to make the station area more transit-supportive.

Key Community Feedback

Feedback from community outreach supported many of the recommendations made in the draft maps. At Westwood/UCLA, the following improvements were added to the draft pathway networks because of significant outreach feedback:

- Traffic Calming, Bicycle Facility, and Bicycle-friendly Intersections along Veteran Ave.
- Street Furniture on Westwood Blvd.
- Landscaping & Shade on Westwood Blvd.



Proposed Improvements

- Bulb-outs
- Bus Stop Improvement
- Landscaping & Shade
- New or Improved Crosswalks
- New or Improved Sidewalks
- Pedestrian & Bicycle Lighting
- Street Furniture
- Traffic Calming
- Wayfinding Signs

Improvement Type

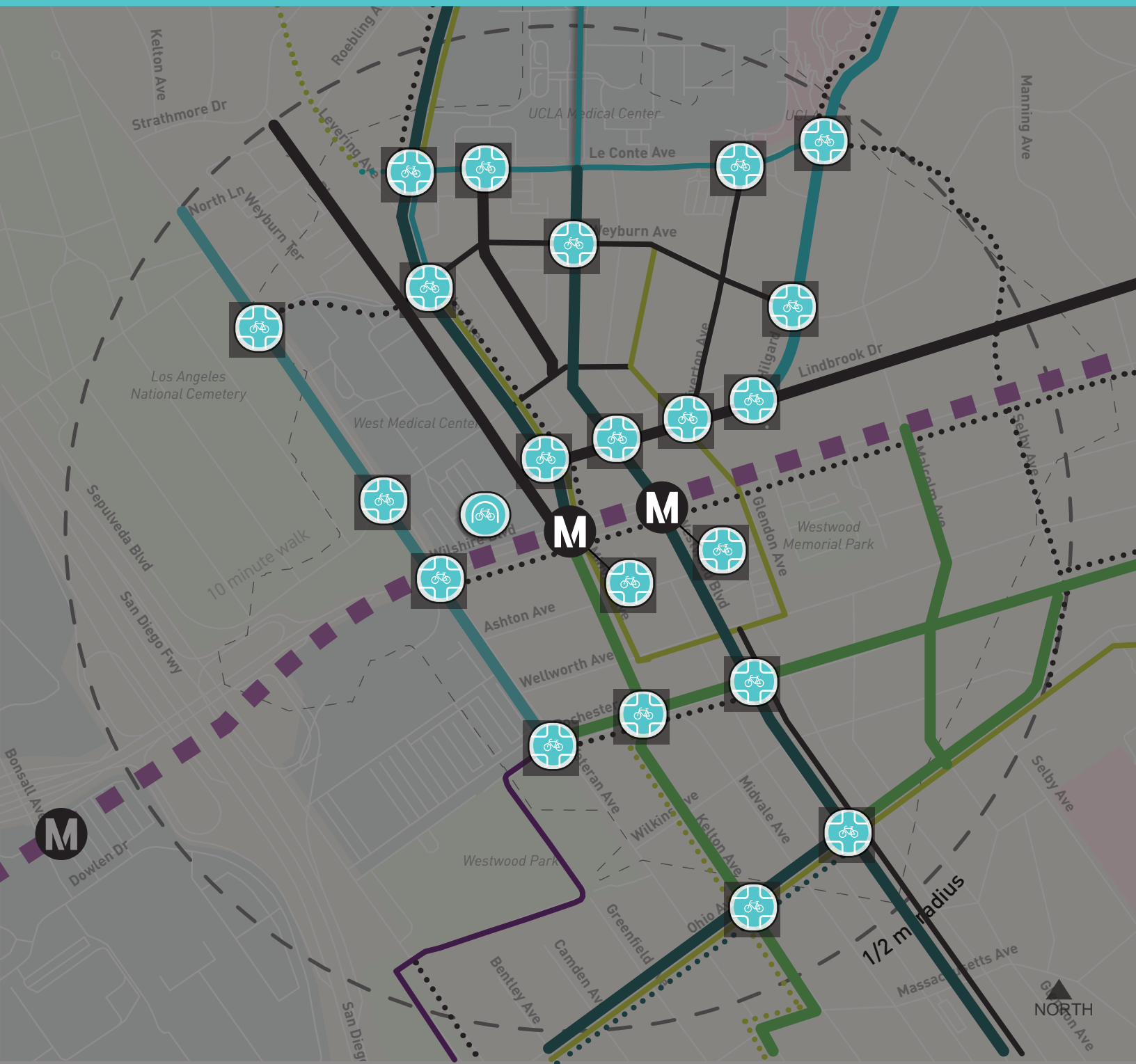
- Spot Improvement
Location-Specific Ideas
- Corridor Improvement

Street Type

- FLM Pathway Arterial
Primary Routes
- FLM Pathway Collector
Secondary Routes
- FLM Pathway Cut-Through
Shortcut

Metro Purple Line

10 Minute Walk From Station



Existing

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

City/County Plan Proposed

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Facility

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Amenity

- Bicycle Friendly Intersection
- Bicycle Hub
- Metro Purple Line
- 10 Minute Walk From Station

Westwood / VA Hospital

The Westwood/VA Hospital station is the terminus station of the Purple Line Extension. The station will be located south of Wilshire Blvd. and east of Bonsall Ave., and will connect to the Veterans Affairs (VA) Campus. This station will serve the unique needs of the campus' veteran population, providing added mobility for a group that often relies on public transportation.

The VA has recently developed the *Greater Los Angeles Veterans Affairs Draft Master Plan* that is anticipated to be implemented in phases over the next 20 years. The Draft Master Plan incorporates several pedestrian pathways, bike routes, and shuttle paths that will help visitors navigate the campus.

This station presents unique challenges, as the VA campus encompasses the majority of the 1/2-mile radius surrounding the station. Currently, access across the campus is limited, causing difficulties for pedestrians or bicyclists. While more porous connections are recommended through the pathway network, wayfinding and signage directing transit users to the Metro station will need to be intuitive and frequent to ensure ease of navigation. Due to this station serving as the terminus to the Purple Line, Metro expects high demand for cars picking

up or dropping off transit riders, and is therefore incorporating a drop-off zone into the station's design.

The 1/2-mile radius surrounding the station is also bifurcated by the 405 Freeway, which acts as a barrier. Although riders coming from the east will likely use the neighboring Westwood / UCLA station, additional considerations should be made for those traveling from the east along Wilshire Blvd.

Wilshire Blvd. is proposed as a key east-west first/last mile arterial. Given vehicular volumes along Wilshire Blvd., improvements for those on foot will be needed for people accessing the terminus station. The fluctuating topography in this area also separates Wilshire Blvd. from the station, and will require a comprehensive wayfinding program to direct riders to the station.

The proposed pathway cut-throughs on the VA Campus will help move VA visitors through the campus and safely to the station along calm, pleasant streets.

Other cut-throughs are proposed along the eastern edge of the 1/2-mile station area to connect users through large parcels that are currently acting as barriers (i.e. through the LA Passport Agency and Westwood Park).

Key Community Feedback

Feedback from community outreach supported many of the recommendations made in the draft maps. At Westwood/VA Hospital, the following improvements were added to the draft pathway networks because of significant outreach feedback:

- Landscaping & Shade on San Vicente Blvd., north of Wilshire Blvd.



Proposed Improvements

- Bulb-outs
- Bus Stop Improvement
- Landscaping & Shac
- New or Improved Crosswall
- New or Improved Sidewall
- Pedestrian & Bicycle Lighting
- Street Furnitur
- Tra c Calming
- Way nding Signs

Improvement Type

- Spot Improvement
Location-Specific Idea
- Corridor Improvement

Street Type

- FLM Pathway Arterial Primary Routes
- FLM Pathway Collector Secondary Routes
- FLM Pathway Cut-Through Shortcut

- Metro Purple Line
- 10 Minute Walk From Station



Existing

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

City/County Plan Proposed

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Facility

- Sharrow
- Bicycle Boulevard
- Bicycle Lane
- Protected Bicycle Lane
- Shared Use Path

FLM Proposed Amenity

- Bicycle Friendly Intersection
- Bicycle Hub
- Metro Purple Line
- 10 Minute Walk From Station

Next stop: connected communities.

PROJECT LIST

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

PROJECT LIST

WILSHIRE/RODEO STATION

Project	Description	Extents	Proposed Corridor Improvements	Proposed Spot Improvements
Wilshire Blvd.	Arterial	Linden Dr. to Wetherly Dr. (approx. 5,800 LF)	Bus Stop Improvements, New or Improved Crosswalks, Pedestrian & Bicycle Lighting Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Beverly Dr., Canon Dr.) Bicycle Hub (at Reeves Dr.) New or Improved Crosswalks (at Rodeo Dr., Rexford Dr.)
Beverly Dr.	Arterial	Park Way to Olympic Blvd. (approx. 5,200 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, Street Furniture, Wayfinding Signage, Bulb-outs	Bicycle-friendly Intersections (at Wilshire Blvd., Charleville Blvd., Gregory Way, North Santa Monica Blvd.), New or Improved Sidewalks (narrow condition between S. Santa Monica Blvd. and Brighton Way)
N. Santa Monica Blvd.	Arterial	Bedford Dr. to N. Alpine Dr. (approx. 2,800 LF)	Bus Stop Improvements, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Beverly Dr., Canon Dr.)
S. Santa Monica Blvd.	Collector	Roxbury Dr. to Rexford Dr. (approx. 3,000 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade, Traffic Calming	Wayfinding Signage (at Rexford Dr.)
Burton Way	Collector	Canon Dr. to Oakhurst Dr. (approx. 2,500 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage	Wayfinding Signage (at Rexford Dr.), Bicycle-friendly Intersections (at Rexford Dr., Foothill Rd., Maple Dr.)
Clifton Way	Collector	Rexford Dr. to Doheny Dr. (approx. 2,000 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting, Bulb-outs	Bicycle-friendly Intersections (at Rexford Dr., Canon Dr.), New or Improved Crosswalks (at Rexford Dr.), Wayfinding Signage (at Rexford Dr., Canon Dr.)
Charleville Blvd.	Collector	McCarty Dr. to Doheny Dr. (approx. 5,200LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Bulb-outs	Bicycle-friendly Intersections (at Roxbury Dr., Camden Dr., Beverly Dr., Reeves Dr., Crescent Dr., Rexford Dr., Doheny Dr.), New or Improved Crosswalks (at Rodeo Dr., Reeves Dr.), Wayfinding (at Reeves Dr.)
Rodeo Dr.	Collector	Santa Monica Blvd. to Charleville Blvd (approx. 2,400 LF)	Pedestrian & Bicycle Lighting, Wayfinding Signage	New or Improved Crosswalks (at Wilshire Blvd., Charleville Blvd., Gregory Way)
Reeves Dr.	Collector	Wilshire Blvd. to Charleville Blvd. (approx. 800 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting, Bulb-outs	Bicycle-friendly Intersections (at Charleville Blvd.), New or Improved Crosswalks (at Charleville Blvd., Wilshire Blvd.), Wayfinding Signage (at Charleville Blvd.), Bicycle Hub (at Wilshire Blvd.)
Canon Dr.	Collector	Santa Monica Blvd. to Wilshire Blvd. (approx. 2,500 LF)	Bicycle Facilities, New or Improved Crosswalks, Street Furniture	Bicycle-friendly Intersections (at Santa Monica Blvd., Clifton Way, Wilshire Blvd.), Wayfinding Signage (at Clifton Way), New or Improved Crosswalk (at Wilshire Blvd.).
Crescent Dr.	Collector	Santa Monica Blvd. to Charleville Blvd. (approx. 3,500 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Traffic Calming (south of Wilshire Blvd.), Bulb-outs	Bicycle-friendly Intersections (at Charleville Blvd.)
Roxbury Dr.	Collector	Santa Monica Blvd. to Olympic Blvd. (approx. 3,600 LF)	Bicycle Facilities	Bicycle-friendly Intersections (at Charleville Blvd.)
Reeves Park Cut-through	Cut-through	N/A	Assumes pedestrian pathway improvements, e.g. lighting, signage, and enhanced paving.	N/A

PROJECT LIST

CENTURY CITY/CONSTELLATION STATION

Project	Description	Extents	Proposed Corridor Improvements	Proposed Spot Improvements
Constellation Blvd.	Arterial	Century Park W to Century Park E (approx. 2,200 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade, Traffic Calming	Bicycle-friendly Intersections (at Century Park W, Avenue of the Stars, & Century Park E), Bus Stop Improvements (at Avenue of the Stars) Bicycle Hub (at station), Crosswalk Improvements (at Avenue of the Stars)
Avenue of the Stars	Arterial	Santa Monica Blvd. to Pico Blvd. (approx. 5,000 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade, Traffic Calming	Bicycle-friendly Intersections (at Santa Monica Blvd., Constellation Blvd.), Bus Stop Improvements (at Constellation Blvd., Santa Monica Blvd.), Bicycle Hub (at station)
Santa Monica Blvd.	Arterial	Pandora Ave. to Wilshire Blvd. (approx. 5,800 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Century Park W, Club View Dr., Avenue of the Stars, Century Park E, Moreno Dr., Lasky Dr.), Crosswalk Improvements (at Century Park W, Avenue of the Stars, Moreno Dr.)
Solar Way	Collector	Century Park W to Constellation Blvd. (approx. 1,200 LF)	Bicycle Facilities, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Wayfinding Signage	Landscaping & Shade (between Constellation Blvd. and Solar Wy.)
Galaxy Way	Collector	Western street terminus to Century Park E (approx. 1,600 LF)	New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Landscaping & Shade	Bicycle-friendly Intersections (at Century Park E)
Club View Dr.	Collector	Rochester Ave to Santa Monica Blvd. (approx. 2,000 LF)	Bicycle Facilities, New or Improved Sidewalks, Pedestrian & Bicycle Lighting	Bicycle-friendly Intersections (at Santa Monica Blvd.)
Century Park W	Collector	Santa Monica Blvd. to Olympic Blvd. (approx. 2,800 LF)	Bicycle Facilities, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Traffic Calming	Bicycle-friendly Intersections (at Constellation Ave., Santa Monica Blvd.)
Century Park E	Collector	Santa Monica Blvd. to Galaxy Way (approx. 3,000 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Santa Monica Blvd., Constellation Blvd., Olympic Blvd., Galaxy Way), New or Improved Sidewalks (south of Constellation Blvd.)
Moreno Dr.	Collector	Santa Monica Blvd. to Spaulding Dr. (approx. 1,900 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting, Traffic Calming	Bicycle-friendly Intersections (at Santa Monica Blvd.), New or Improved Crosswalks (at Durant Dr., S. Santa Monica Blvd.)
Spaulding Dr.	Collector	Wilshire Blvd. to Olympic Blvd. (approx. 2,600 LF)	Bicycle Facilities	Bus Stop Improvements (at Olympic Blvd.), Wayfinding Signage (at Olympic Blvd.)
Warnall Ave./ Wilkins Ave	N/A (Bicycle Facility Only)	Beverly Glen Blvd. to Santa Monica Blvd. (approx. 1,800 LF)	Bicycle Facilities	New or Improved Crosswalks (at Santa Monica Blvd.)

PROJECT LIST

WESTWOOD/UCLA STATION

Project	Description	Extents	Proposed Corridor Improvements	Proposed Spot Improvements
Wilshire Blvd.	Arterial	405 Freeway. to Manning Ave. (approx. 5,300 LF)	Bus Stop Improvements, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Veteran Ave., Gayley Ave., Westwood Blvd.), New or Improved Crosswalks (at Westwood Blvd., Gayley Ave., Glendon Ave., Malcolm Ave., 405 Freeway onramp) New or Improved Sidewalks (near Selby Ave.), Bicycle Hub (at station)
Gayley Ave.	Arterial	Charles E Young Dr. to Wilshire Blvd. (approx. 3,400 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Bulb-outs, New or Improved Sidewalks	Bicycle-friendly Intersections (at Le Conte Ave., Weyburn Ave., Lindbrook Dr.), Bus Stop Improvements (north of Le Conte Ave.), Landscaping & Shade (north of Le Conte Ave.), Bicycle Hub (at station), New or Improved Crosswalks (at Weyburn Ave., Wilshire Blvd.), New or Improved Sidewalks (south of Lindbrook Dr.)
Westwood Blvd.	Arterial	Le Conte Ave. to Massachusetts Ave. (approx. 5,000 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade, New or Improved Sidewalks	Bicycle-friendly Intersections (at Weyburn Ave., Lindbrook Dr., Wilshire Blvd., Rochester Ave., Ohio Ave.), Wayfinding (at Kinross Ave.)
Le Conte Ave.	Collector	Gayley Ave. to Weyburn Ave. (approx. 2,800 LF)	Bus Stop Improvements, Wayfinding Signage, Pedestrian & Bicycle Lighting, Bulb-outs	Bicycle-friendly Intersections (at Gayley Ave., Broxton Ave., Tiverton Ave., Hilgard Ave.), New or Improved Crosswalks (at Hilgard Ave., east of Gayley Ave.), Landscaping & Shade (near Westwood Blvd.)
Lindbrook Dr.	Collector	Galey Ave. to Manning Ave. (approx. 3,000 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting	Bicycle-friendly Intersections (at Gayley Ave., Hilgard Ave., Tiverton Ave., Westwood Blvd.), New or Improved Crosswalks (at Tiverton Ave., Hilgard Ave.), Wayfinding Signage (at Hilgard Ave.)
Weyburn Ave.	Collector	Weyburn Pl. to Gayley Ave. (approx. 2,000 LF)	Pedestrian and Bicycle Lighting, Traffic Calming, Street Furniture	Bicycle friendly Intersections (at Gayley Ave., Westwood Blvd., Tiverton Ave.), New or Improved Crosswalks (Gayley Ave.)
Broxton Ave.	Collector	Le Conte Ave. to Kinross Ave. (approx. 1,200 LF)	Bicycle Facilities, Traffic Calming	Bicycle friendly Intersections (at Le Conte Ave), New or Improved Crosswalk (at Le Conte Ave.) Wayfinding Signage (at Kinross Ave.)
Rochester Ave	N/A (Bicycle Facility Only)	Veteran Ave. to Manning Ave. (approx. 3,400 LF)	Bicycle Facilities	Bicycle-friendly Intersections (at Veteran Ave., Midvale Ave., Westwood Blvd.), New or Improved Crosswalk (at Veteran Ave.), Wayfinding Signage (at Veteran Ave., Midvale Ave.)
Ohio Ave.	Collector	405 Freeway to Selby Ave. (approx. 3,900 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Landscaping & Shade	Bicycle-friendly Intersections (at Kelton Ave., Westwood Blvd.)
Veteran Ave.	Collector	North Ln. to Rochester Ave. (approx. 3,400 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Landscaping & Shade, Traffic Calming	Bicycle-friendly Intersections (at Weyburn Ave., Kinross Ave., Wilshire Ave., Rochester Ave.), New or Improved Crosswalk (at Rochester Ave.), Bus Stop Improvements (south of Wilshire Blvd.), New or Improved Sidewalks (between Rochester Ave. and Wilkins Ave.), Wayfinding Signage (at Rochester Ave.)
Midvale/Kelton Ave.	Collector	Wilshire Blvd. to Massachusetts Ave. (approx. 3,000 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Bulb-outs	Bicycle-friendly Intersections (at Wilshire Blvd., Rochester Ave., Ohio Ave.), Bus Stop Improvements (south of Wilshire Blvd.), Wayfinding Signage (at Rochester Ave.)
Hilgard Ave.	Collector	Le Conte Ave. to Lindbrook Dr. (approx. 1,400 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting	Bicycle-friendly Intersections (at Le Conte Ave., Weyburn Ave. Lindbrook Dr.), New or Improved Crosswalks (at Le Conte Ave., Lindbrook Dr.), Wayfinding Signage (at Lindbrook Dr.)
Malcolm Ave.	Collector	Wilshire Blvd. to Ohio Ave. (approx. 1,800 LF)	Bicycle Facilities, New or Improved Crosswalks, Landscaping & Shade, Bulb-Outs	N/A
Weyburn Pl.	Collector	Strathmore Dr. to Wilshire Blvd. (approx. 2,700 LF)	Bicycle Facilities, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Landscaping & Shade	N/A
Tiverton Ave.	Collector	Le Conte Ave. to Lindbrook Dr. (approx. 1,400 LF)	Pedestrian & Bicycle Lighting, Landscaping & Shade	Bicycle friendly Intersections (at Le Conte Ave., Lindbrook Dr.), New or Improved Crosswalks (at Lindbrook Dr.)
Westwood Recreation Center Cut-through	Cut-through	N/A	Assumes pedestrian pathway improvements, e.g. lighting, signage, and enhanced paving.	N/A
Federal Building Cut-through	Cut-through	N/A	Assumes pedestrian pathway improvements, e.g. lighting, signage, and enhanced paving.	N/A

PROJECT LIST

WESTWOOD/VA HOSPITAL STATION

Project	Description	Extents	Proposed Corridor Improvements	Proposed Spot Improvements
Wilshire Blvd.	Arterial	Barrington Ave. to 405 Freeway (approx. 3,900 LF)	New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Veteran Ave.), Bus Stop Improvements (at Bonsall Ave.), Bicycle Hub (at station), Pedestrian & Bicycle Lighting (adjacent to 405 Freeway)
Ohio Ave.	Collector	Barrington Ave. to Veteran Ave. (approx. 5,000 LF)	Bicycle Facilities, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Landscaping & Shade	Bicycle-friendly Intersections (at Sawtelle Blvd.)
Federal Ave./San Vicente Blvd./Bringham Ave.	Collector	New Pershing Ave. to Ohio Ave. (approx. 4,000 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Bringham Ave.), New or Improved Crosswalks (Bringham Ave.)
Veteran Ave.	Collector	North Ln. to Rochester Ave. (approx. 3,400 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Landscaping & Shade, Traffic Calming	Bicycle-friendly Intersections (at Weyburn Ave., Kinross Ave., Wilshire Ave., Rochester Ave.), Bus Stop Improvements (south of Wilshire Blvd.), New or Improved Sidewalks (between Rochester Ave. and Wilkins Ave.), Wayfinding Signage (at Rochester Ave.)
Mayfield Ave.	Collector	San Vicente Blvd. to Bundy Dr. (approx 3,300 LF)	Bicycle Facilities, Pedestrian & Bicycle Lighting	Bicycle-friendly Intersections (at San Vicente Blvd.)
Sawtelle Blvd./Bonsall Ave.	Cut-through	Nimitz Ave. to Ohio Ave. (approx. 5,000 LF)	Bicycle Facilities, Bus Stop Improvements, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Ohio Ave., Eisenhower Ave., New Pershing Ave., Grant Ave.), Bicycle Hub (at station)
Constitution Ave.	Cut-through	New Pershing Ave. to Sepulveda Blvd. (approx. 1,700 LF)	Bicycle Facilities, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Bonsall Ave.)
New Pershing Ave.	Cut-through	Bringham Ave. to New Pershing Ave. (approx. 1,500 LF)	Bicycle Facilities, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Bonsall Ave.)
Grant Ave.	Cut-through	Bonsall Ave. to Dewey Ave. (approx. 1,100 LF)	New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade, Bulb-outs	N/A
Eisenhower Ave.	Cut-through	Bringham Ave. to Davis Ave. (approx. 2,300 LF)	Bicycle Facilities, New or Improved Crosswalks, Pedestrian & Bicycle Lighting, Street Furniture, Wayfinding Signage, Landscaping & Shade	Bicycle-friendly Intersections (at Bonsall Ave.)
Davis Ave.	Cut-through	Constitution Ave. to Eisenhower Ave. (approx. 1,300 LF)	Bicycle Facilities, New or Improved Crosswalks, New or Improved Sidewalks, Pedestrian & Bicycle Lighting, Wayfinding Signage, Landscaping & Shade	N/A
Westwood Recreation Center Cut-through	Cut-through	N/A	Assumes pedestrian pathway improvements, e.g. lighting, signage, enhanced paving, and multi-use path on Sepulveda to connect to Ohio Ave.	N/A
Federal Building Cut-through	Cut-through	N/A	Assumes pedestrian pathway improvements, e.g. lighting, signage, and enhanced paving.	N/A

Next stop: connected communities.

ROUGH-ORDER-OF-MAGNITUDE (ROM) COST ESTIMATION

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

Purple Line Extension Sections 2&3

First/Last Mile Plan, Rough-Order-of-Magnitude (ROM) Cost Estimation

This document details the cost estimates for pedestrian and bicyclist improvements within a half-mile radius of each of the four Purple Line Extension Sections 2 & 3 station areas. The cost estimates are presented by street segment on a station-by-station basis for both pedestrian improvements and bicycle improvements. A summary table for all walking and bicycling improvement costs is presented for each of the four stations.

The station areas for the Westwood/ UCLA Station and the Westwood/ VA Hospital station overlap for a small portion near the 405 Freeway and Veteran Avenue. To avoid duplicating costs estimates for Veteran Avenue, costs for this street segment have only been shown for the Westwood/ UCLA Station.

All streets that have either a pedestrian improvement or bicyclist improvement within the four station areas are shown in the ROM Cost Estimation sheet. Streets that have pedestrian improvements but no bicyclist improvements, or vice versa, are shown in both pedestrian and bicyclist sections for consistency and uniformity purposes.

Item Description	QTY	Unit	Amount		TOTAL AMOUNT
			Unit Cost	Amount	Amount
FTA SCC-50 CONSTRUCTION COSTS					
Metro Estimating Parametric					
Wilshire Boulevard	1	Ls	\$	4,954,450.00	\$ 4,954,450.00
Beverly Drive	1	Ls	\$	2,468,940.00	\$ 2,468,940.00
Santa Monica Boulevard	1	Ls	\$	1,257,700.00	\$ 1,257,700.00
S. Santa Monica Boulevard	1	Ls	\$	2,030,400.00	\$ 2,030,400.00
Burton Way	1	Ls	\$	1,140,000.00	\$ 1,140,000.00
Clifton Way	1	Ls	\$	974,800.00	\$ 974,800.00
Charleville Boulevard	1	Ls	\$	2,020,300.00	\$ 2,020,300.00
Rodeo Drive	1	Ls	\$	738,900.00	\$ 738,900.00
Reeves Drive	1	Ls	\$	329,450.00	\$ 329,450.00
Canon Drive	1	Ls	\$	141,900.00	\$ 141,900.00
Crescent Drive	1	Ls	\$	1,802,672.73	\$ 1,802,672.73
Roxbury Drive	1	Ls	\$	38,850.00	\$ 38,850.00
Metro Factor			\$	17,898,362.73	\$ 894,918.14
Construction Sub-Total					\$ 18,793,280.86
FTA SCC 80 SOFT COSTS					
EIR/EIS Planning			\$	18,793,280.86	\$ 375,865.62
Design Production Files			\$	18,793,280.86	\$ 93,966.40
Preliminary Engineering			\$	18,793,280.86	\$ 902,077.48
Final Design Services			\$	18,793,280.86	\$ 1,522,255.75
Project Management for Design and Construction			\$	18,793,280.86	\$ 1,841,741.52
Construction Administration and Management			\$	18,793,280.86	\$ 902,077.48
Professional Liability & Other Non-Construction Insurance			\$	18,793,280.86	\$ 563.80
Legal, Permits, Review Fees by Other Agencies, Cities, and etc.			\$	18,793,280.86	\$ 695,351.39
Surveys, Testing, Investigation and Inspection			\$	18,793,280.86	\$ 37,586.56
Startup			\$	18,793,280.86	\$ 300,692.49
Project Cost Sub-Total					\$ 25,465,459.37
FTA SCC 90 PROJECT CONTINGENCY					
Unallocated			\$	25,465,459.37	\$ 2,546,545.94
Project Cost					\$ 28,012,005.31
ESCALATION					
2019 Cost			\$	28,012,005.31	\$ 2,389,424.05
	Total	1 RM			\$ 30,401,429.36
2021 Cost			\$	30,401,429.36	\$ 37,241.75
	Total				\$ 30,438,671.11

Purple Line Extension Section 2&3 Cost Estimates

Wilshire / Rodeo Station - Pedestrian

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Wilshire Boulevard (Linden Dr. to Wetherly Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	19	EA	\$ 45,000	\$ 855,000	
Trees/Landscaping	17	BLOCK	\$ 40,000	\$ 680,000	
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
On all legs	14	EA	\$ 4,500	\$ 63,000	
New or Improved Crosswalks (Unsignalized Intersections)	12	EA	\$ 4,500	\$ 54,000	
Pedestrian & Bicycle Lighting	116	EA	\$ 10,000	\$ 1,160,000	
Street Furniture	58	EA	\$ 3,000	\$ 174,000	
Wayfinding Signs	18	EA	\$ 900	\$ 16,200	
PROJECT SUB-TOTAL					\$ 3,004,450.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Beverly Drive (Park Way to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	8	EA	\$ 120,000	\$ 960,000	
Bus Stop Improvements	9	EA	\$ 45,000	\$ 405,000	
New or Improved Crosswalks (Signalized Intersections)					
On all legs	8	EA	\$ 4,500	\$ 36,000	
New or Improved Sidewalks	16,080	SF	\$ 13	\$ 209,040	
Street Furniture	52	EA	\$ 3,000	\$ 156,000	
Wayfinding Signs	16	EA	\$ 900	\$ 14,400	
PROJECT SUB-TOTAL					\$ 1,782,440.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Santa Monica Boulevard (Bedford Dr. to N. Alpine Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	6	EA	\$ 45,000	\$ 270,000	
Trees/Landscaping	7	BLOCK	\$ 40,000	\$ 280,000	
New or Improved Crosswalks (Signalized Intersections) On all legs	7	EA	\$ 4,500	\$ 31,500	
New or Improved Crosswalks (Unsignalized Intersections)	2	EA	\$ 4,500	\$ 9,000	
Pedestrian & Bicycle Lighting	56	EA	\$ 10,000	\$ 560,000	
Wayfinding Signs	8	EA	\$ 900	\$ 7,200	
PROJECT SUB-TOTAL					\$ 1,157,700.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: S. Santa Monica Boulevard (Roxbury Dr. to Rexford Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	7	BLOCK	\$ 40,000	\$ 280,000	
New or Improved Crosswalks (Signalized Intersections) On all legs	8	EA	\$ 4,500	\$ 36,000	
Pedestrian & Bicycle Lighting	60	EA	\$ 10,000	\$ 600,000	
Street Furniture	30	EA	\$ 3,000	\$ 90,000	
Traffic Calming (Bulb Outs at Signalized Intersections)	8	EA	\$ 120,000	\$ 960,000	
Wayfinding Signs	10	EA	\$ 900	\$ 9,000	
PROJECT SUB-TOTAL					\$ 1,975,000.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Burton Way (Rexford Dr. to Oakhurst Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	6	EA	\$ 45,000	\$ 270,000	
New or Improved Crosswalks (Signalized Intersections) On all legs	4	EA	\$ 4,500	\$ 18,000	
New or Improved Crosswalks (Unsignalized Intersections)	8	EA	\$ 4,500	\$ 36,000	
Pedestrian & Bicycle Lighting	50	EA	\$ 10,000	\$ 500,000	
Wayfinding Signs	10	EA	\$ 900	\$ 9,000	
PROJECT SUB-TOTAL			\$ 833,000.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Clifton Way (Canon Dr. to Doheny Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
Pedestrian & Bicycle Lighting	55	EA	\$ 10,000	\$ 550,000	
Wayfinding Signs	2	EA	\$ 900	\$ 1,800	
PROJECT SUB-TOTAL			\$ 676,300.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Charleville Boulevard (McCarty Dr. to Doheny Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	2	EA	\$ 120,000	\$ 240,000	
New or Improved Crosswalks (Signalized Intersections) On all legs	2	EA	\$ 4,500	\$ 9,000	
New or Improved Crosswalks (Unsignalized Intersections) On main street legs	2	EA	\$ 2,250	\$ 4,500	
On all legs	15	EA	\$ 4,500	\$ 67,500	
Pedestrian & Bicycle Lighting	104	EA	\$ 10,000	\$ 1,040,000	
Wayfinding Signs	17	EA	\$ 900	\$ 15,300	
PROJECT SUB-TOTAL			\$ 1,376,300.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Rodeo Drive (Santa Monica Blvd. to Charleville Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 4,500	\$ 4,500	
New or Improved Crosswalks (Unsignalized Intersections)					
On all legs	1	EA	\$ 4,500	\$ 4,500	
Pedestrian & Bicycle Lighting	72	EA	\$ 10,000	\$ 720,000	
Wayfinding Signs	11	EA	\$ 900	\$ 9,900	
PROJECT SUB-TOTAL					\$ 738,900.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Reeves Drive (Wilshire Blvd. to Gregory Way)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
New or Improved Crosswalks (Unsignalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
On all legs	1	EA	\$ 4,500	\$ 4,500	
Pedestrian & Bicycle Lighting	16	EA	\$ 10,000	\$ 160,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 287,650.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Canon Drive (Santa Monica Blvd. to Wilshire Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections) On all legs	6	EA	\$ 4,500	\$ 27,000	
New or Improved Crosswalks (Unsignalized Intersections) On all legs	1	EA	\$ 4,500	\$ 4,500	
Street Furniture	25	EA	\$ 3,000	\$ 75,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 107,400.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Crescent Drive (Santa Monica Blvd. to Charleville Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	4	EA	\$ 120,000	\$ 480,000	
New or Improved Crosswalks (Signalized Intersections) On all legs	4	EA	\$ 4,500	\$ 18,000	
New or Improved Crosswalks (Unsignalized Intersections) On all legs	5	EA	\$ 4,500	\$ 22,500	
Pedestrian & Bicycle Lighting	112	EA	\$ 10,000	\$ 1,120,000	
Traffic Calming (Bulb Outs at Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
PROJECT SUB-TOTAL					\$ 1,760,500.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Pedestrian

Location: Roxbury Drive (Santa Monica Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
PROJECT SUB-TOTAL					\$ -

Purple Line Extension Section 2&3 Cost Estimates

Wilshire / Rodeo Station - Bicyclist

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Wilshire Boulevard (Linden Dr. to Wetherly Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Hub	1	EA	\$ 1,800,000	\$ 1,800,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 1,950,000.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Beverly Drive (Park Way to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.97	MI	\$ 450,000	\$ 436,500	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
On all legs	2	EA	\$ 100,000	\$ 200,000	
PROJECT SUB-TOTAL					\$ 686,500.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Santa Monica Boulevard (Bedford Dr. to N. Alpine Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 100,000.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: S. Santa Monica Boulevard (Roxbury Dr. to Rexford Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	9	EA	\$ 600	\$ 5,400	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
PROJECT SUB-TOTAL			\$ 55,400.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Burton Way (Rexford Dr. to Oakhurst Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.46	MI	\$ 450,000	\$ 207,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	2	EA	\$ 50,000	\$ 100,000	
PROJECT SUB-TOTAL			\$ 307,000.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Clifton Way (Canon Dr. to Doheny Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	2,700	FT	\$ 55	\$ 148,500	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL			\$ 298,500.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Charleville Boulevard (McCarty Dr. to Doheny Dr.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.97	MI	\$ 200,000	\$ 194,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	3	EA	\$ 50,000	\$ 150,000	
On all legs	3	EA	\$ 100,000	\$ 300,000	
PROJECT SUB-TOTAL					\$ 644,000.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Rodeo Drive (Santa Monica Blvd. to Charleville Blvd.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
PROJECT SUB-TOTAL					\$ -

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Reeves Drive (Wilshire Blvd. to Gregory Way)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	760	FT	\$ 55	\$ 41,800	
PROJECT SUB-TOTAL					\$ 41,800.00

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Canon Drive (Santa Monica Blvd. to Wilshire Blvd.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.46	MI	\$ 75,000	\$ 34,500	
PROJECT SUB-TOTAL			\$ 34,500.00		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Crescent Drive (Santa Monica Blvd. to Charleville Blvd.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	4	EA	\$ 600	\$ 2,400	
Bicycle Lane	0.53	MI	\$ 75,000	\$ 39,773	
PROJECT SUB-TOTAL			\$ 42,172.73		

Purple Line Extension Section 2&3 Cost Estimates
 Wilshire / Rodeo Station - Bicyclist

Location: Roxbury Drive (Santa Monica Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-02-10

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	1	EA	\$ 600	\$ 600	
Bicycle Lane	0.51	MI	\$ 75,000	\$ 38,250	
PROJECT SUB-TOTAL			\$ 38,850.00		

Item Description	QTY	Unit	Amount		TOTAL AMOUNT
			Unit Cost	Amount	Amount
FTA SCC-50 CONSTRUCTION COSTS					
Metro Estimating Parametric					
Constellation Boulevard	1	Ls	\$ 4,097,300.00		\$ 4,097,300.00
Avenue of the Stars	1	Ls	\$ 2,710,000.00		\$ 2,710,000.00
Santa Monica Boulevard	1	Ls	\$ 2,160,550.00		\$ 2,160,550.00
Solar Way	1	Ls	\$ 1,125,700.00		\$ 1,125,700.00
Galaxy Way	1	Ls	\$ 908,200.00		\$ 908,200.00
Club View Drive	1	Ls	\$ 1,026,400.00		\$ 1,026,400.00
Century Park W	1	Ls	\$ 2,178,200.00		\$ 2,178,200.00
Century Park E	1	Ls	\$ 2,399,100.00		\$ 2,399,100.00
Moreno Drive	1	Ls	\$ 636,000.00		\$ 636,000.00
Spaulding Drive	1	Ls	\$ 429,800.00		\$ 429,800.00
Warnall Avenue/ Wilkins Avenue	1	Ls	\$ 99,760.00		\$ 99,760.00
Metro Factor			\$ 17,771,010.00	5%	\$ 888,550.50
Construction Sub-Total					\$ 18,659,560.50
FTA SCC 80 SOFT COSTS					
EIR/EIS Planning			\$ 18,659,560.50	2.0%	\$ 373,191.21
Design Production Files			\$ 18,659,560.50	0.5%	\$ 93,297.80
Preliminary Engineering			\$ 18,659,560.50	4.8%	\$ 895,658.90
Final Design Services			\$ 18,659,560.50	8.1%	\$ 1,511,424.40
Project Management for Design and Construction			\$ 18,659,560.50	9.8%	\$ 1,828,636.93
Construction Administration and Management			\$ 18,659,560.50	4.8%	\$ 895,658.90
Professional Liability & Other Non-Construction Insurance			\$ 18,659,560.50	0.003%	\$ 559.79
Legal, Permits, Review Fees by Other Agencies, Cities, and etc.			\$ 18,659,560.50	3.7%	\$ 690,403.74
Surveys, Testing, Investigation and Inspection			\$ 18,659,560.50	0.2%	\$ 37,319.12
Startup			\$ 18,659,560.50	1.6%	\$ 298,552.97
Project Cost Sub-Total					\$ 6,624,703.76
FTA SCC 90 PROJECT CONTINGENCY					
Unallocated			\$ 25,284,264.26	10.0%	\$ 2,528,426.43
Project Cost					\$ 27,812,690.69
ESCALATION					
2019 Cost			\$ 27,812,690.69	8.53%	\$ 2,372,422.52
	Total	1 RM			\$ 30,185,113.21
2021 Cost			\$ 30,185,113.21	0.12%	\$ 36,976.76
	Total				\$ 30,222,089.97

20-Mar-20

Purple Line Extension Section 2&3 Cost Estimates

Century City / Constellation Station - Pedestrian

Purple Line Extension Sections 2&3 Cost Estimates
Century City / Constellation Station - Pedestrian

Location: Constellation Boulevard (Century Park E to Century Park W)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	7	EA	\$ 45,000	\$	315,000
Trees/Landscaping	3	BLOCK	\$ 40,000	\$	120,000
New or Improved Crosswalks (Signalized Intersections) On all legs	4	EA	\$ 4,500	\$	18,000
New or Improved Sidewalks	33,000	SF	\$ 13	\$	429,000
Pedestrian & Bicycle Lighting	44	EA	\$ 10,000	\$	440,000
Traffic Calming (Bulb Outs at Signalized Intersections)	4	EA	\$ 120,000	\$	480,000
Wayfinding Signs	7	EA	\$ 900	\$	6,300
PROJECT SUB-TOTAL					\$ 1,808,300.00

Purple Line Extension Sections 2&3 Cost Estimates
Century City / Constellation Station - Pedestrian

Location: Avenue of the Stars (Santa Monica Bl to Pico Bl)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	2	EA	\$ 45,000	\$	90,000
Trees/Landscaping	5	BLOCK	\$ 40,000	\$	200,000
New or Improved Crosswalks (Signalized Intersections) On all legs	6	EA	\$ 4,500	\$	27,000
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$	4,500
Pedestrian & Bicycle Lighting	100	EA	\$ 10,000	\$	1,000,000
Street Furniture	50	EA	\$ 3,000	\$	150,000
Traffic Calming (Bulb Outs at Signalized Intersections)	6	EA	\$ 120,000	\$	720,000
Wayfinding Signs	15	EA	\$ 900	\$	13,500
PROJECT SUB-TOTAL					\$ 2,205,000.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Santa Monica Boulevard (Pandora Ave to Wilshire Bl)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	20	EA	\$ 45,000	\$	900,000
Trees/Landscaping	8	BLOCK	\$ 40,000	\$	320,000
New or Improved Crosswalks (Signalized Intersections)					
At Intersecting Corridor	1	EA	\$ 2,250	\$	2,250
On all legs	6	EA	\$ 4,500	\$	27,000
New or Improved Crosswalks (Unsignalized Intersections)	8	EA	\$ 4,500	\$	36,000
Wayfinding Signs	18	EA	\$ 900	\$	16,200
PROJECT SUB-TOTAL					\$ 1,301,450.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Solar Way (Century Park W to Constellation Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	1	BLOCK	\$ 40,000	\$	40,000
New or Improved Sidewalks (New)	15,550	SF	\$ 43	\$	668,650
New or Improved Sidewalks (Improved)	13,250	SF	\$ 13	\$	172,250
Pedestrian & Bicycle Lighting	24	EA	\$ 10,000	\$	240,000
Wayfinding Signs	4	EA	\$ 900	\$	3,600
PROJECT SUB-TOTAL					\$ 1,124,500.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Galaxy Way (Ave. of the Stars to Century Park E)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	2	BLOCK	\$ 40,000	\$	80,000
New or Improved Crosswalks (Signalized Intersections)					
On all legs	1	EA	\$ 4,500	\$	4,500
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$	4,500
New or Improved Sidewalks	38,400	SF	\$ 13	\$	499,200
Pedestrian & Bicycle Lighting	32	EA	\$ 10,000	\$	320,000
PROJECT SUB-TOTAL					\$ 908,200.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Club View Dr. (Rochester Ave to Santa Monica Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Sidewalks	48,000	SF	\$ 13	\$	624,000
Pedestrian & Bicycle Lighting	40	EA	\$ 10,000	\$	400,000
PROJECT SUB-TOTAL					\$ 1,024,000.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Century Park W. (Santa Monica Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On all legs	4	EA	\$ 4,500	\$	18,000
New or Improved Sidewalks	67,200	SF	\$ 13	\$	873,600
Pedestrian & Bicycle Lighting	56	EA	\$ 10,000	\$	560,000
Traffic Calming (Bulb Outs at Signalized Intersections)	4	EA	\$ 120,000	\$	480,000
Wayfinding Signs	9	EA	\$ 900	\$	8,100
PROJECT SUB-TOTAL					\$ 1,939,700.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Century Park E. (Santa Monica Blvd. to Pico Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	13	EA	\$ 45,000	\$	585,000
Trees/Landscaping	3	BLOCK	\$ 40,000	\$	120,000
New or Improved Crosswalks (Signalized Intersections)					
On all legs	3	EA	\$ 4,500	\$	13,500
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$	4,500
New or Improved Sidewalks	11,000	SF	\$ 43	\$	473,000
Pedestrian & Bicycle Lighting	60	EA	\$ 10,000	\$	600,000
Street Furniture	30	EA	\$ 3,000	\$	90,000
Wayfinding Signs	9	EA	\$ 900	\$	8,100
PROJECT SUB-TOTAL					\$ 1,894,100.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Moreno Dr. (S. Santa Monica Blvd. to Spaulding Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
On all legs	1	EA	\$ 4,500	\$ 4,500	
Pedestrian & Bicycle Lighting	36	EA	\$ 10,000	\$ 360,000	
Traffic Calming (Bulb Outs at Signalized Intersections)	2	EA	\$ 120,000	\$ 240,000	
Wayfinding Signs	5	EA	\$ 900	\$ 4,500	
PROJECT SUB-TOTAL					\$ 611,250.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Spaulding Dr. (Wilshire Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	1	EA	\$ 45,000	\$ 45,000	
Pedestrian & Bicycle Lighting	12	EA	\$ 10,000	\$ 120,000	
Traffic Calming (Bulb Outs at Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
Wayfinding Signs	2	EA	\$ 900	\$ 1,800	
PROJECT SUB-TOTAL					\$ 286,800.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Pedestrian

Location: Warnall Ave./ Wilkins Ave. (Beverly Glen Blvd. to Santa Monica Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
PROJECT SUB-TOTAL					\$ 4,500.00

Purple Line Extension Sections 2&3 Cost Estimates
Century City / Constellation Station - Bicyclist

Location: Constellation Boulevard (Century Park E to Century Park W)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.42	MI	\$ 450,000	\$ 189,000	
Bicycle Hub	1	EA	\$ 1,800,000	\$ 1,800,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	3	EA	\$ 100,000	\$ 300,000	
PROJECT SUB-TOTAL					\$ 2,289,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Century City / Constellation Station - Bicyclist

Location: Avenue of the Stars (Santa Monica Bl to Pico Bl)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.90	MI	\$ 450,000	\$ 405,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 505,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Century City / Constellation Station - Bicyclist

Location: Santa Monica Boulevard (Pandora Ave to Wilshire Bl)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	6	EA	\$ 600	\$ 3,600	
Protected Bicycle Lane (Striped Buffer)	0.79	MI	\$ 450,000	\$ 355,500	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	5	EA	\$ 100,000	\$ 500,000	
PROJECT SUB-TOTAL					\$ 859,100.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Solar Way (Century Park W to Constellation Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	2	EA	\$ 600	\$ 1,200	
PROJECT SUB-TOTAL					\$ 1,200.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Galaxy Way (Ave. of the Stars to Century Park E)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
PROJECT SUB-TOTAL					\$ -

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Club View Dr. (Rochester Ave to Santa Monica Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	4	EA	\$ 600	\$ 2,400	
PROJECT SUB-TOTAL					\$ 2,400.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Century Park W. (Santa Monica Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.53	MI	\$ 450,000	\$ 238,500	
PROJECT SUB-TOTAL					\$ 238,500.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Century Park E. (Santa Monica Blvd. to Pico Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.90	MI	\$ 450,000	\$ 405,000	
Bicycle-Friendly Intersections (at Signalized Intersections) On main street legs	2	EA	\$ 50,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 505,000.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Moreno Dr. (S. Santa Monica Blvd. to Spaulding Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.33	MI	\$ 75,000	\$ 24,750	
PROJECT SUB-TOTAL					\$ 24,750.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Spaulding Dr. (Wilshire Blvd. to Olympic Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	2,600	FT	\$ 55	\$ 143,000	
Bicycle-Friendly Intersections (at Signalized Intersections)	0	EA	\$ 27,000	\$ -	
PROJECT SUB-TOTAL					\$ 143,000.00

Purple Line Extension Sections 2&3 Cost Estimates
 Century City / Constellation Station - Bicyclist

Location: Warnall Ave./ Wilkins Ave. (Beverly Glen Blvd. to Santa Monica Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	1,732	FT	\$ 55	\$ 95,260	

Item Description	QTY	Unit	Amount		TOTAL AMOUNT
			Unit Cost	Amount	Amount
FTA SCC-50 CONSTRUCTION COSTS					
Metro Estimating Parametric					
Wilshire Boulevard	1	Ls	\$ 5,598,900.00		\$ 5,598,900.00
Gayley Avenue	1	Ls	\$ 2,566,022.73		\$ 2,566,022.73
Westwood Boulevard	1	Ls	\$ 4,464,536.36		\$ 4,464,536.36
Veteran Avenue	1	Ls	\$ 1,573,750.00		\$ 1,573,750.00
Le Conte Avenue	1	Ls	\$ 1,869,850.00		\$ 1,869,850.00
Lindbrook Drive	1	Ls	\$ 923,215.00		\$ 923,215.00
Weyburn Avenue	1	Ls	\$ 1,112,250.00		\$ 1,112,250.00
Broxton Avenue	1	Ls	\$ 367,800.00		\$ 367,800.00
Rochester Avenue	1	Ls	\$ 339,450.00		\$ 339,450.00
Ohio/Selby Avenue	1	Ls	\$ 1,014,605.00		\$ 1,014,605.00
Midvale/Kelton Avenue	1	Ls	\$ 967,900.00		\$ 967,900.00
Hilgard Avenue	1	Ls	\$ 305,286.36		\$ 305,286.36
Malcolm Avenue	1	Ls	\$ 444,900.00		\$ 444,900.00
Weyburn Place	1	Ls	\$ 1,369,200.00		\$ 1,369,200.00
Tiverton Avenue	1	Ls	\$ 362,250.00		\$ 362,250.00
Metro Factor			\$ 23,279,915.45	\$ 5%	\$ 1,163,995.77
Construction Sub-Total					\$ 24,443,911.23
FTA SCC 80 SOFT COSTS					
EIR/EIS Planning			\$ 24,443,911.23	\$ 2.0%	\$ 488,878.22
Design Production Files			\$ 24,443,911.23	\$ 0.5%	\$ 122,219.56
Preliminary Engineering			\$ 24,443,911.23	\$ 4.8%	\$ 1,173,307.74
Final Design Services			\$ 24,443,911.23	\$ 8.1%	\$ 1,979,956.81
Project Management for Design and Construction			\$ 24,443,911.23	\$ 9.8%	\$ 2,395,503.30
Construction Administration and Management			\$ 24,443,911.23	\$ 4.8%	\$ 1,173,307.74
Professional Liability & Other Non-Construction Insurance			\$ 24,443,911.23	\$ 0.003%	\$ 733.32
Legal, Permits, Review Fees by Other Agencies, Cities, and etc.			\$ 24,443,911.23	\$ 3.7%	\$ 904,424.72
Surveys, Testing, Investigation and Inspection			\$ 24,443,911.23	\$ 0.2%	\$ 48,887.82
Startup			\$ 24,443,911.23	\$ 1.6%	\$ 391,102.58
Project Cost Sub-Total					\$ 33,122,233.03
FTA SCC 90 PROJECT CONTINGENCY					
Unallocated			\$ 33,122,233.03	\$ 10.0%	\$ 3,312,223.30
Project Cost					\$ 36,434,456.33
ESCALATION					
2019 Cost			\$ 36,434,456.33	\$ 8.53%	\$ 3,107,859.13
			Total	1 RM	\$ 39,542,315.46
2021 Cost			\$ 39,542,315.46	\$ 0.12%	\$ 48,439.34
			Total		\$ 39,590,754.79

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Wilshire Boulevard (405 Freeway to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	13	EA	\$ 45,000	\$ 585,000	
Trees / Landscaping	7	BLOCK	\$ 40,000	\$ 280,000	
New or Improved Crosswalks (Signalized Intersections)					
On all legs	4	EA	\$ 4,500	\$ 18,000	
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
New or Improved Sidewalks	106,000		\$ 13	\$ 1,378,000	
Pedestrian & Bicycle Lighting	106	EA	\$ 10,000	\$ 1,060,000	
Street Furniture	53	EA	\$ 3,000	\$ 159,000	
Wayfinding Signs	16	EA	\$ 900	\$ 14,400	
PROJECT SUB-TOTAL					\$ 3,498,900.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Gayley Avenue (Charles E Young Dr. to Wilshire Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	6	EA	\$ 120,000	\$ 720,000	
Bus Stop Improvements	2	EA	\$ 45,000	\$ 90,000	
Trees / Landscaping	1	BLOCK	\$ 40,000	\$ 40,000	
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
On all legs	4	EA	\$ 4,500	\$ 18,000	
New or Improved Crosswalks (Unsignalized Intersections)	2	EA	\$ 4,500	\$ 9,000	
New or Improved Sidewalks	68,000		\$ 13	\$ 884,000	
Pedestrian & Bicycle Lighting	68	EA	\$ 3,000	\$ 204,000	
Wayfinding Signs	10	EA	\$ 900	\$ 9,000	
PROJECT SUB-TOTAL					\$ 1,976,250.00

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / UCLA Station - Pedestrian

Location: Westwood Boulevard (Le Conte Ave. to Massachusetts Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	16	EA	\$ 45,000	\$	720,000
Trees / Landscaping	10	BLOCK	\$ 40,000	\$	400,000
New or Improved Crosswalks (Signalized Intersections)					
On all legs	10	EA	\$ 4,500	\$	45,000
New or Improved Crosswalks (Unsignalized Intersections)	2	EA	\$ 4,500	\$	9,000
New or Improved Sidewalks	100,000		\$ 13	\$	1,300,000
Pedestrian & Bicycle Lighting	100	EA	\$ 10,000	\$	1,000,000
Street Furniture	50	EA	\$ 3,000	\$	150,000
Wayfinding Signs	16	EA	\$ 900	\$	14,400
PROJECT SUB-TOTAL					\$ 3,638,400.00

Purple Line Purple Line Extension Sections 2&3 Cost Estimates
 Westwood Westwood / UCLA Station - Pedestrian

Location: Veteran Avenue (Strathmore Dr. to Ohio Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	1	EA	\$ 45,000	\$	45,000
Trees/Landscaping	5	BLOCK	\$ 40,000	\$	200,000
New or Improved Crosswalks (Signalized Intersections)	3	EA	\$ 4,500	\$	13,500
Split with Intersecting Corridor					
Standalone (Not split)					
New or Improved Crosswalks (Unsignalized Intersections)	5	EA	\$ 4,500	\$	22,500
New or Improved Sidewalks	7,400	SF	\$ 13	\$	96,200
Pedestrian & Bicycle Lighting	68	EA	\$ 10,000	\$	680,000
Traffic Calming (Bulb Outs at Signalized Intersections)	3	EA	\$ 120,000	\$	360,000
Wayfinding Signs	2	EA	\$ 900	\$	1,800
PROJECT SUB-TOTAL					\$ 1,419,000.00

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / UCLA Station - Pedestrian

Location: Le Conte Avenue (Gayley Ave. to Weyburn Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	5	EA	\$ 120,000	\$	600,000
Bus Stop Improvements	7	EA	\$ 45,000	\$	315,000
Trees / Landscaping	2	BLOCK	\$ 40,000	\$	80,000
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$	2,250
On all legs	1	EA	\$ 4,500	\$	4,500
Pedestrian & Bicycle Lighting	56	EA	\$ 10,000	\$	560,000
Wayfinding Signs	9	EA	\$ 900	\$	8,100
PROJECT SUB-TOTAL					\$ 1,569,850.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Lindbrook Drive (Gayley Ave. to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
New or Improved Crosswalks (Unsignalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
Pedestrian & Bicycle Lighting	60	EA	\$ 10,000	\$ 600,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 605,400.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Weyburn Avenue (Weyburn Pl. to Hilgard Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
Pedestrian & Bicycle Lighting	40	EA	\$ 10,000	\$ 400,000	
Street Furniture	20	EA	\$ 3,000	\$ 60,000	
Traffic Calming (Bulb Outs at Signalized Intersections)	5	EA	\$ 120,000	\$ 600,000	
PROJECT SUB-TOTAL					\$ 1,062,250.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Broxton Avenue (Le Conte Ave. to Kinross Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On all legs	1	EA	\$ 4,500	\$ 4,500	
Traffic Calming (Bulb Outs at Signalized Intersections)	3	EA	\$ 120,000	\$ 360,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 365,400.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Rochester Avenue (Veteran Ave. to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Unsignalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
Wayfinding Signs	2	EA	\$ 900	\$ 1,800	
PROJECT SUB-TOTAL					\$ 6,300.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Ohio Avenue / Selby Avenue (Sepuvleda Blvd to Rochester Ave)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees / Landscaping	5	BLOCK	\$ 40,000	\$ 200,000	
New or Improved Crosswalks (Signalized Intersections)					
On all legs	2	EA	\$ 4,500	\$ 9,000	
New or Improved Crosswalks (Unsignalized Intersections)	5	EA	\$ 4,500	\$ 22,500	
Pedestrian & Bicycle Lighting	39	EA	\$ 10,000	\$ 390,000	
PROJECT SUB-TOTAL					\$ 621,500.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Midvale/Kelton Avenue (Wilshire Blvd. to Massachusetts Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
Bus Stop Improvements	1	EA	\$ 45,000	\$ 45,000	
New or Improved Crosswalks (Signalized Intersections)					
On all legs	1	EA	\$ 4,500	\$ 4,500	
New or Improved Crosswalks (Unsignalized Intersections)	6	EA	\$ 4,500	\$ 27,000	
Pedestrian & Bicycle Lighting	60	EA	\$ 10,000	\$ 600,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 797,400.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Hilgard Avenue (Le Conte Ave. to Lindbrook Dr.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
New or Improved Crosswalks (Unsignalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
Pedestrian & Bicycle Lighting	28	EA	\$ 10,000	\$ 280,000	
Wayfinding Signs	1	EA	\$ 900	\$ 900	
PROJECT SUB-TOTAL					\$ 285,400.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Malcolm Avenue (Wilshire Blvd. to Ohio Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
Trees / Landscaping	5	BLOCK	\$ 40,000	\$ 200,000	
New or Improved Crosswalks (Unsignalized Intersections)	6	EA	\$ 4,500	\$ 27,000	
PROJECT SUB-TOTAL					\$ 347,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Weyburn Place (Strathmore Dr. to Wilshire Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees / Landscaping	3	BLOCK	\$ 40,000	\$ 120,000	
New or Improved Sidewalks	54,000		\$ 13	\$ 702,000	
Pedestrian & Bicycle Lighting	54	EA	\$ 10,000	\$ 540,000	
PROJECT SUB-TOTAL					\$ 1,362,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Pedestrian

Location: Tiverton Avenue (Le Conte Ave. to Lindbrook Dr.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees / Landscaping	2	BLOCK	\$ 40,000	\$ 80,000	
New or Improved Crosswalks (Signalized Intersections)					
On main street legs	1	EA	\$ 2,250	\$ 2,250	
Pedestrian & Bicycle Lighting	28	EA	\$ 10,000	\$ 280,000	
PROJECT SUB-TOTAL					\$ 362,250.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Wilshire Boulevard (405 Freeway to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Hub	1	EA	\$ 1,800,000	\$ 1,800,000	
Bicycle-Friendly Intersections (at Signalized Intersections) On all legs	3	EA	\$ 100,000	\$ 300,000	
PROJECT SUB-TOTAL					\$ 2,100,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Gayley Avenue (Charles E Young Dr. to Wilshire Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.644	MI	\$ 450,000	\$ 289,773	
Bicycle-Friendly Intersections (at Signalized Intersections) On all legs	3	EA	\$ 100,000	\$ 300,000	
PROJECT SUB-TOTAL					\$ 589,772.73

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Westwood Boulevard (Le Conte Ave. to Massachusetts Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.947	MI	\$ 450,000	\$ 426,136	
Bicycle-Friendly Intersections (at Signalized Intersections) On all legs	4	EA	\$ 100,000	\$ 400,000	
PROJECT SUB-TOTAL					\$ 826,136.36

Purple Line Purple Line Extension Sections 2&3 Cost Estimates
Westwood Westwood / UCLA Station - Bicyclist

Location: Veteran Avenue (Strathmore Dr. to Ohio Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.730	MI	\$ 75,000	\$ 54,750	
Bicycle-Friendly Intersections (at Signalized Intersections) On main street legs	2	EA	\$ 50,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 154,750.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Le Conte Avenue (Gayley Ave. to Weyburn Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	3	EA	\$ 100,000	\$ 300,000	
PROJECT SUB-TOTAL			\$ 300,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Lindbrook Drive (Galey Ave. to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	1858	FT	\$ 55	\$ 102,190	
Bicycle Lane	0.208	MI	\$ 75,000	\$ 15,625	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	2.000	EA	\$ 100,000	\$ 200,000	
PROJECT SUB-TOTAL			\$ 317,815.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Weyburn Avenue (Weyburn Pl. to Hilgard Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
PROJECT SUB-TOTAL			\$ 50,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Broxton Avenue (Le Conte Ave. to Kinross Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	4	EA	\$ 600	\$ 2,400	
PROJECT SUB-TOTAL			\$ 2,400.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Rochester Avenue (Veteran Ave. to Manning Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	3330	FT	\$ 55	\$ 183,150	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 333,150.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Ohio Avenue/ Selby Avenue (Sepulveda Blvd. to Rochester Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	1811	FT	\$ 55	\$ 99,605	
Protected Bicycle Lane (Striped Buffer)	0.43	MI	\$ 450,000	\$ 193,500	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL					\$ 393,105.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Midvale/Kelton Avenue (Wilshire Blvd. to Massachusetts Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	3100	FT	\$ 55	\$ 170,500	
PROJECT SUB-TOTAL					\$ 170,500.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / UCLA Station - Bicyclist

Location: Hilgard Avenue (Le Conte Ave. to Lindbrook Dr.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.265	MI	\$ 75,000	\$ 19,886	
PROJECT SUB-TOTAL					\$ 19,886.36

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / UCLA Station - Bicyclist

Location: Malcolm Avenue (Wilshire Blvd. to Ohio Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Boulevard	1780	FT	\$ 55	\$ 97,900	
PROJECT SUB-TOTAL					\$ 97,900.00

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / UCLA Station - Bicyclist

Location: Weyburn Place (Strathmore Dr. to Wilshire Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	12	EA	\$ 600	\$ 7,200	
PROJECT SUB-TOTAL					\$ 7,200.00

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / UCLA Station - Bicyclist

Location: Tiverton Avenue (Le Conte Ave. to Lindbrook Dr.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
PROJECT SUB-TOTAL					\$ -

Item Description	QTY	Unit	Amount		TOTAL AMOUNT
			Unit Cost	Amount	Amount
FTA SCC-50 CONSTRUCTION COSTS					
Metro Estimating Parametric					
Wilshire Boulevard	1	Ls	\$ 2,858,300.00		\$ 2,858,300.00
Ohio Avenue	1	Ls	\$ 3,002,000.00		\$ 3,002,000.00
Federal Avenue/San Vicente Boulevard/ Brigham Avenue	1	Ls	\$ 1,348,700.00		\$ 1,348,700.00
Mayfield Avenue	1	Ls	\$ 666,000.00		\$ 666,000.00
Sawtelle Boulevard/ Bonsall Avenue	1	Ls	\$ 3,464,263.26		\$ 3,464,263.26
Constitution Avenue	1	Ls	\$ 1,714,447.73		\$ 1,714,447.73
New Pershing Avenue	1	Ls	\$ 1,883,306.82		\$ 1,883,306.82
Grant Avenue	1	Ls	\$ 710,700.00		\$ 710,700.00
Eisenhower Avenue	1	Ls	\$ 639,300.00		\$ 639,300.00
Davis Avenue	1	Ls	\$ 1,437,500.00		\$ 1,437,500.00
Metro Factor			\$ 17,724,517.80	5%	\$ 886,225.89
Construction Sub-Total					\$ 18,610,743.69
FTA SCC 80 SOFT COSTS					
EIR/EIS Planning			\$ 18,610,743.69	2.0%	\$ 372,214.87
Design Production Files			\$ 18,610,743.69	0.5%	\$ 93,053.72
Preliminary Engineering			\$ 18,610,743.69	4.8%	\$ 893,315.70
Final Design Services			\$ 18,610,743.69	8.1%	\$ 1,507,470.24
Project Management for Design and Construction			\$ 18,610,743.69	9.8%	\$ 1,823,852.88
Construction Administration and Management			\$ 18,610,743.69	4.8%	\$ 893,315.70
Professional Liability & Other Non-Construction Insurance			\$ 18,610,743.69	0.003%	\$ 558.32
Legal, Permits, Review Fees by Other Agencies, Cities, and etc.			\$ 18,610,743.69	3.7%	\$ 688,597.52
Surveys, Testing, Investigation and Inspection			\$ 18,610,743.69	0.2%	\$ 37,221.49
Startup			\$ 18,610,743.69	1.6%	\$ 297,771.90
Project Cost Sub-Total					\$ 6,607,372.33
FTA SCC 90 PROJECT CONTINGENCY					
Unallocated			\$ 25,218,116.03	10.0%	\$ 2,521,811.60
Project Cost					\$ 27,739,927.63
ESCALATION					
2019 Cost			\$ 27,739,927.63	8.53%	\$ 2,366,215.83
			Total	1 RM	\$ 30,106,143.46
2021 Cost			\$ 30,106,143.46	0.12%	\$ 36,127.37
			Total		\$ 30,142,270.83

Purple Line Extension Section 2&3 Cost Estimates

Westwood / VA Hospital Station - Pedestrian

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Wilshire Boulevard (Barrington Ave. to 405 Freeway)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	1	EA	\$ 45,000	\$ 45,000	
Trees/Landscaping	4	BLOCK	\$ 40,000	\$ 160,000	
New or Improved Crosswalks (Signalized Intersections)	2	EA	\$ 4,500	\$ 9,000	
New or Improved Crosswalks (Unsignalized Intersections)	3	EA	\$ 4,500	\$ 13,500	
Pedestrian & Bicycle Lighting	82	EA	\$ 10,000	\$ 820,000	
Wayfinding Signs	12	EA	\$ 900	\$ 10,800	
PROJECT SUB-TOTAL					\$ 1,058,300.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Ohio Avenue (Barrington Ave. to Sepulveda Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	13	BLOCK	\$ 40,000	\$ 520,000	
New or Improved Crosswalks (Signalized Intersections)	5	EA	\$ 4,500	\$ 22,500	
New or Improved Crosswalks (Unsignalized Intersections)	11	EA	\$ 4,500	\$ 49,500	
New or Improved Sidewalks	90,000	SF	\$ 13	\$ 1,170,000	
Pedestrian & Bicycle Lighting	100	EA	\$ 10,000	\$ 1,000,000	
PROJECT SUB-TOTAL					\$ 2,762,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Federal Avenue/San Vicente Boulevard/ Brigham Avenue
(New Pershing Ave. to Ohio Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	5	BLOCK	\$ 40,000	\$ 200,000	
New or Improved Crosswalks (Signalized Intersections)	2	EA	\$ 4,500	\$ 9,000	
New or Improved Crosswalks (Unsignalized Intersections)	8	EA	\$ 4,500	\$ 36,000	
Pedestrian & Bicycle Lighting	80	EA	\$ 10,000	\$ 800,000	
Wayfinding Signs	12	EA	\$ 900	\$ 10,800	
PROJECT SUB-TOTAL					\$ 1,055,800.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Mayfield Avenue (Bundy Dr. to San Vicente Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Pedestrian & Bicycle Lighting	66	EA	\$ 10,000	\$ 660,000	
PROJECT SUB-TOTAL					\$ 660,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Sawtelle Boulevard/ Bonsall Avenue (Nimitz Ave. to Ohio Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bus Stop Improvements	4	EA	\$ 45,000	\$ 180,000	
Trees/Landscaping	6	BLOCK	\$ 40,000	\$ 240,000	
New or Improved Crosswalks (Signalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
New or Improved Crosswalks (Unsignalized Intersections)	7	EA	\$ 4,500	\$ 31,500	
New or Improved Sidewalks	65,000	SF	\$ 13	\$ 845,000	
Pedestrian & Bicycle Lighting	100	EA	\$ 10,000	\$ 1,000,000	
Street Furniture	50	EA	\$ 3,000	\$ 150,000	
Wayfinding Signs	15	EA	\$ 900	\$ 13,500	
PROJECT SUB-TOTAL					\$ 2,464,500.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Constitution Avenue (Bonsall Ave. to Sepulveda Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	2	BLOCK	\$ 40,000	\$ 80,000	
New or Improved Crosswalks (Signalized Intersections)	1	EA	\$ 4,500	\$ 4,500	
New or Improved Crosswalks (Unsignalized Intersections)	3	EA	\$ 4,500	\$ 13,500	
New or Improved Sidewalks (New)	26,860	SF	\$ 43	\$ 1,154,980	
New or Improved Sidewalks (Improved)	7,140	SF	\$ 13	\$ 92,820	
Pedestrian & Bicycle Lighting	34	EA	\$ 10,000	\$ 340,000	
Wayfinding Signs	5	EA	\$ 900	\$ 4,500	
PROJECT SUB-TOTAL					\$ 1,690,300.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: New Pershing Avenue (Bringham Ave. to Bonsall Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	5	BLOCK	\$ 40,000	\$ 200,000	
New or Improved Crosswalks (Unsignalized Intersections)	5	EA	\$ 4,500	\$ 22,500	
New or Improved Sidewalks	30,000	SF	\$ 43	\$ 1,290,000	
Pedestrian & Bicycle Lighting	30	EA	\$ 10,000	\$ 300,000	
Street Furniture	15	EA	\$ 3,000	\$ 45,000	
Wayfinding Signs	5	EA	\$ 900	\$ 4,500	
PROJECT SUB-TOTAL					\$ 1,862,000.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Grant Avenue (Bonsall Ave. to Dewey Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bulb-Outs (Signalized Intersections)	1	EA	\$ 120,000	\$ 120,000	
Trees/Landscaping	1	BLOCK	\$ 40,000	\$ 40,000	
New or Improved Crosswalks (Unsignalized Intersections)	2	EA	\$ 4,500	\$ 9,000	
New or Improved Sidewalks	22,000	SF	\$ 13	\$ 286,000	
Pedestrian & Bicycle Lighting	22	EA	\$ 10,000	\$ 220,000	
Street Furniture	11	EA	\$ 3,000	\$ 33,000	
Wayfinding Signs	3	EA	\$ 900	\$ 2,700	
PROJECT SUB-TOTAL					\$ 710,700.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Pedestrian

Location: Eisenhower Avenue (Bringham Ave. to Davis Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	2	BLOCK	\$ 40,000	\$ 80,000	
New or Improved Crosswalks (Unsignalized Intersections)	4	EA	\$ 4,500	\$ 18,000	
Pedestrian & Bicycle Lighting	46	EA	\$ 10,000	\$ 460,000	
Street Furniture	23	EA	\$ 3,000	\$ 69,000	
Wayfinding Signs	7	EA	\$ 900	\$ 6,300	
PROJECT SUB-TOTAL					\$ 633,300.00

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Pedestrian

Location: Davis Avenue (Constitution Ave. to Eisenhower Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Trees/Landscaping	1	BLOCK	\$ 40,000	\$ 40,000	
New or Improved Crosswalks (Unsignalized Intersections)	3	EA	\$ 4,500	\$ 13,500	
New or Improved Sidewalks	26,000	SF	\$ 43	\$ 1,118,000	
Pedestrian & Bicycle Lighting	26	EA	\$ 10,000	\$ 260,000	
Wayfinding Signs	4	EA	\$ 900	\$ 3,600	
PROJECT SUB-TOTAL					\$ 1,435,100.00

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Bicyclist

Location: Wilshire Boulevard (Barrington Ave. to 405 Freeway)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Hub	1	EA	\$ 1,800,000	\$ 1,800,000	
PROJECT SUB-TOTAL			\$ 1,800,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Bicyclist

Location: Ohio Avenue (Barrington Ave. to Sepulveda Blvd.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Protected Bicycle Lane (Striped Buffer)	0.700	MI	\$ 200,000	\$ 140,000	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs		EA	\$ 50,000	\$ -	
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL			\$ 240,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
Westwood / VA Hospital Station - Bicyclist

Location: Federal Avenue/San Vicente Boulevard/ Bringham Avenue
(New Pershing Ave. to Ohio Ave.)

Prepared By: ESS
Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	4	EA	\$ 600	\$ 2,400	
Bicycle Lane	0.440	MI	\$ 75,000	\$ 33,000	
Protected Bicycle Lane (Striped Buffer)	0.350	MI	\$ 450,000	\$ 157,500	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On all legs	1	EA	\$ 100,000	\$ 100,000	
PROJECT SUB-TOTAL			\$ 292,900.00		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Mayfield Avenue (Bundy Dr. to San Vicente Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	10	EA	\$ 600	\$ 6,000	
PROJECT SUB-TOTAL			\$ 6,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Sawtelle Boulevard/ Bonsall Avenue (Nimitz Ave. to Ohio Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.502	MI	\$ 75,000	\$ 37,642	
Shared Use Path	0.445	MI	\$ 1,600,000	\$ 712,121	
Bicycle-Friendly Intersections (at Signalized Intersections)					
On main street legs	1	EA	\$ 50,000	\$ 50,000	
On all legs	2	EA	\$ 100,000	\$ 200,000	
PROJECT SUB-TOTAL			\$ 999,763.26		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Constitution Avenue (Bonsall Ave. to Sepulveda Blvd.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.322	MI	\$ 75,000	\$ 24,148	
PROJECT SUB-TOTAL			\$ 24,147.73		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: New Pershing Avenue (Bringham Ave. to Bonsall Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Bicycle Lane	0.284	MI	\$ 75,000	\$ 21,307	
PROJECT SUB-TOTAL			\$ 21,306.82		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Grant Avenue (Bonsall Ave. to Dewey Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
NONE					
PROJECT SUB-TOTAL			\$ -		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Eisenhower Avenue (Bringham Ave. to Davis Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	10	EA	\$ 600	\$ 6,000	
PROJECT SUB-TOTAL			\$ 6,000.00		

Purple Line Extension Sections 2&3 Cost Estimates
 Westwood / VA Hospital Station - Bicyclist

Location: Davis Avenue (Constitution Ave. to Eisenhower Ave.)

Prepared By: ESS
 Date: 2020-03-20

FTA SCC-50 CONSTRUCTION COSTS

ITEM DESCRIPTION	QTY	UNIT	AMOUNT		TOTAL AMOUNT
			Unit Cost	Amount	Amount
Sharrows	4	EA	\$ 600	\$ 2,400	
PROJECT SUB-TOTAL					\$ 2,400.00

Next stop: connected communities.

PROJECT SCORING AND PRIORITIZATION

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

PROJECT SCORING and PRIORITIZATION
 WILSHIRE/RODEO STATION - WALK PROJECTS

Wilshire/Rodeo Station - Projects for Pedestrians																					
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max) Score	Total Cost	Selected Projects		
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points	
Projects on Wilshire Blvd (Primary Arterial)																				\$ 3,004,450	
1		New or improved crosswalk	Linden Dr to Wetherly Dr	5					5											\$ 119,250	
2		Bus stop improvements	Linden Dr to Wetherly Dr				8		5											\$ 855,000	
3		Ped/bike lighting	Linden Dr to Wetherly Dr	5	3	13				60		85	25.0	10	2.5			12.5		\$ 1,160,000	
4		Street furniture	Linden Dr to Wetherly Dr				6	30												\$ 174,000	
5		Wayfinding	Linden Dr to Wetherly Dr				6		5											\$ 16,200	
6		Landscaping and shade	Linden Dr to Wetherly Dr				10		5	5										\$ 680,000	
Projects on Beverly Dr. (Primary Arterial)																				\$ 1,780,440	
7		Bulb-outs	Park Way to Olympic Blvd	5																\$ 960,000	
8		New or improved crosswalk	Park Way to Olympic Blvd	5																\$ 36,000	
9		Improved sidewalks	Park Way to Olympic Blvd	5	5	20			5	34		44	12.9	10	2.5			12.5		\$ 209,040	
10		Bus stop improvements	Park Way to Olympic Blvd				8	20												\$ 405,000	
11		Street furniture	Park Way to Olympic Blvd				6		5											\$ 156,000	
12		Wayfinding	Park Way to Olympic Blvd				6													\$ 14,400	
Projects on N. Santa Monica Blvd (Primary Arterial)																				\$ 1,157,700	
13		New or improved crosswalk	Bedford Dr to N Alpine Dr	5					5											\$ 40,500	
14		Bus stop improvements	Bedford Dr to N Alpine Dr				8													\$ 270,000	
15		Ped/bike lighting	Bedford Dr to N Alpine Dr	5	1	11				14		34	10.0	10	2.5			12.5		\$ 560,000	
16		Wayfinding	Bedford Dr to N Alpine Dr				6		5											\$ 7,200	
17		Landscaping and shade	Bedford Dr to N Alpine Dr				10		5	5										\$ 280,000	

PROJECT SCORING and PRIORITIZATION
WILSHIRE/RODEO STATION - WALK PROJECTS

Wilshire/Rodeo Station - Projects for Pedestrians (cont'd)																												
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max) Score	Total Cost	Selected Projects									
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points								
Projects on S. Santa Monica Blvd (Secondary Collector)																	\$ 1,975,000											
18		New or improved crosswalks	Roxbury Dr to Crescent Dr	5					5									\$ 36,000										
19		Traffic Calming	Roxbury Dr to Crescent Dr	5														\$ 960,000										
20		Ped/bike lighting	Roxbury Dr to Crescent Dr	5	3	18		22		14	29	8.5	2.5	2.5	51.0		\$ 600,000											
21		Street furniture	Roxbury Dr to Crescent Dr				6																		\$ 90,000			
22		Wayfinding	Roxbury Dr to Crescent Dr				6																			\$ 9,000		
23		Landscaping and shade	Roxbury Dr to Crescent Dr				10									5		5								\$ 280,000		
Projects on Charleville Blvd (Secondary Collector)																	\$ 1,376,300											
24		New or improved crosswalks	Beverly Dr to Camden Dr	5	1	16		6		22	27	7.9	2.5	2.5	32.4		\$ 81,000											
25		Bulb-outs	Beverly Dr to Camden Dr	5																						\$ 240,000		
26		Pedestrian lighting	Beverly Dr to Camden Dr	5																						\$ 1,040,000		
27		Wayfinding	Beverly Dr to Camden Dr				6																			\$ 15,300		
Projects on Burton Way (Secondary Collector)																	\$ 833,000											
28		New or improved crosswalks	Rexford Dr to Palm Dr	5	0	10		14		18	18	5.3	2.5	2.5	31.8		\$ 54,000											
29		Bus stop improvements	Rexford Dr to Palm Dr				8																			\$ 270,000		
30		Ped/bike lighting	Rexford Dr to Palm Dr	5																						\$ 500,000		
31		Wayfinding	Rexford Dr to Palm Dr				6																			\$ 9,000		
Projects on Rodeo Dr (Secondary Collector)																	\$ 738,900											
32		Ped/bike lighting	Wilshire Blvd to Charleville Blvd		1	6		6		12	17	5.0	10	2.5	12.5	29.5		\$ 720,000										
33		Wayfinding	Wilshire Blvd to Charleville Blvd				6																				\$ 9,900	
34		New or improved crosswalks	Wilshire Blvd to Charleville Blvd	5													5										\$ 9,000	

PROJECT SCORING and PRIORITIZATION
 WILSHIRE/RODEO STATION - WALK PROJECTS

Wilshire/Rodeo Station - Projects for Pedestrians (cont'd)																											
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max) Score	Total Cost	Selected Projects								
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points							
Projects on Reeves Dr (Secondary Collector)																	\$ 287,650										
35		Bulb-outs	Wilshire Blvd to Charleville Blvd	5		15		6		14		19	5.6		2.5	2.5	29.1	\$ 120,000									
36		Ped/bike lighting	Wilshire Blvd to Charleville Blvd	5																					\$ 160,000		
37		New or improved crosswalks	Wilshire Blvd to Charleville Blvd	5					5																\$ 6,750		
38		Wayfinding	Wilshire Blvd to Charleville Blvd						6																\$ 900		
Projects on Clifton Way (Secondary Collector)																	\$ 676,300										
39		Bulb-outs	Rexford Dr to Crescent Dr	5	1	16		6		10		15	4.4		2.5	2.5	28.9	\$ 120,000									
40		New or improved Crosswalks	Rexford Dr	5					5																	\$ 4,500	
41		Ped/bike lighting	Rexford Dr to Crescent Dr	5																						\$ 550,000	
42		Wayfinding	Rexford Dr to Crescent Dr								6															\$ 1,800	
Projects on Crescent Dr (Secondary Collector)																	\$ 1,760,500										
43		New or improved crosswalks	Wilshire Blvd to Clifton Way	5	3	23		0		10		10	2.9		2.5	2.5	28.4	\$ 40,500									
44		Traffic calming	Wilshire Blvd to Clifton Way	5																						\$ 120,000	
45		Bulb-outs	Wilshire Blvd to Clifton Way	5																						\$ 480,000	
46		Ped/bike lighting	Wilshire Blvd to Clifton Way	5																						\$ 1,120,000	
Projects on Canon Dr (Secondary Collector)																	\$ 107,400										
47		New or improved crosswalks	Wilshire Blvd to Clifton Way	5	1	6		12		12		17	5.0		2.5	2.5	25.5	\$ 31,500									
48		Street furniture	Wilshire Blvd to Clifton Way						6																	\$ 75,000	
49		Wayfinding	Wilshire Blvd to Clifton Way								6							5								\$ 900	

PROJECT SCORING and PRIORITIZATION
WILSHIRE/RODEO STATION - BICYCLE PROJECTS

Wilshire/Rodeo Station - Projects for Bicycles																					
#	Icon	Type	Cross Street/ Limits	Safety and Comfort (60 pts max)				Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)		Total Cost	Selected Projects		
				SWITRS (10 pts max)	NACTO Guidance (20 pts max)	Controlled Crossings (10 pts max)	Bicycle Amenities (20 pts max)	Points	Walk audit (5 pts max)	Pop Up: # of Votes	Survey (5 pts max)	Community Input Score	Points	Primary Street (5 pts max)	Connects to the Station (5 pts max)	Connects to bicycle network (3 pts max)	Connects to a major destination (2 pts max)			Points	Score
Projects on Beverly Dr (Primary Arterial)																		\$ 686,500			
1		Class IV protected bike lane	Santa Monica Blvd to Olympic Blvd	5	20	10		45	5	5	15	25.0	5	5	3	2	15	85.0	\$ 436,500		
2		Bicycle-friendly Intersection	Wilshire Blvd, Charleville Blvd, Gregory Way, Santa Monica Blvd				10														
Projects on Wilshire Blvd (Primary Arterial)																		\$ 1,950,000			
3		Bicycle-friendly Intersection & hub	Canon Dr, Beverly Dr (hub at Canon Dr only)	3		10	20	33		2	5	7	11.7	5	5		2	12	56.7	\$ 1,950,000	
Projects on Burton Way (Secondary Collector)																		\$ 307,000			
4		Class IV protected bike lane	Rexford Dr to San Vicente Blvd	3	20	10		43		5	5	8.3			3	2	5	56.3	\$ 207,000		
5		Bicycle-friendly Intersection	Foothill Rd, Maple Dr, Rexford Dr				10														
Projects on Clifton Way (Secondary Collector)																		\$ 298,500			
6		Class III Bike Boulevard with street calming	Canon Dr to Doheny Dr		10	10		30	5	1	6	10.0		5	3	2	10	50.0	\$ 148,500		
7		Bicycle-friendly Intersection	Rexford Dr, Canon Dr				10														
Projects on Charleville Blvd (Secondary Collector)																		\$ 644,000			
8		Class IV protected bike lane	McCarty Dr to Robertson Blvd	3	20	10		43		3	3	5.0				2	2	50.0	\$ 194,000		
9		Bicycle-friendly Intersection	Roxbury Dr, Camden Dr, Beverly Dr, Reeves Dr, Crescent Dr, Rexford Dr, Doheny Dr				10														
Projects on S. Santa Monica Blvd (Secondary Collector)																		\$ 55,400			
10		Class III Bike Boulevard with street calming	Rodeo Dr to Rexford Dr	5		10	10	25		1		1	1.7		3	2	5	31.7	\$ 55,400		
Projects on N. Santa Monica Blvd (Primary Arterial)																		\$ 100,000			
11		Bicycle-friendly Intersection	Bedford Dr to N Alpine Dr	5		10	10	25		1		1	1.7		3	2	5	31.7	\$ 100,000		
Projects on Canon Dr (Secondary Collector)																		\$ 34,500			
12		Class II bike lane	Santa Monica Blvd to Wilshire Blvd	1	5	10		16	5	1		6	10.0			2	2	28.0	\$ 34,500		
Projects on Crescent Dr (Secondary Collector)																		\$ 42,173			
13		Class III Bike Boulevard with street calming	Santa Monica Blvd to Olympic Blvd	3	5	10		18		2		2	3.3		3	2	5	26.3	\$ 42,173		
Projects on Roxbury Dr (Secondary Collector)																		\$ 38,850			
14		Class III Bike Boulevard with street calming	Santa Monica Blvd to Olympic Blvd	1	5	10		16				0	0.0		3		3	19.0	\$ 38,850		
Projects on Reeves Dr (Secondary Collector)																		\$ 41,800			
15		Class III Bike Boulevard with street calming	Wilshire Blvd to Charleville Blvd		10			10					0.0		5	2	7	17.0	\$ 41,800		

PROJECT SCORING and PRIORITIZATION
CENTURY CITY/CONSTELLATION STATION - WALK PROJECTS

Century City Station - Projects for Pedestrians																				
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Score	Total Cost	Selected Projects
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				
Projects on Constellation Blvd (Primary Arterial)																	\$ 1,808,300			
1		New or improved sidewalk	Century Park East and Century Park parking garage entrance	5					5		5							\$ 429,000		
2		Bus stop improvements	Avenue of the Stars				8											\$ 315,000		
3		Ped/bike lighting	Around Station	5					5		5							\$ 440,000		
4		Wayfinding	Century Park East to Century Park West			20	6	24		58		93	27.4	10	2.5		12.5	\$ 6,300		
5		Landscaping and shade	Avenue of the Stars				10		5		5							\$ 120,000		
6		Traffic Calming	Century Park East to Century Park West	5														\$ 480,000		
7		New or improved crosswalk	Century Park East to Century Park West	5					5									\$ 18,000		
Projects on Avenue of the Stars (Primary Arterial)																	\$ 2,205,000			
8		New or improved crosswalk	Constellation	5					5									\$ 31,500		
9		Traffic Calming	Along corridor	5														\$ 720,000		
10		Ped/bike lighting	Around Station	5					5		5							\$ 1,000,000		
11		Bus stop improvements	Constellation Blvd and Santa Monica Blvd			15	8	30		50		75	22.1	10	2.5		12.5	\$ 90,000		
12		Street furniture	Near station				6											\$ 150,000		
13		Landscaping and shade	Constellation Blvd				10				5							\$ 200,000		
14		Wayfinding	To station and popular attractions				6		5									\$ 13,500		
Projects on Century Park East (Secondary Collector)																	\$ 1,894,100			
15		New or improved crosswalks	Along corridor	5					5									\$ 18,000		
16		Bus stop improvements	Along corridor				8		5									\$ 585,000		
17		Landscaping and shade	Along corridor				10		5		5							\$ 120,000		
18		Street Furniture	Santa Monica, Olympic Blvd, Galaxy Way		1	16	6	30		30		60	17.6	10	2.5		12.5	\$ 90,000		
19		Ped/bike lighting	Santa Monica Blvd to Galaxy Way	5					5									\$ 600,000		
20		Wayfinding	Santa Monica Blvd, Olympic Blvd, Constellation				6		5									\$ 8,100		
21		New or improved sidewalk	Along corridor	5														\$ 473,000		

PROJECT SCORING and PRIORITIZATION
CENTURY CITY/CONSTELLATION STATION - WALK PROJECTS

Century City Station - Projects for Pedestrians (cont'd)																				
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects	
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points
Projects on Santa Monica Blvd (Primary Arterial)																\$ 1,301,450				
22		New or improved crosswalk	Avenue of the Stars Century Park E, Fox Hills Dr, Cornstalk Ave, Warnall, Ave, Benecia Ave, Enslay Ave, and Club View Dr.	5					5									\$ 65,250		
23		Bus stop improvements	Along corridor		1	6	8	24	5	60		85	25.0	10	2.5		12.5	67.5	\$ 900,000	
24		Wayfinding	To station and popular attractions				6		5									16,200		
25		Landscaping and shade	Median at Avenue of the Stars				10		5		5							320,000		
Projects on Century Park West (Secondary Collector)																\$ 1,939,700				
26		New or improved sidewalks	West side of corridor	5					5									873,600		
27		New or improved Crosswalks	Constellation Blvd, Solar Way, and Olympic Blvd	5														18,000		
28		Ped/bike lighting	West side of corridor	5	1	21		6	5	10	5	30	8.8	10	2.5		12.5	48.3	\$ 560,000	
29		Traffic Calming	Varied textures in crosswalks and road dips at Solar Way	5														480,000		
30		Wayfinding	Santa Monica Blvd, Olympic Blvd, Constellation				6											8,100		
Projects on Spaulding Dr (Secondary Collector)																\$ 286,800				
31		Bus stop improvements	Wilshire Blvd to Olympic Blvd				8											45,000		
32		Ped/bike lighting	Wilshire Blvd to Olympic Blvd	5	1	11	6	20	5			5	1.5		2.5		2.5	35.0	\$ 120,000	
33		Traffic Calming	Wilshire Blvd to Olympic Blvd	5														120,000		
34		Wayfinding	Wilshire Blvd to Olympic Blvd				6											1,800		
Projects on Solar Way (Secondary Collector)																\$ 1,124,500				
35		Landscaping and shade	Century Park West to Constellation Blvd				10											40,000		
36		New or improved sidewalks	Century Park West to Constellation Blvd	5		10		16		2	5	12	3.5		2.5		2.5	32.0	\$ 840,900	
37		Ped/bike lighting	Century Park West to Constellation Blvd	5							5							240,000		
38		Wayfinding	Century Park West to Constellation Blvd				6											3,600		
Projects on Galaxy Way (Secondary Collector)																\$ 908,200				
39		New or improved crosswalks	Century Park E	5														9,000		
40		Landscaping and shade	Western end to Century Park East			15	10	10		13		18	5.3				0	30.3	\$ 80,000	
41		Ped/bike lighting	Western end to Century Park East	5							5							320,000		
42		New or improved sidewalks	Western end to Century Park East	5														499,200		

PROJECT SCORING and PRIORITIZATION
 CENTURY CITY/CONSTELLATION STATION - WALK PROJECTS

Century City Station - Projects for Pedestrians (cont'd)																					
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Score	Total Cost	Selected Projects	
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)					Points
Projects on Moreno Dr (Secondary Collector)																	\$	611,250			
43		Ped/bike lighting	Lasky Dr to Young Dr	5	1	16				10	5	15	4.4		2.5		2.5	28.9	\$	360,000	
44		Wayfinding	Olympic Blvd				6	6													
45		Traffic Calming	Mid-block between Olympic Blvd and Spalding Dr, mid-block between Hillgreen Pl	5																	
46		New or improved crosswalks	Along corridor	5																	
Projects on Club View Dr (Secondary Collector)																	\$	1,024,000			
47		New or improved sidewalks	Along corridor	5	10	0		5	10	2.9		2.5		2.5	15.4	\$	624,000				
48		Ped/bike lighting	Along corridor	5			5														
Projects on Warnall Ave (Secondary Collector)																	\$	4,500			
49		New or improved crosswalks	Santa Monica Blvd	5	5	0					0.0		2.5		2.5	7.5	\$	4,500			

PROJECT SCORING and PRIORITIZATION
CENTURY CITY/CONSTELLATION STATION - BICYCLE PROJECTS

Century City Station - Projects for Bicycles																						
#	Icon	Type	Cross Street/ Limits	Safety and Comfort (60 pts max)					Community Input (25 pts max)					Connectivity (15 pts max)					Total (100 pts max)		Total Cost	Selected Projects
				SWITRS (10 pts max)	NACTO Guidance (20 pts max)	Controlled Crossings (10 pts max)	Bicycle Amenities (20 pts max)	Points	Walk audit (5 pts max)	Pop Up: # of Votes	Survey (5 pts max)	Community Input Score	Points	Primary Street (5 pts max)	Connects to the Station (5 pts max)	Connects to bicycle network (3 pts max)	Connects to a major destination (2 pts max)	Points	Score			
Projects on Constellation Blvd (Primary Arterial)																				\$ 2,289,000		
1		Class IV protected bike lane	Along corridor						5											\$ 189,000		
2		Bike Hub	At Station	1	20	10	10	51		12		17	20.2	5	5	3	2	15	86.2	\$ 1,800,000		
3		Bicycle-friendly Intersection	Century Park West, Avenue of the Stars, Century Park East				10													\$ 300,000		
Projects on Santa Monica Blvd (Primary Arterial)																				\$ 859,100		
4		Class IV protected bike lane	Pandora Ave to Moreno Dr						5											\$ 359,100		
5		Bicycle-friendly Intersection	Century Park West, Club View Dr, Avenue of the Stars, Century Park East, Moreno Dr, Lasky Dr	10	20	10	10	50		12		17	20.2	5		3	2	10	80.2	\$ 500,000		
Projects on Avenue of the Stars (Primary Arterial)																				\$ 505,000		
6		Class IV protected bike lane	Along corridor	1	20	10		41	5	14		19	22.6	5	5	3	2	15	78.6	\$ 405,000		
7		Bicycle-friendly Intersection	Santa Monica Blvd, Constellation Blvd				10													\$ 100,000		
Projects on Century Park East (Secondary Collector)																				\$ 505,000		
8		Class IV protected bike lane	Along corridor		20	10		40	5	16		21	25.0	5			2	7	72.0	\$ 405,000		
9		Bicycle-friendly Intersection	Constellation Ave, Santa Monica Blvd, Olympic Blvd, Galaxy Way				10													\$ 100,000		
Projects on Century Park West (Secondary Collector)																				\$ 238,500		
10		Class IV protected bike lane	Along corridor		20	10		30		2		2	2.4	5		3	2	10	42.4	\$ 238,500		
Projects on Club View Dr (Secondary Collector)																				\$ 2,400		
11		Class III Sharrows with street calming	Along corridor		20	10		30					0.0			3	2	5	35.0	\$ 2,400		
Projects on Spaulding Dr (Secondary Collector)																				\$ 143,000		
12		Class III Bike Boulevard with street calming	Wilshire to Olympic Blvd		10	10		20					0.0			3	2	5	25.0	\$ 143,000		
Projects on Moreno Dr (Secondary Collector)																				\$ 24,750		
13		Class II Bike Lane	Along corridor	3	10	10		23					0.0				2	2	25.0	\$ 24,750		
Projects on Solar Way (Secondary Collector)																				\$ 1,200		
14		Class III Sharrows	Century Park East		5	10		15					0.0				2	2	17.0	\$ 1,200		
Projects on Wamall Ave (Secondary Collector)																				\$ 95,260		
15		Class III Bike Boulevard with street calming	Along corridor		10			10					0.0			3	2	5	15.0	\$ 95,260		

PROJECT SCORING and PRIORITIZATION
WESTWOOD/UCLA STATION - WALK PROJECTS

Westwood/UCLA Station - Projects for Pedestrians																			
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max) Score	Total Cost	Selected Projects
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)			
Projects on Wilshire Blvd (Primary Arterial)																			
\$ 3,498,900																			
1		Bus stop improvements	Veteran Ave, Westwood Blvd, Glendon Ave				8		5									\$ 585,000	
2		Ped and Bike Lighting	along corridor	5					5	5								\$ 1,060,000	
3		Street Furniture	at controlled intersections				6											\$ 159,000	
4		Wayfinding	Veteran Ave, Glendon Ave, JPIC, California, and the Longford		5	20	6	30	5	54	99	25.0	10	2.5		12.5	87.5	\$ 14,400	
5		Landscaping and Shade	south side of the street and street corners				10		5	5								\$ 280,000	
6		New/Improved Crosswalks	Westwood Blvd, Glendon Ave, Malcom Ave, I-405 on-ramp	5					5									\$ 22,500	
7		New/Improved Sidewalks	South side of Wilshire Blvd	5					5	5								\$ 1,378,000	
Projects on Westwood Blvd (Primary Arterial)																			
\$ 3,638,400																			
8		New/Improved Crosswalks	Wilshire Blvd, Kinross Ave, Weyburn Ave, Ashton Ave	5					5									\$ 54,000	
9		Bus stop improvements	Wilshire Blvd				8											\$ 720,000	
10		Ped and Bike Lighting	along corridor	5						5								\$ 1,000,000	
11		Street Furniture	corners and midblock		5	20	6	30		46	71	17.9	10	2.5		12.5	80.4	\$ 150,000	
12		Wayfinding	Kinross Ave, Lindbrook Dr, Weyburn Ave, Le Conte Ave				6											\$ 14,400	
13		New/Improved Sidewalks		5						5								\$ 1,300,000	
14		Landscaping and Shade	south of Wilshire Blvd				10			5								\$ 400,000	
Projects on Gayley Ave (Primary Arterial)																			
\$ 1,976,250																			
15		New/Improved Crosswalks	Lindbrook Dr, Kinross Ave, Weyburn Ave, Le Conte Ave, new midblock x-ing at Levering Ave, scramble at Wilshire Blvd	5					5									\$ 29,250	
16		Bulb Outs	Lindbrook Dr, Kinross Ave, Weyburn Ave	5														\$ 720,000	
17		New/Improved Sidewalks	Consider decorative paving seen on Lindbrook/Westwood	5					5	5								\$ 884,000	
18		Ped and Bike Lighting	along corridor	5	3	23				30	65	16.4	10	2.5		12.5	75.9	\$ 204,000	
19		Wayfinding	at each intersection				6		5									\$ 9,000	
20		Bus Stop Improvements	north of Le Conte Ave				8		5									\$ 90,000	
21		Landscaping and Shade	along corridor				10			5								\$ 40,000	






PROJECT SCORING and PRIORITIZATION
WESTWOOD/UCLA STATION - WALK PROJECTS

Westwood/UCLA Station - Projects for Pedestrians (cont'd)																			
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)	Points		
Projects on Veteran Ave (Secondary Collector)																		\$ 1,419,000	
22		New/Improved Crosswalks	Midvale Ave, Glendon Ave	5					5									\$ 36,000	
23		Traffic Calming	along corridor	5														\$ 360,000	
24		New/Improved Sidewalks	along corridor	5					5									\$ 96,200	
25		Ped and Bike Lighting	along corridor	5	3	23		24	5	26	5	61	15.4	2.5		2.5		\$ 680,000	
26		Landscaping and Shade	Westwood Blvd				10		5		5							\$ 200,000	
27		Bus Stop Improvements	south of Wilshire Blvd				8											\$ 45,000	
28		Wayfinding	Rochester Ave				6											\$ 1,800	
Projects on Le Conte Ave (Secondary Collector)																		\$ 1,569,850	
29		Bulb Outs	Westwood Blvd, Broxton Ave	5														\$ 600,000	
30		New/Improved Crosswalks	Hilgard Ave, Gayley Ave	5														\$ 6,750	
31		Bus Stop Improvements	Westwood Blvd, Broxton Ave, Gayley Ave		1	16		16	5	14		29	7.3	2.5		2.5		\$ 315,000	
32		Wayfinding	Westwood Blvd, Broxton Ave, Gayley Ave, Geffen Playhouse				6											\$ 8,100	
33		Ped and Bike Lighting	along corridor	5							5							\$ 560,000	
34		Landscaping and Shade	along corridor				10				5							\$ 80,000	
Projects on Midvale/Kelton Ave (Secondary Collector)																		\$ 797,400	
35		New/Improved Crosswalks	Rochester Ave, Ashton Ave, Wellworth Ave, Wilkins Ave, Ohio Ave	5					5									\$ 31,500	
36		Bulb Outs	Ashton Ave, Wellworth Ave	5														\$ 120,000	
37		Ped and Bike Lighting	along corridor	5	1	16		14	5	8	5	33	8.3			0.0		\$ 600,000	
38		Bus Stop Improvements	along corridor				8		5									\$ 45,000	
39		Wayfinding	Rochester Ave				6		5									\$ 900	
Projects on Ohio Ave (Secondary Collector)																		\$ 621,500	
40		New/Improved Crosswalks	along corridor	5					5									\$ 31,500	
41		Ped and Bike Lighting	along corridor	5	1	11		10	5	10	5	35	8.8	2.5		2.5		\$ 390,000	
42		Landscaping and Shade	along corridor				10		5		5							\$ 200,000	

PROJECT SCORING and PRIORITIZATION
WESTWOOD/UCLA STATION - WALK PROJECTS

Westwood/UCLA Station - Projects for Pedestrians (cont'd)																						
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects			
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)	Points			Score		
Projects on Weyburn Ave (Secondary Collector)																		\$ 1,062,250				
43		New/Improved Crosswalks	Weyburn Pl to Hilgard Ave	5					5									\$ 2,250				
44		Traffic Calming	Weyburn Pl to Hilgard Ave	5	1	16					2			12	3.0		2.5		2.5	27.5	\$ 600,000	
45		Street Furniture	Weyburn Pl to Hilgard Ave				6	6													\$ 60,000	
46		Ped and Bike Lighting	Weyburn Pl to Hilgard Ave	5						5											\$ 400,000	
Projects on Lindbrook Dr (Secondary Collector)																		\$ 605,400				
47		New/Improved Crosswalks	Glendon Ave, Hilgard Ave	5					5												\$ 4,500	
48		Ped and Bike Lighting	along corridor	5	1	11		6		12	5	22	5.6			2.5			2.5	25.1	\$ 600,000	
49		Wayfinding	Hilgard Ave				6														\$ 900	
Projects on Weyburn Pl (Secondary Collector)																		\$ 1,362,000				
50		New/Improved Sidewalks	Strathmore Dr to Wilshire Blvd	5					5												\$ 702,000	
51		Ped and Bike Lighting	Strathmore Dr to Wilshire Blvd	5	1	11		10		1		6	1.5			2.5			2.5	25.0	\$ 540,000	
52		Landscaping and Shade	Strathmore Dr to Wilshire Blvd				10														\$ 120,000	
Projects on Tiverton Ave (Secondary Collector)																		\$ 362,250				
53		Landscaping and Shade	Le Conte Ave to Lindbrook Ave				10														\$ 80,000	
54		New/Improved Crosswalks	Le Conte Ave to Lindbrook Ave	5	1	11		10					0.0			2.5			2.5	23.5	\$ 2,250	
55		Ped and Bike Lighting	Le Conte Ave to Lindbrook Ave	5																	\$ 280,000	
Projects on Malcom Ave (Secondary Collector)																		\$ 347,000				
56		New/Improved Crosswalks	Wilshire Blvd	5																	\$ 27,000	
57		Bulb Outs	Wilshire Blvd to Ohio Ave	5	1	11		10		4		9	2.3						0.0	23.3	\$ 120,000	
58		Landscaping and Shade	along corridor				10				5										\$ 200,000	
Projects on Broxton Ave (Secondary Collector)																		\$ 365,400				
59		New/Improved Crosswalks	Le Conte Ave to Kinross Ave	5																	\$ 4,500	
60		Traffic Calming	Le Conte Ave to Kinross Ave	5	3	13		6		1		1	0.3			2.5			2.5	21.8	\$ 360,000	
61		Wayfinding	Le Conte Ave to Kinross Ave				6														\$ 900	
Projects on Hilgard Ave (Secondary Collector)																		\$ 285,400				
62		New/Improved Crosswalks	Le Conte Ave, Lindbrook Ave	5																	\$ 4,500	
63		Ped and Bike Lighting	along corridor	5	1	11		6		2	5	7	1.8			2.5			2.5	21.3	\$ 280,000	
64		Wayfinding	Lindbrook Ave				6														\$ 900	




PROJECT SCORING and PRIORITIZATION
 WESTWOOD/UCLA STATION - WALK PROJECTS

Westwood/UCLA Station - Projects for Pedestrians (cont'd)																				
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects	
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)	Points			Score
Westwood Recreation Center (Cut-through)																				
65		Landscaping and Shade	along new path		1	1	10	16			5	5	1.3		2.5			2.5	20.8	
66		Wayfinding	Veteran Ave				6													
Projects on Rochester Ave (Secondary Collector)																				
67		Wayfinding	Veteran Ave, Midvale Ave		1	6	6	6					0.0			2.5		2.5	14.5	\$ 1,800
68		New/Improved Crosswalks	Veteran Ave to Manning Ave	5																\$ 4,500
Federal Building (Cut-through)																				
69		Wayfinding	Veteran Ave		1	1	6	6					0.0		2.5	2.5		5.0	12.0	

PROJECT SCORING and PRIORITIZATION
WESTWOOD/UCLA STATION - BICYCLE PROJECTS

Westwood/UCLA Station - Projects for Bicycles																					
#	Icon	Type	Cross Street/ Limits	Safety and Comfort (60 pts max)					Community Input (25 pts max)					Connectivity (15 pts max)					Total (100 pts max)	Total Cost	Selected Projects
				SWITRS (10 pts max)	NACTO Guidance (20 pts max)	Controlled Crossings (10 pts max)	Bicycle Amenities (20 pts max)	Points	Walk audit (5 pts max)	Pop Up: # of Votes	Survey (5 pts max)	Community Input Score	Points	Primary Street (5 pts max)	Connects to the Station (5 pts max)	Connects to bicycle network (3 pts max)	Connects to a major destination (2 pts max)	Points			
Projects on Westwood Blvd (Primary Arterial)																				\$ 826,136	
1		Class IV protected bike lane	Le Conte Ave to Massachusetts Ave	10	20	10		50	5	4		9	25.0	5	5	3	2	15	90.0	\$ 426,136	
2		Bicycle-friendly Intersection	Lindbrook Dr, Wilshire Blvd, Rochester Ave, Ohio Ave				10														
Projects on Ohio Ave (Secondary Collector)																				\$ 393,105	
3		Class IV protected bike lane	Westgate Ave to Westwood Blvd	5	20	10		45	5	1		6	16.7			3	2	5	66.7	\$ 193,500	
4		Class III Bike Boulevard	Westwood Blvd to Rochester Ave																		
5		Bicycle-friendly Intersection	Kelton Ave, Westwood Blvd				10														
Projects on Gayley Ave (Primary Arterial)																				\$ 589,773	
6		Class IV protected bike lane	Wilshire Blvd to Veteran Ave	5	20	10		45		2		2	5.6	5	5	3	2	15	65.6	\$ 289,773	
7		Bicycle-friendly Intersection	Wilshire Blvd, Le Conte Ave, Lindbrook Dr				10														
Projects on Wilshire Blvd (Primary Arterial)																				\$ 2,100,000	
8		Bicycle-friendly Intersection & hub	Veteran Ave, Gayley Ave, Westwood Blvd (hub at Station)	10		10	20	40		4		4	11.1	5	5		2	12	63.1	\$ 2,100,000	
Projects on Veteran Ave (Secondary Collector)																				\$ 154,750	
9		Class II bike lane	Rochester Ave to Gayley Ave	10	5	10		35		2		2	5.6			2	2	4	44.6	\$ 54,750	
10		Bicycle-friendly Intersection	Weyburn Ave, Kinross Ave, Wilshire Blvd, Rochester Ave				10														
Projects on Rochester Ave (Secondary Collector)																				\$ 333,150	
11		Class III Bike Boulevard with street calming	East from Veteran Ave	1	20	10		41					0.0			3		3	44.0	\$ 183,150	
12		Bicycle-friendly Intersection	Veteran Ave, Midvale Ave, Westwood Blvd				10														
Projects on Lindbrook Dr (Secondary Collector)																				\$ 317,815	
13		Class III Bike Boulevard with street calming	Hilgard Ave to Westholme Ave	5	5	10		30		1		1	2.8			3	2	5	37.8	\$ 102,190	
14		Class II bike lane	Gayley Ave to Hilgard Ave																		
15		Bicycle-friendly Intersection	Gayley Ave, Hilgard Ave, Westwood Blvd, Glendon Ave, Tiverton Ave				10														
Projects on Broxton Ave (Secondary Collector)																				\$ 2,400	
16		Class III Bike Boulevard with street calming	Le Conte Ave to Kinross Ave	10	10			20		3		3	8.3			3	2	5	33.3	\$ 2,400	
Federal Building (Cut-through)																					
17		Assumes pedestrian pathway improvements	Between Sepulveda Blvd and Veteran Ave	10	20			30					0.0				2	2	32.0		
Projects on Midvale/Kelton Ave (Secondary Collector)																				\$ 170,500	
18		Class III Bike Boulevard with street calming	Wilshire Blvd to Santa Monica Blvd	3	10			13	5	1		6	16.7			2		2	31.7	\$ 170,500	

PROJECT SCORING and PRIORITIZATION
 WESTWOOD/UCLA STATION - BICYCLE PROJECTS

Westwood/UCLA Station - Projects for Bicycles (cont'd)																							
#	Icon	Type	Cross Street/ Limits	Safety and Comfort (60 pts max)					Community Input (25 pts max)					Connectivity (15 pts max)					Total (100 pts max)		Total Cost	Selected Projects	
				SWITRS (10 pts max)	NACTO Guidance (20 pts max)	Controlled Crossings (10 pts max)	Bicycle Amenities (20 pts max)	Points	Walk audit (5 pts max)	Pop Up: # of Votes	Survey (5 pts max)	Community Input Score	Points	Primary Street (5 pts max)	Connects to the Station (5 pts max)	Connects to bicycle network (3 pts max)	Connects to a major destination (2 pts max)	Points	Score				
Projects on Weyburn Ave (Cut-through)																					\$	50,000	
19		Bicycle-friendly Intersection	Weyburn Pl to Gayley Ave	10			10	20						0.0			3	2	5	25.0	\$ 50,000		
Westwood Recreation Center (Cut-through)																							
20		Assumes pedestrian pathway improvements	Between Sepulveda Blvd and Veteran Ave	1	20			21						0.0			2	2	4	25.0			
Projects on Weyburn Pl (Secondary Collector)																					\$	7,200	
21		Class III Bike Boulevard with street calming	Between Strathmore Dr and Wilshire Blvd		20			20						0.0			3	2	5	25.0	\$ 7,200		
Projects on Hilgard Ave (Secondary Collector)																					\$	19,886	
22		Class II bike lane	Lindbrook Dr to Sunset		5	10		15						0.0			2	2	4	19.0	\$ 19,886		
Projects on Le Conte Ave (Secondary Collector)																					\$	300,000	
23		Bicycle-friendly Intersection	Gayley Ave, Hilgard Ave	1			10	11						0.0			3	2	5	16.0	\$ 300,000		
Projects on Malcom Ave (Secondary Collector)																					\$	97,900	
24		Class III Bike Boulevard with street calming	Wilshire Blvd to Ohio Ave		5			5						0.0			3		3	8.0	\$ 97,900		

PROJECT SCORING and PRIORITIZATION
 WESTWOOD/VA HOSPITAL STATION - WALK PROJECTS

Westwood/VA Station - Projects for Pedestrians																				
#	Icon	Type	Cross Street / Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects	
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points
Projects on Sawtelle Blvd/Bonsall Ave (Cut-through)																			\$ 2,464,500	
1		New or improved crosswalks	Nimitz Ave, Constitution Ave, Dowlen Ave	5					5		5								\$ 36,000	
2		Bus stop improvements	along corridor				8												\$ 180,000	
3		Wayfinding	Around buildings and station				6		5										\$ 13,500	
4		Street furniture	along corridor		1	16	6	30	44		84	23.9	10	2.5			12.5		\$ 150,000	
5		Landscaping and shade	Ohio Ave to Constitution				10		5		5								\$ 240,000	
6		New/Improved Sidewalks	Nimitz Ave to Ohio Ave	5					5										\$ 845,000	
7		Ped/bike lighting	along corridor	5					5		5								\$ 1,000,000	
Projects on Wilshire Blvd (Primary Arterial)																			\$ 1,058,300	
8		New or improved crosswalks	Barrington Ave to I-405	5					5		5								\$ 22,500	
9		Bus stop improvements	Barrington Ave to I-405				8		5										\$ 45,000	
10		Ped/bike lighting	Barrington Ave to I-405	5	3	13		24	5	48	5	88	25.0	10	2.5				\$ 820,000	
11		Wayfinding	Barrington Ave to I-405				6		5										\$ 10,800	
12		Landscaping and shade	Barrington Ave to I-405				10		5		5								\$ 160,000	
Projects on Veteran Ave (Secondary Collector)																			\$ 1,419,000	
13		New or improved crosswalks	North Ln to Rochester Ave	5					5		5								\$ 36,000	
14		Ped/bike lighting	North Ln to Rochester Ave	5					5		5								\$ 680,000	
15		Bus stop improvements	North Ln to Rochester Ave				8												\$ 45,000	
16		Wayfinding	North Ln to Rochester Ave		3	23	6	24	8		43	12.2	10	2.5					\$ 1,800	
17		Traffic Calming	North Ln to Rochester Ave	5															\$ 360,000	
18		New/Improved Sidewalks	North Ln to Rochester Ave	5					5										\$ 96,200	
19		Landscaping and shade	North Ln to Rochester Ave				10		5		5								\$ 200,000	
Projects on Federal Ave/San Vicente Blvd/Bringham Ave (Secondary Collector)																			\$ 1,055,800	
20		New or improved crosswalk	New Pershing Ave to Ohio Ave	5					5		5								\$ 45,000	
21		Ped/bike lighting	New Pershing Ave to Ohio Ave	5					5		5								\$ 800,000	
22		Wayfinding	New Pershing Ave to Ohio Ave		1	11	6	16	10		40	11.4	10	2.5					\$ 10,800	
23		Landscaping and shade	New Pershing Ave to Ohio Ave				10				5								\$ 200,000	

PROJECT SCORING and PRIORITIZATION
WESTWOOD/VA HOSPITAL STATION - WALK PROJECTS

Westwood/VA Station - Projects for Pedestrians (cont'd)																													
#	Icon	Type	Cross Street/ Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max) Score	Total Cost	Selected Projects										
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)				Points									
Projects on Ohio Ave (Secondary Collector)																\$ 2,762,000													
24		New or improved crosswalks	Barrington Ave to Veteran Ave	5							5							\$ 72,000											
25		Ped/bike lighting	Barrington Ave to Veteran Ave	5	1	16		6		5	36	5	56	15.9	10	2.5	12.5	50.4	\$ 1,000,000										
26		New/Improved Sidewalks	Barrington Ave to Veteran Ave	5																								\$ 1,170,000	
27		Landscaping and shade	Barrington Ave to Veteran Ave							6										5								\$ 520,000	
Projects on Grant Ave (Cut-through)																			\$ 710,700										
28		Ped/bike lighting	Along roadway	5	20	20		22		5	20	5	20	5.7	2.5	2.5	50.2	\$ 220,000											
29		Wayfinding	Along roadway and at Dewey Ave, Bonsall Ave						6																		\$ 2,700		
30		Landscaping and shade	Along roadway						10										5								\$ 40,000		
31		Street furniture	Stop and pedestrian signage at every crosswalk, benches along roadway						6																		\$ 33,000		
32		New/Improved Sidewalks	Bonsall Ave to Dewey Ave	5																							\$ 286,000		
33		Bulb Outs	Bonsall Ave to Dewey Ave	5																							\$ 120,000		
34		New or improved crosswalks	At existing crosswalks	5															5								\$ 9,000		
Projects on New Pershing Ave (Cut-through)																\$ 1,862,000													
35		New or improved crosswalks	Along roadway and future Pershing Ave/Bonsall Ave intersection	5	15	22		22		5	15	5	15	4.3	2.5	2.5	43.8	\$ 22,500											
36		New/Improved Sidewalks	Bringham Ave to New Pershing Ave	5																							\$ 1,290,000		
37		Ped/bike lighting	Along roadway	5															5								\$ 300,000		
38		Landscaping and shade	Along roadway						10										5								\$ 200,000		
39		Street Furniture	Stop and pedestrian signage at every crosswalk, benches along roadway						6																		\$ 45,000		
40		Wayfinding	Along roadway and at Bringham Ave, Bonsall Ave						6																		\$ 4,500		
Projects on Eisenhower Ave (Cut-through)																\$ 633,300													
41		Ped/bike lighting	Along roadway	5	10	22		22		5	22	5	22	6.3	2.5	2.5	40.8	\$ 460,000											
42		Wayfinding	Bringham Ave, Bonsall Ave						6																		\$ 6,300		
43		Landscaping and shade	Along roadway						10										5								\$ 80,000		
44		Street furniture	Stop and pedestrian signage at every crosswalk, benches along roadway						6																		\$ 69,000		
45		New or improved crosswalks	Existing crosswalks	5															5								\$ 18,000		

PROJECT SCORING and PRIORITIZATION
 WESTWOOD/VA HOSPITAL STATION - WALK PROJECTS

Westwood/VA Station - Projects for Pedestrians (cont'd)																				
#	Icon	Type	Cross Street/ Limits	Safety (30 pts max)			Comfort (30 pts max)		Community Input (25 pts max)				Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects	
				Improvement (25 pts max)	SWITRS (5 pts max)	Points	Improvement	Points	Walk audit (5 pts max)	# of votes per corridor	Survey (5 pts max)	Community Input Score	Points	Primary Street (10 pts max)	Connects to a major destination (2.5 pts max)	Decreases walking distance to destinations in 1/2-mile radius (2.5 pts max)	Points			Score
Projects on Constitution Ave (Cut-through)																	\$ 1,690,300			
46		New or improved Crosswalks	Davis Ave and Bonsall Ave	5							5								\$ 18,000	
47		Ped/bike lighting	Both sides of roadway	5							5							\$ 340,000		
48		Landscaping and shade	Sepulveda Blvd and Bonsall Ave			15	10	16		2	5	17	4.8		2.5		2.5	\$ 80,000		
49		New/Improved Sidewalks	New Pershing Ave to Sepulveda Blvd	5														\$ 1,247,800		
50		Wayfinding	Davis Ave to Sepulveda Ave				6											\$ 4,500		
Projects on Davis Ave (Cut-through)																	\$ 1,435,100			
51		Ped/bike lighting	Along corridor	5							5							\$ 260,000		
52		Wayfinding	Constitution Ave								5							\$ 3,600		
53		New/Improved Sidewalks	Constitution Ave to Eisenhower Ave	5		15		0				15	4.3		2.5		2.5	\$ 1,118,000		
54		New or improved Crosswalks		5														\$ 13,500		
55		Landscaping and shade	Along pathway								5							\$ 40,000		
Westwood Recreation Center (Cut-through)																				
56		Ped/bike lighting	Along pathway	5		5		6			5		5	1.4		3	2.5	\$ 14,900		
57		Wayfinding	Along pathway and at Sepulveda Blvd and Veteran Ave				6													
Federal Building (Cut-through)																				
58		Ped/bike lighting	Along Federal Ave	5		5		6			5		5	1.4		3	2.5	\$ 14,900		
59		Wayfinding	Along pathway and at Sepulveda Blvd and Veteran Ave				6													
Projects on Mayfield Ave (Secondary Collector)																	\$ 660,000			
60		Ped/bike lighting	San Vicente Blvd	5		5		0			5	5	1.4				0	\$ 660,000		

PROJECT SCORING and PRIORITIZATION
 WESTWOOD/VA HOSPITAL STATION - BICYCLE PROJECTS

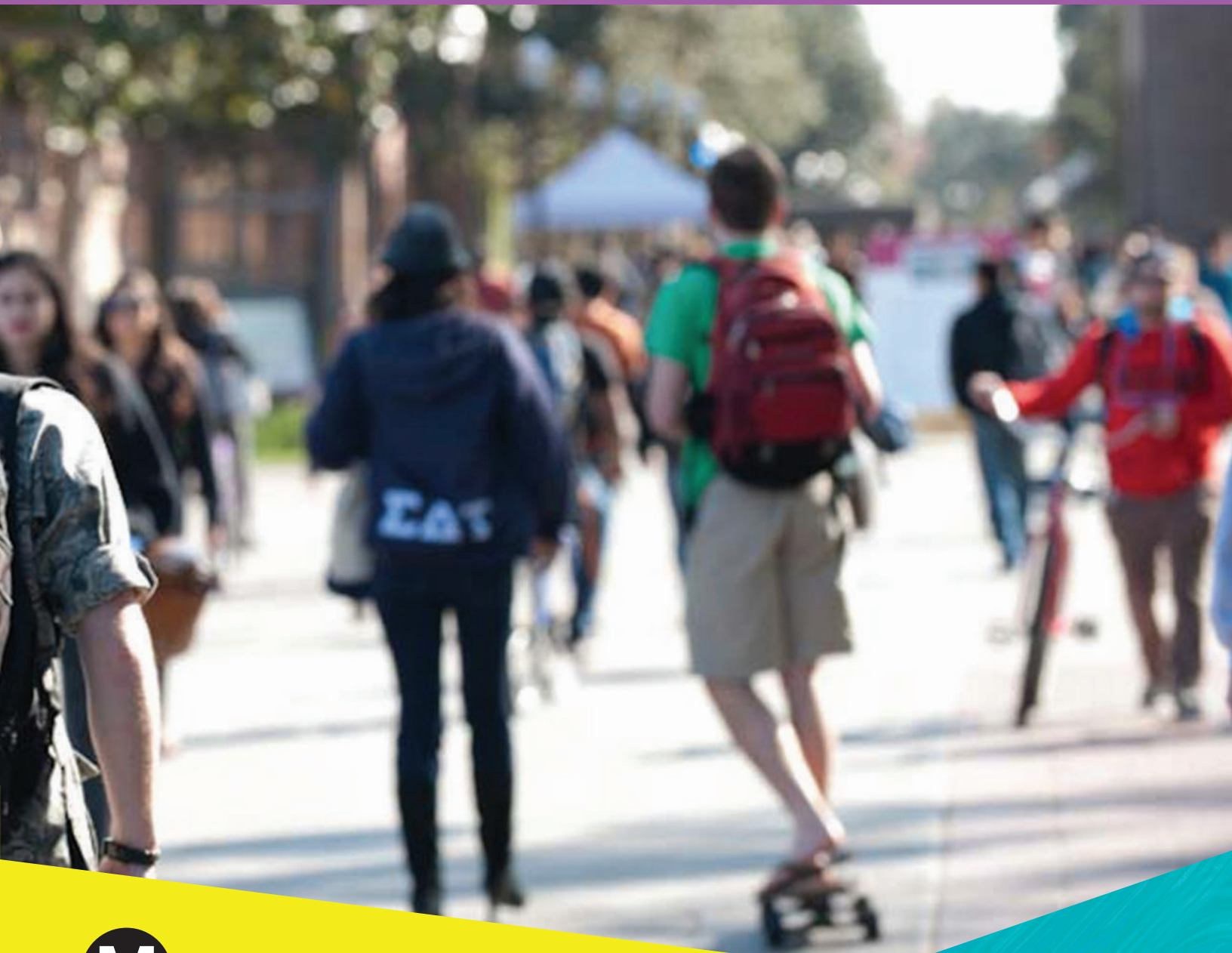
Westwood/VA Station - Projects for Bicycles																								
#	Icon	Type	Cross Street/ Limits	Safety and Comfort (60 pts max)					Community Input (25 pts max)					Connectivity (15 pts max)				Total (100 pts max)	Total Cost	Selected Projects				
				SWITRS (10 pts max)	NACTO Guidance (20 pts max)	Controlled Crossings (10 pts max)	Bicycle Amenities (20 pts max)	Points	Walk audit (5 pts max)	Pop Up: # of Votes	Survey (5 pts max)	Community Input Score	Points	Primary Street (5 pts max)	Connects to the Station (5 pts max)	Connects to bicycle network (3 pts max)	Connects to a major destination (2 pts max)				Points	Score		
Projects on Ohio Ave (Secondary Collector)																						\$	240,000	
1		Class IV protected bike lane	Barrington Ave to Sepulveda Blvd	10	20	10		50	5	1	6	10.7	5	3	2	10	70.7	\$	140,000					
2		Bicycle-friendly Intersection	Sawtelle Blvd				10																	
Projects on Sawtelle Blvd/Bonsall Ave (Cut-through)																						\$	999,763	
3		Class II bike lane	South of Wilshire Blvd	3	20	10		43	5	2	7	12.5	5	5	3	2	15	70.5	\$	37,642				
4		Class I Multi Use Path	North of Wilshire Blvd																					
5		Bicycle-friendly Intersection	Ohio Ave, Eisenhower Ave, New Pershing Ave, Grant Ave				10																	
Projects on Wilshire Blvd (Primary Arterial)																						\$	1,800,000	
6		Bike Hub	At station	10		10	10	30		14	14	25.0	5	5		2	12	67.0	\$	1,800,000				
Projects on Federal Ave/San Vicente Blvd/Bringham Ave (Secondary Collector)																						\$	292,900	
7		Class II bike lane	Ohio Ave to Wilshire Blvd	5	20	10		45		2	2	3.6	5	3	2	10	58.6	\$	35,400					
8		Class IV protected bike lane	Wilshire Blvd to Darlington Ave																					
9		Bicycle-friendly Intersection	Bringham Ave				10																	
Projects on Veteran Ave (Secondary Collector)																						\$	154,750	
10		Class II bike lane	New bike lane to connect new bike boulevard on Rochester Ave	3	10	10		33		2	2	3.6	5	3	2	10	46.6	\$	54,750					
11		Bicycle-friendly Intersection	Kinross Ave, Wilshire Blvd, Rochester Ave, Weyburn Ave				10																	
Projects on Constitution Ave (Cut-through)																						\$	24,148	
12		Class II bike lane	Sepulveda Blvd to Bonsall Ave	1	20	10		31				0.0			2	2	33.0	\$	24,148					
Projects on New Pershing Ave (Cut-through)																						\$	21,306	
13		Class II bike lane	along corridor		20	10		30				0.0			2	2	32.0	\$	21,306					
Projects on Davis Ave (Cut-through)																						\$	2,400	
14		Class III Bike Blvd with street calming	along corridor		20			20				0.0			2	2	22.0	\$	2,400					
Projects on Eisenhower Ave (Cut-through)																						\$	6,000	
15		Class III Bike Blvd with street calming	along corridor			10		10				0.0		3	2	5	15.0	\$	6,000					
Projects on Playfield Ave (Primary Arterial)																						\$	6,000	
16		Class III Bike Blvd with street calming	along corridor		10			10				0.0			2	2	12.0	\$	6,000					

Supporting Documents

Next stop: connected communities.

EXISTING CONDITIONS

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

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1. Introduction

The Purple Line Extension Sections 2 & 3 First/Last Mile Plan is focused on identifying improvements for pedestrian and bicycle access to the four new subway stations proposed in Beverly Hills, Century City, Westwood, and West Los Angeles. Sections 2 & 3 of Purple Line Extension will connect Downtown Los Angeles to some of the biggest destinations for tourists, commuters, students, and veterans in Los Angeles County.

From the current terminus at the Wilshire/Western Station, the Purple Line will extend westward for approximately 9 miles and Sections 1, 2, and 3 will add a total of seven new stations.

The Purple Line Extension Sections 2 & 3 First/Last Mile Plan aims to increase the mobility, accessibility, safety, and comfort for pedestrians, bicyclists, and other active modes of transportation surrounding four proposed Purple Line Stations. This report details the existing conditions for the area encompassing these four future stations:

- Wilshire / Rodeo Station
- Century City / Constellation Station
- Westwood / UCLA Station
- Westwood / VA Hospital Station

This report focuses on each station area within a half-mile radius for the four future Purple Line stations. This report details the current built environment in relation to numerous factors related to improving station access for pedestrians and bicyclists. These factors include:

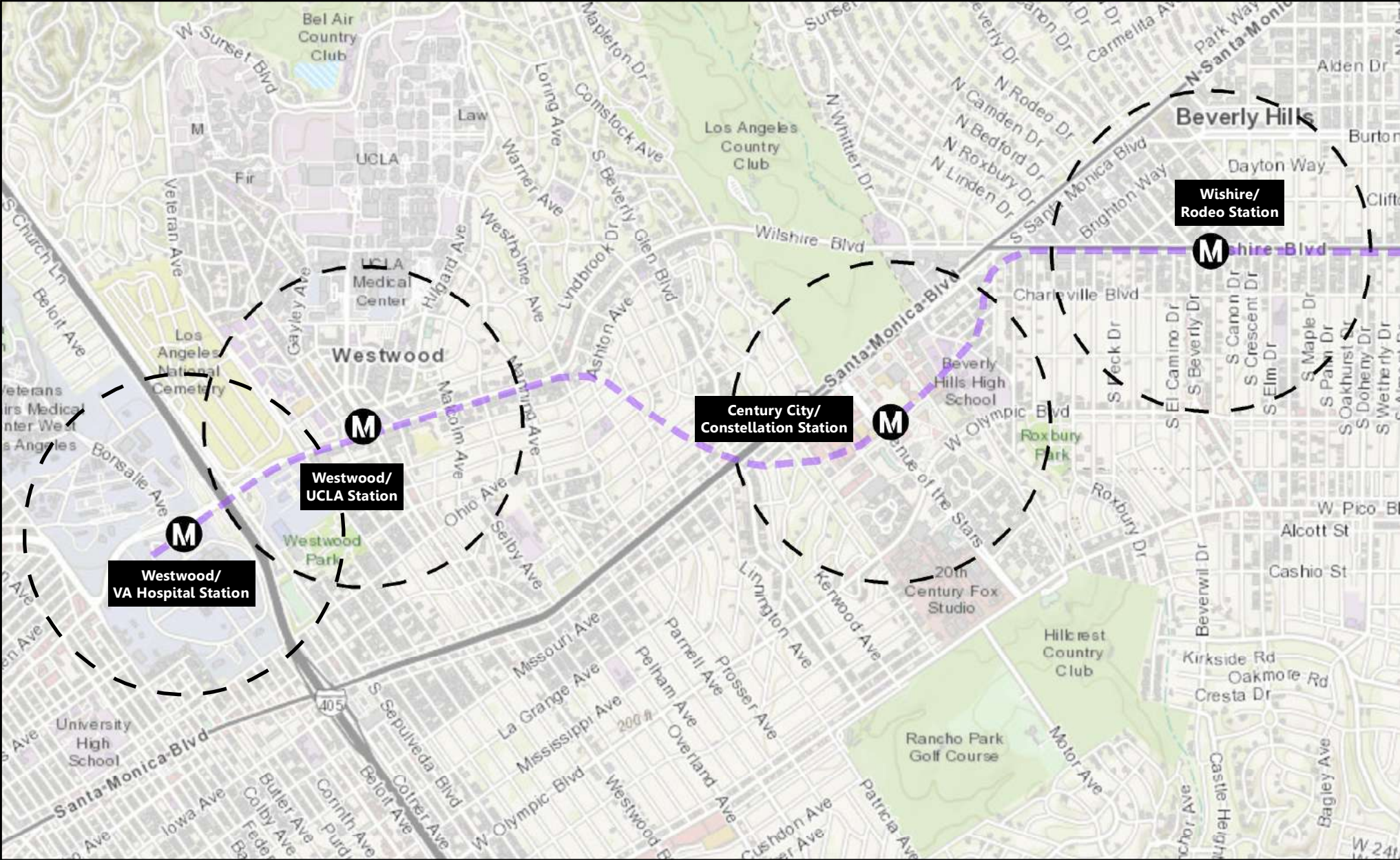
- The street grid network around each station
- Each station's pedestrian shed, or the area within which a pedestrian would comfortably walk to access the station
- Streets with high vehicular speeds around each station
- Bicycle and pedestrian collision locations within a half-mile of each station
- Key access corridors, or the most logical paths a pedestrian or cyclist would take to access the station
- Bicycle facilities within three miles of each station
- Bus transit routes that intersect the half-mile radius of each station
- Land use within a half-mile of each station
- Points of interest within a half-mile of each station

These factors were established in Metro's *First Last Mile Strategic Plan & Planning Guidelines* and form the foundation for technical analysis of existing and future conditions for pedestrians and bicyclists in the station areas.

Figure 1.1 shows the location of the four future Purple Line stations for Sections 2 & 3, as well as the half-mile planning radius around each station.

Purple Line Extension First Last Mile Planning Study Area

Figure 1.1

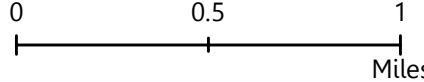


Purple Line Extension

Station Entrance Locations

Half Mile Radii around Station Locations

v-5



2. Station-Area Existing Conditions

The Purple Line Extension Project is being built in three sections. The Section 1 between Wilshire/ Western and Wilshire/ La Cienega is under construction and is scheduled for completion in 2023. This Purple Line Extension First/ Last Mile Plan focuses on Section 2 and Section 3 of the Extension Project.

Section 2 of the Purple Line Extension adds 2.59 miles of track to Metro's rail system with two new stations at Wilshire/ Rodeo and Century City/ Constellation. The project received full federal funding from the U.S. Department of Transportation in January 2017 and is now under construction. Construction began in 2018 and rail service is scheduled to begin operations in 2025.

Section 3 of the Purple Line Extension will add 2.56 miles of new rail to Metro's rail system and will connect downtown Los Angeles to Westwood. The two new added stations will be constructed at Wilshire/ Westwood and at the VA Hospital on the west side of the I-405 Freeway. Section 3 received approval to move forward into construction by Metro's Board in 2016 and is currently in preconstruction. Construction is expected to begin toward the end of 2019 and this section of the extension is projected to open in 2026.

The following existing conditions analysis highlights key transportation features within a half-mile radius for each of the four stations. This analysis serves as a preliminary station analysis and examines access-related station area characteristics identified in Metro's *First Last Mile Strategic Plan & Planning Guidelines*. These access-related station area characteristics are:

- Street Grid
- Pedestrian Shed
- Vehicular Speeds
- Key Access Corridors
- Bicycle and Pedestrian Collisions
- Bicycle Connections
- Transit Connections
- Land Use
- Points of Interest

2.1. Wilshire / Rodeo Station

The Wilshire/ Rodeo Station will be located on the southwest corner of Wilshire Boulevard and Reeves Drive, a few blocks east of Rodeo Drive and just north of Reeves Park, in the heart of Beverly Hills and at a central location on the southern edge of the 'Golden Triangle'. The station portal is proposed at the southwest corner of Wilshire Boulevard and Reeves Drive.

A half-mile radius around this station location extends as far north as North Santa Monica Boulevard and Rexford Drive, and as far south as Beverly Drive and Olympic Boulevard. In addition, the half-mile radius reaches as far west as Wilshire Boulevard and McCarty Drive, and as far east as Wilshire Boulevard and Doheny Drive.

In general, the street network around the station follows a grid-like pattern, except for the area to the northwest of the station, which rotates the grid pattern in a 45-degree tilt. Because streets are rotated by 45 degrees, many north/ south streets do not line up directly on either side of Wilshire Boulevard.

A pedestrian shed is the area encompassed by a half-mile walking distance away from a transit station using the existing pedestrian network. Due to the existing street grid pattern around the Wilshire/ Rodeo Drive Station, a pedestrian can reach either end of the station half-mile radius, and most locations to the north and south of the study area.

The half-mile radius around the Wilshire/ Rodeo Station features many streets with high vehicular speeds. Streets classified as Highway/ Freeway, Arterial, or Collector by Caltrans in their Street Hierarchy dataset were determined as streets with high vehicle speeds. Streets identified with high vehicular speeds are:

- Santa Monica Boulevard

- Burton Way
- Beverly Drive
- Wilshire Boulevard
- Olympic Boulevard

Bicycle and pedestrian collisions were identified from 2013 to 2017 to determine specific areas within a half-mile of the station that see higher rates of active transportation collisions. Over this 5-year period, the highest rate of collisions was on Beverly Drive, Wilshire Boulevard, and Santa Monica Boulevard. There were over 65 bicycle or pedestrian collisions within a half-mile of the Wilshire/ Rodeo Drive Station from 2013 to 2017.

Key access corridors were determined by using Metro's Origin/ Destination Analysis survey data and determining the locations where those who take active transportation begin or end their trip. The point data was used to determine the most logical route if that user were to access the station, and that pathway would be used to construct the key access corridor network.

Identifying bicycle connections are important to illustrate access to bicyclists, either by Class I bike paths or Class II bike lanes. Bicycle infrastructure is crucial to identify in a 3-mile radius rather than a half-mile radius, as bicyclists understandably have a greater travel range than a pedestrian. There is a limited number of bike lanes or bike paths under the existing conditions within a half-mile radius of the station.

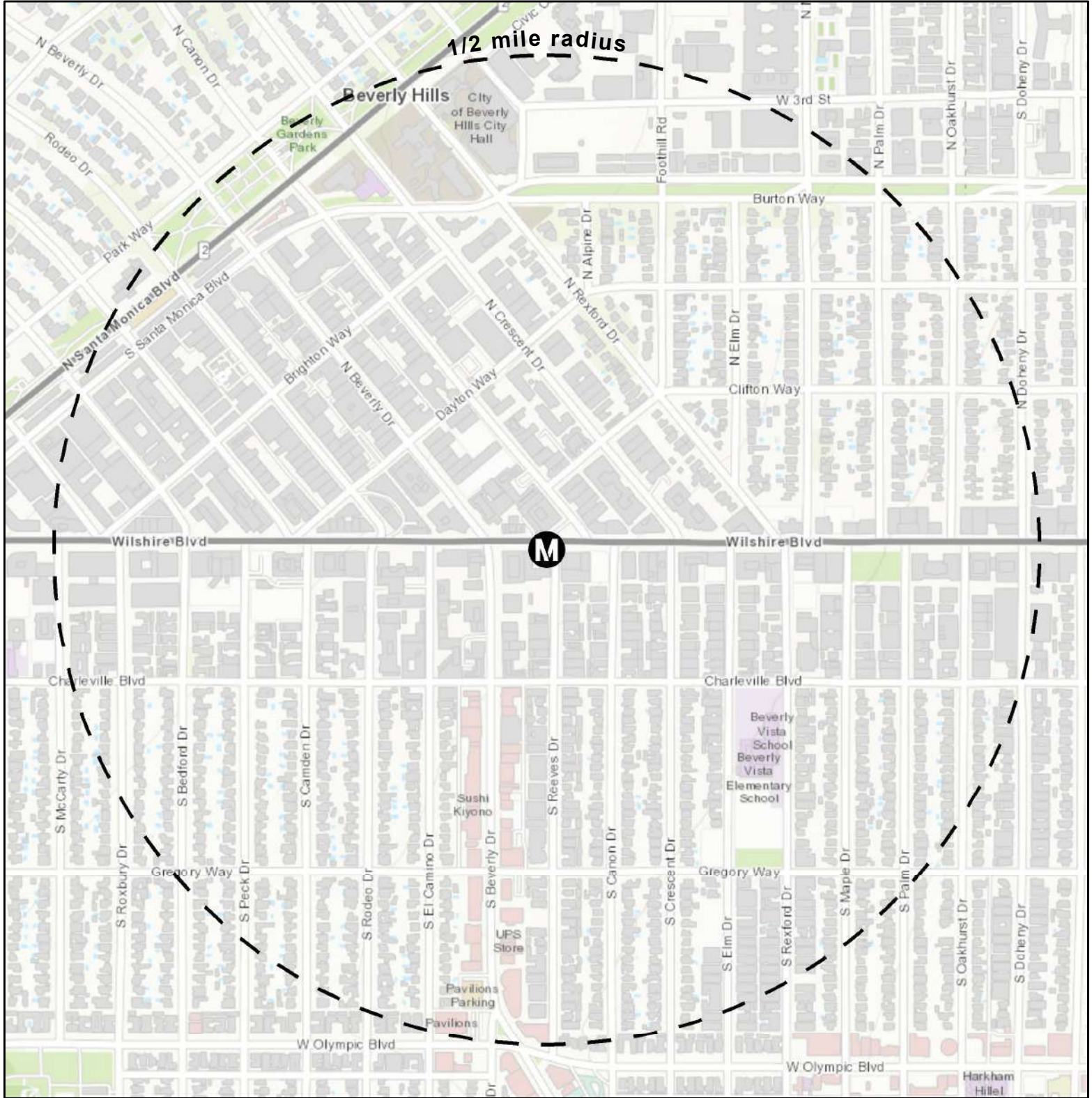
Three existing bus transit lines intersect the Wilshire/ Rodeo Station. Six bus transit lines currently operate within the half-mile radius.

Identifying land use in the half-mile radius study area is crucial in identifying the type of users the Purple Line will service. There are commercial, office, and multi-family uses directly adjacent to the station. There are single-family residential and public facility land uses also in the remainder of the half-mile station walkshed.

Access-related station area characteristics for the Wilshire/ Rodeo Station are found in Figures 2.1 through 2.9.

Wilshire / Rodeo Station Street Grid

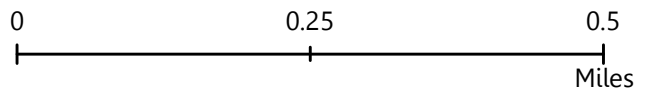
Figure 2.1



Wilshire / Rodeo Station Half-Mile Radius

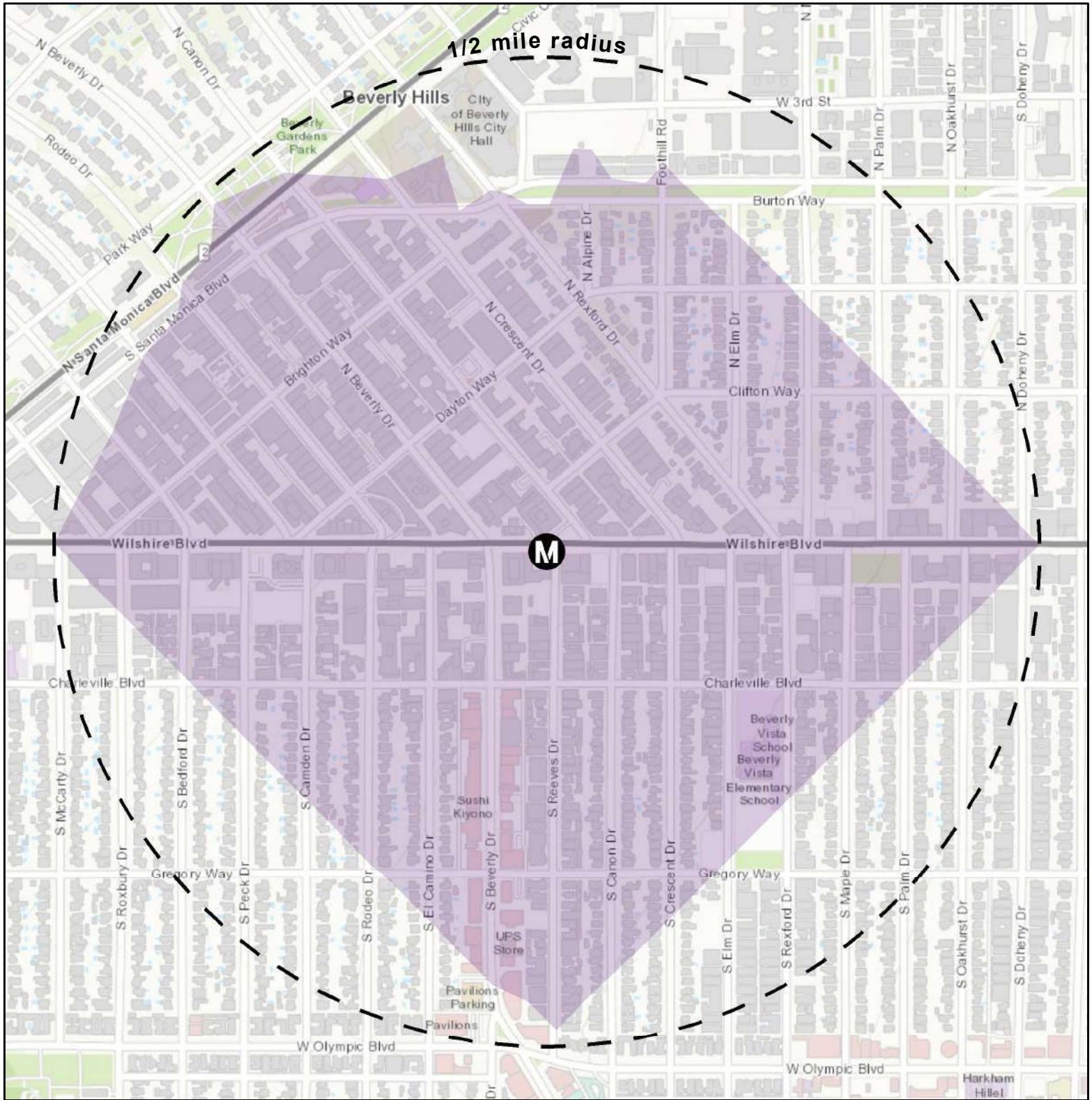


V-8



Wilshire / Rodeo Station Half-Mile Pedestrian Walk Shed

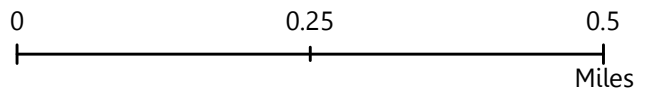
Figure 2.2



Half-Mile Pedestrian Walk Shed
 Wilshire / Rodeo Station Half-Mile Radius

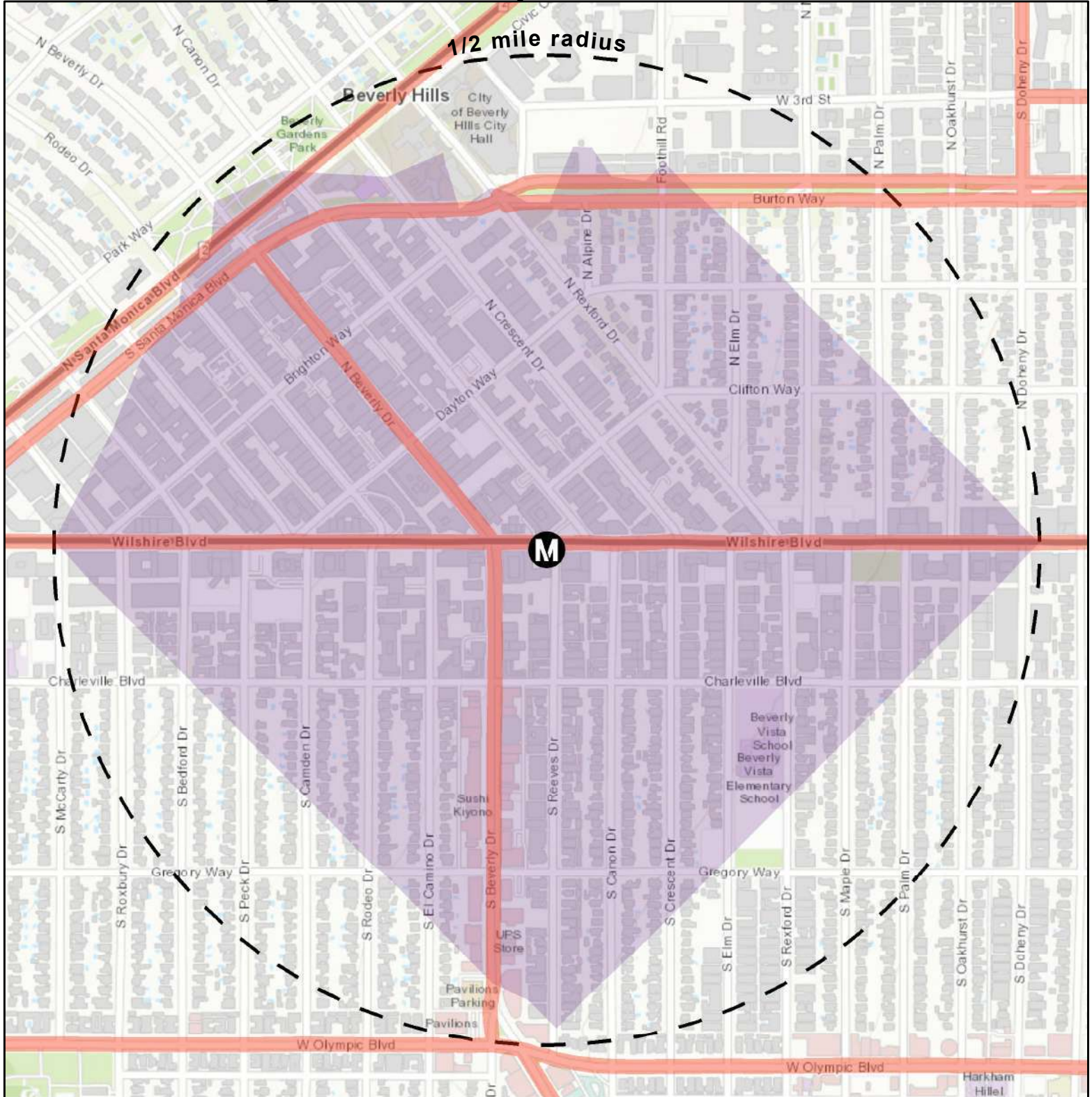


V-9



Wilshire / Rodeo Station Streets with High Vehicular Speeds

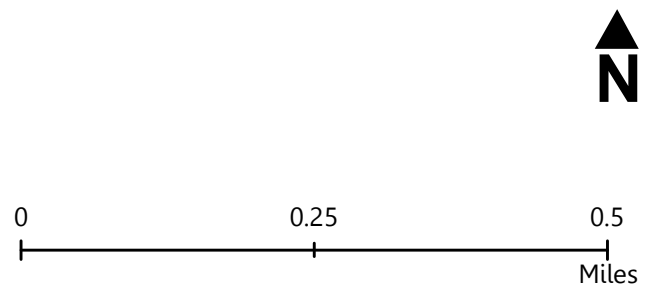
Figure 2.3



- Streets with High Vehicular Speeds
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius

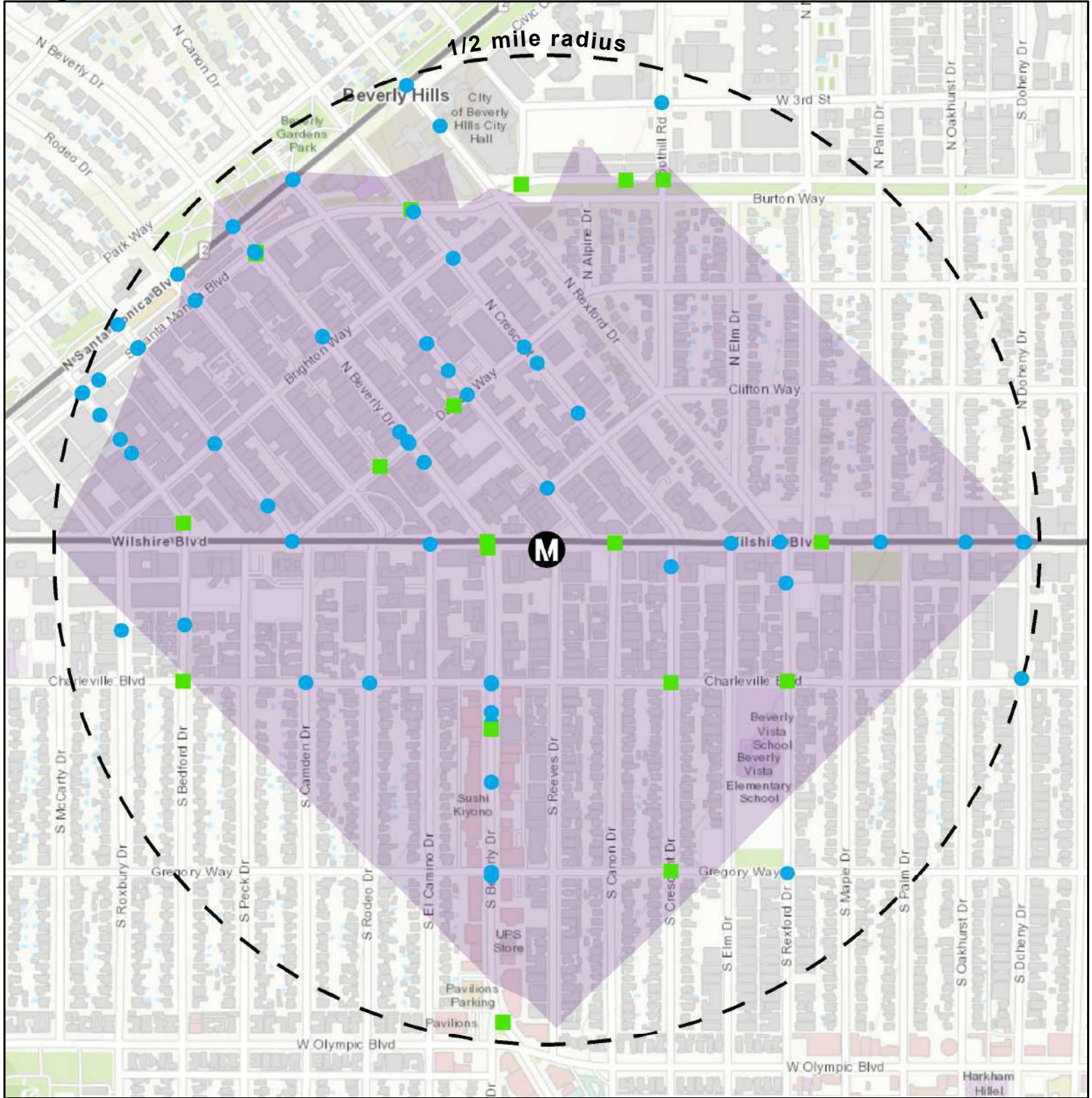


V-10



Wilshire / Rodeo Station Bicycle and Pedestrian Collisions (2013 - 2017)

Figure 2.4



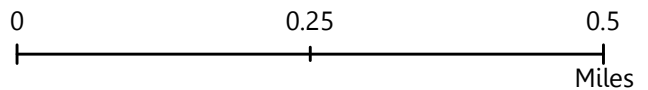
- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius



* A pedestrian fatality occurred at the intersection of 3rd St and Foothill Rd (2017)

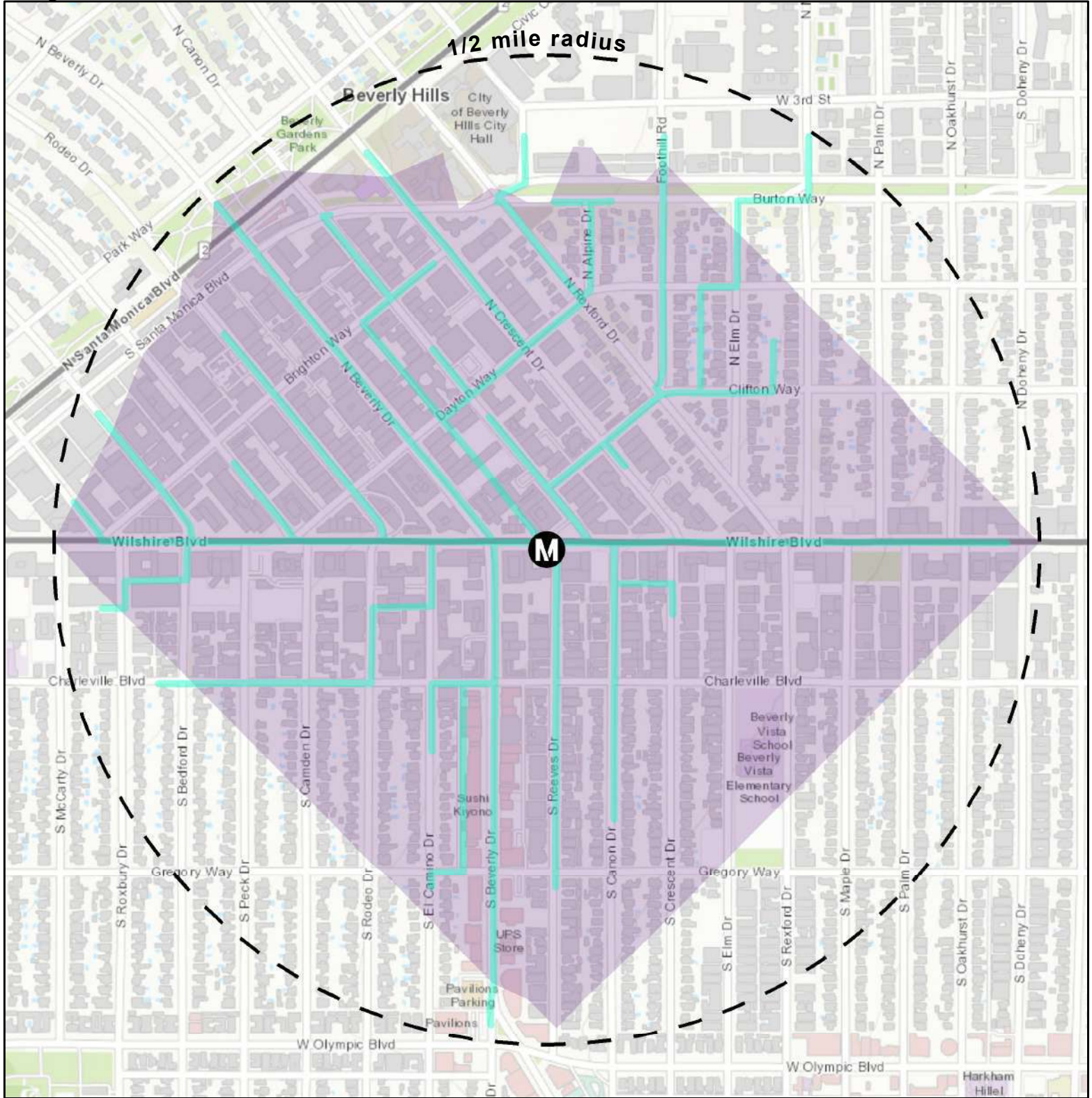


V-11



Wilshire / Rodeo Station Key Access Corridors

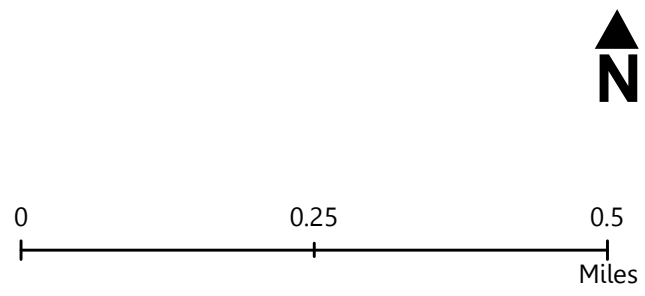
Figure 2.5



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius

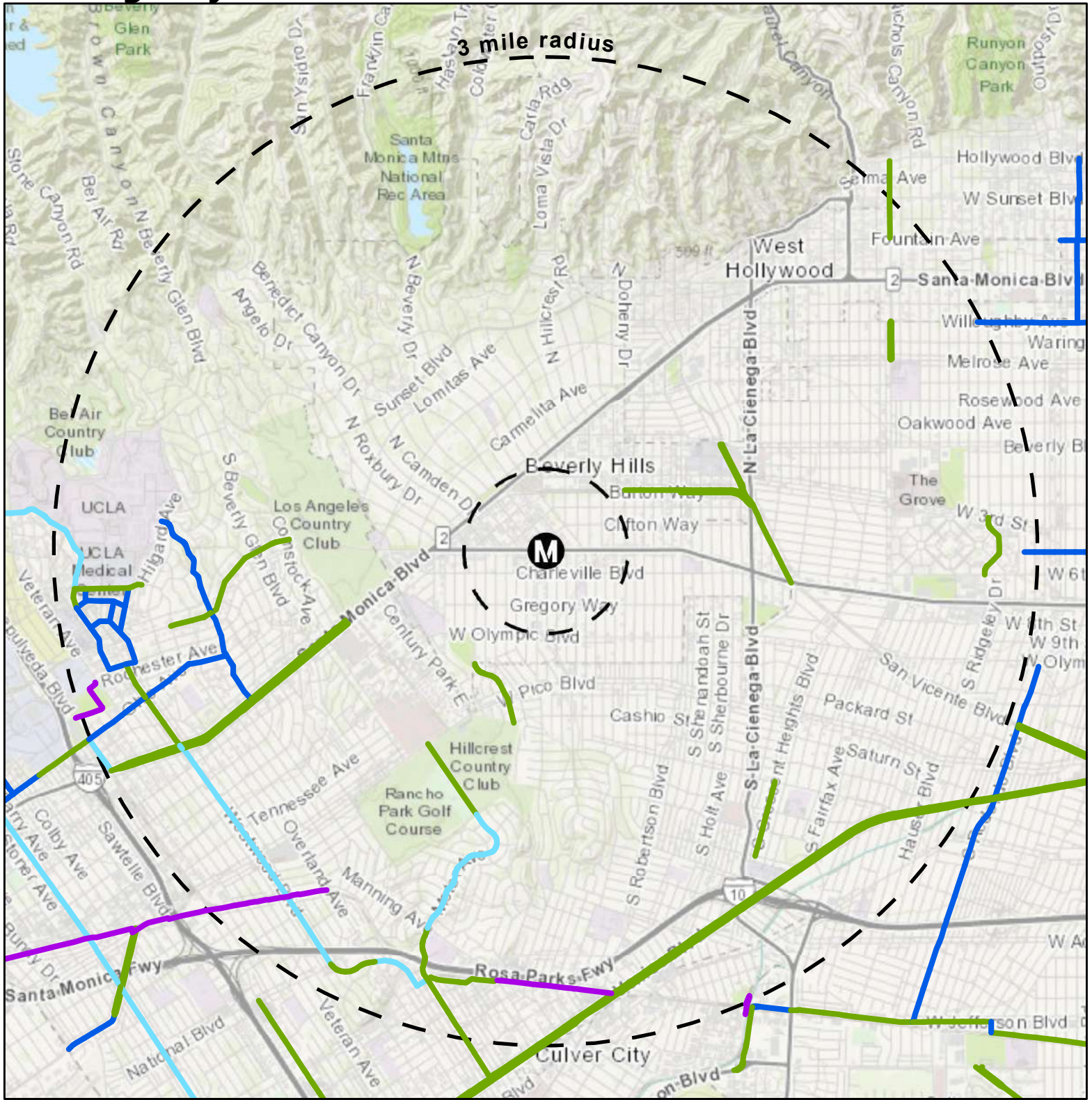


V-12



Wilshire / Rodeo Station Existing Bicycle Facilities

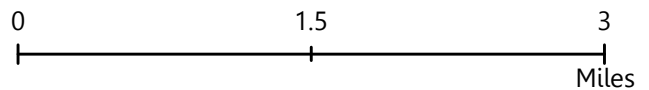
Figure 2.6



- Class I: Bike Path
- Class III: Sharrowed Bike Route
- Class II: Bike Lane
- Class III: Bike Route
- Wilshire / Rodeo Station Half-Mile and Three-Mile Radii

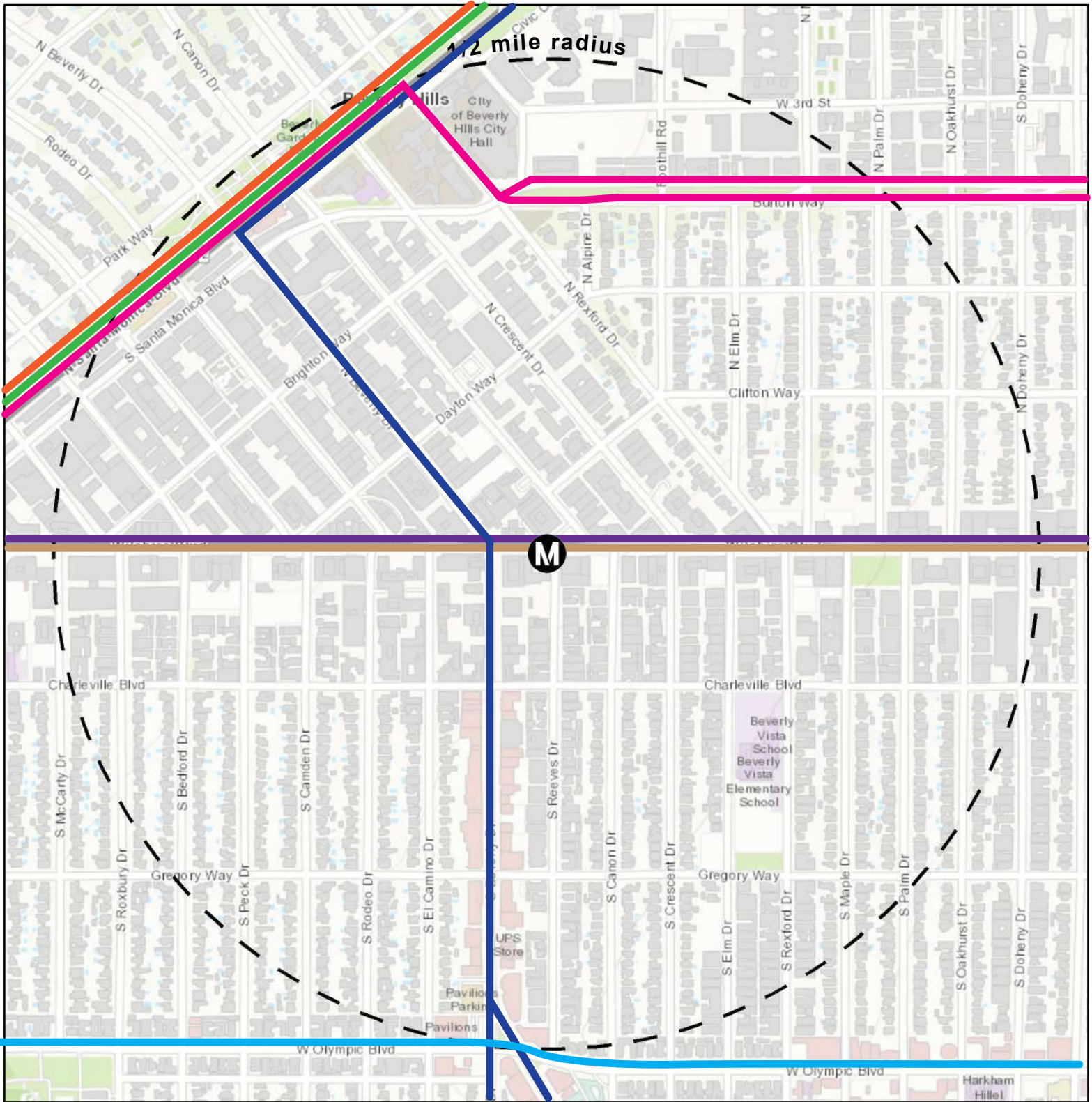


V-13



Wilshire / Rodeo Station Bus Transit Routes

Figure 2.7

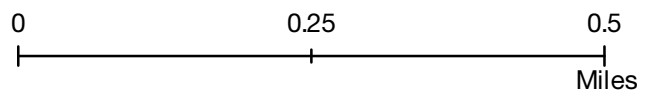


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- Route 704 Route 720 Route 16 Route 14
- Route 4 Route 20 Route 28, 728

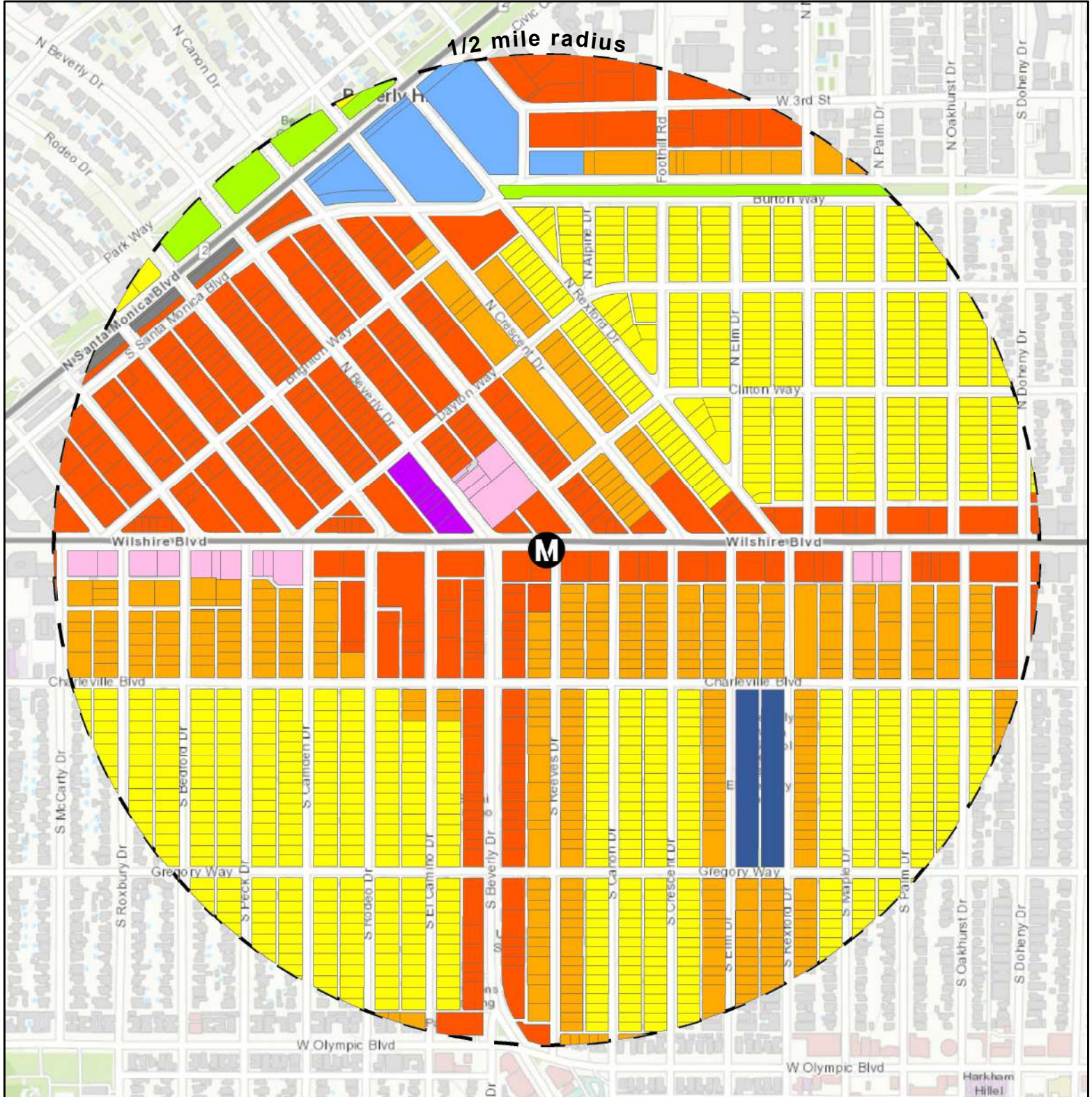


V-14



Wilshire / Rodeo Station Land Use

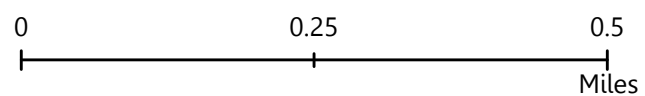
Figure 2.8



- | | | |
|----------------------------|---------------------|-------------------|
| Low-Density Residential | Commercial | Public Facilities |
| Medium-Density Residential | Regional Commercial | Open Space |
| Mixed Use | Public School | Parking |

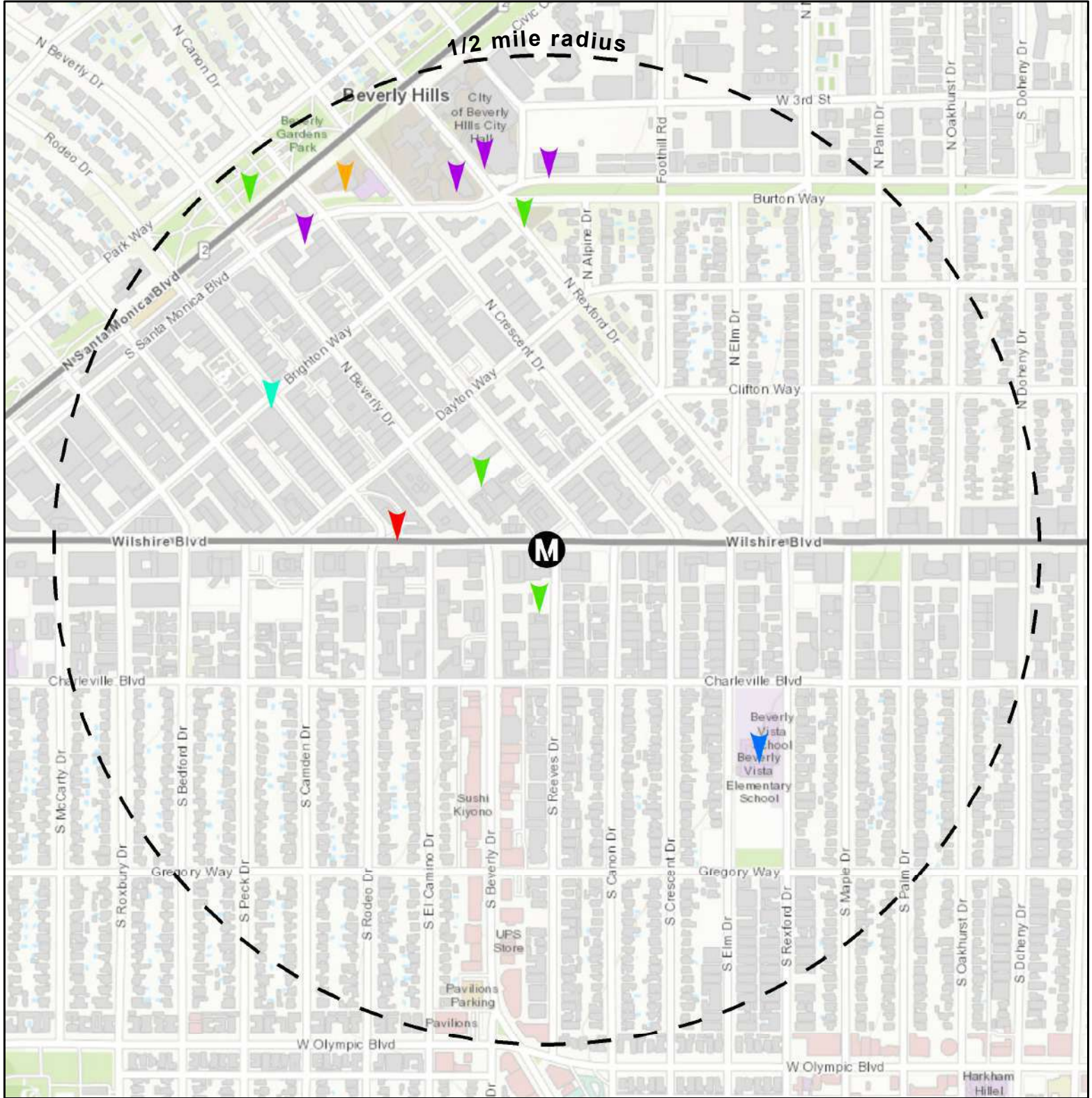


V-15



Wilshire / Rodeo Station Points of Interest

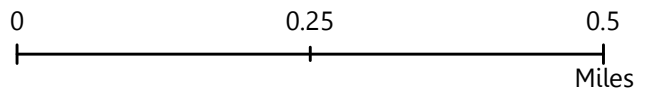
Figure 2.9



- Art
- Education
- Public
- Wilshire / Rodeo Station Half-Mile Radius
-
- Attraction
- Open Space
- Shopping



V-16



2.2. Century City / Constellation Station

The Century City/ Constellation Station is proposed to be located at the northeast corner of Constellation Boulevard and Avenue of the Stars, in the heart of Century City. This station is situated in the center of one of the county's biggest job hubs, and it is anticipated it will attract thousands of riders to the Purple Line for their daily commute.

The Century City/ Constellation Station access portal is proposed to be located at the northeast corner of Constellation Boulevard and Avenue of the Stars.

A half-mile radius around this station location extends as far north as Wilkins Avenue and Club View Drive, and as far south as Olympic Boulevard and Century Park West. In addition, a half-mile radius reaches as far west as Santa Monica Boulevard and Beverly Glen Boulevard, and as far east as Olympic Boulevard and Linden Drive.

In general, the immediate area surrounding the station follows a 'four-square' pattern, with few local streets and large blocks. The surrounding area within the half-mile radius follows either an organic or loose grid pattern to the northeast, northwest, and southwest. There is no street network to the north due to the presence of Los Angeles Country Club Golf Course.

A pedestrian shed is the area encompassed by a half-mile walking distance away from a Purple Line station using the existing pedestrian network. Due to the long blocks and limited street grid around the Century City/ Constellation Station, a pedestrian cannot reach too far north, east or west. The half-mile pedestrian shed does not extend very far into existing residential neighborhoods nearby.

The half-mile radius around the Century City/ Constellation Station features many streets with high vehicular speeds. Streets classified as Highway/Freeway, Arterial, or Collector by Caltrans in their Street Hierarchy dataset were determined as streets with high vehicle speeds. Streets identified with high vehicular speeds are:

- Santa Monica Boulevard
- Century Park East
- Century Park West
- Olympic Boulevard
- Avenue of the Stars
- Beverly Glen Boulevard

Bicycle and pedestrian collisions were identified from 2013 to 2017 to determine specific areas within a half-mile of the station that see higher rates of active transportation collisions. Over this 5-year period, the highest rate of collisions were on Santa Monica Boulevard and Olympic Boulevard. There were 22 bicycle or pedestrian collisions within a half-mile of the Century City/ Constellation Station from 2013 to 2017.

Key access corridors were determined by using Metro's Origin/ Destination Analysis survey data and determining the locations where those who take active transportation begin or end their trip. The point data was used to determine the most logical route if that user were to access the station, and that pathway would be used to construct the key access corridor network.

Identifying bicycle connections are important to illustrate access to bicyclists, either by Class I bike paths or Class II bike lanes. Bicycle infrastructure is crucial to identify in a 3-mile radius rather than a half-mile radius, as bicyclists understandably have a greater travel range than a pedestrian. There is one bike path within a half-mile radius of the station, on Santa Monica Boulevard.

Although no transit line directly accesses the Century City/ Constellation Station, seven existing bus transit lines operate within the half-mile radius. The Big Blue Bus and the Culver CityBus have one route each that extend to the Century City /Constellation area.

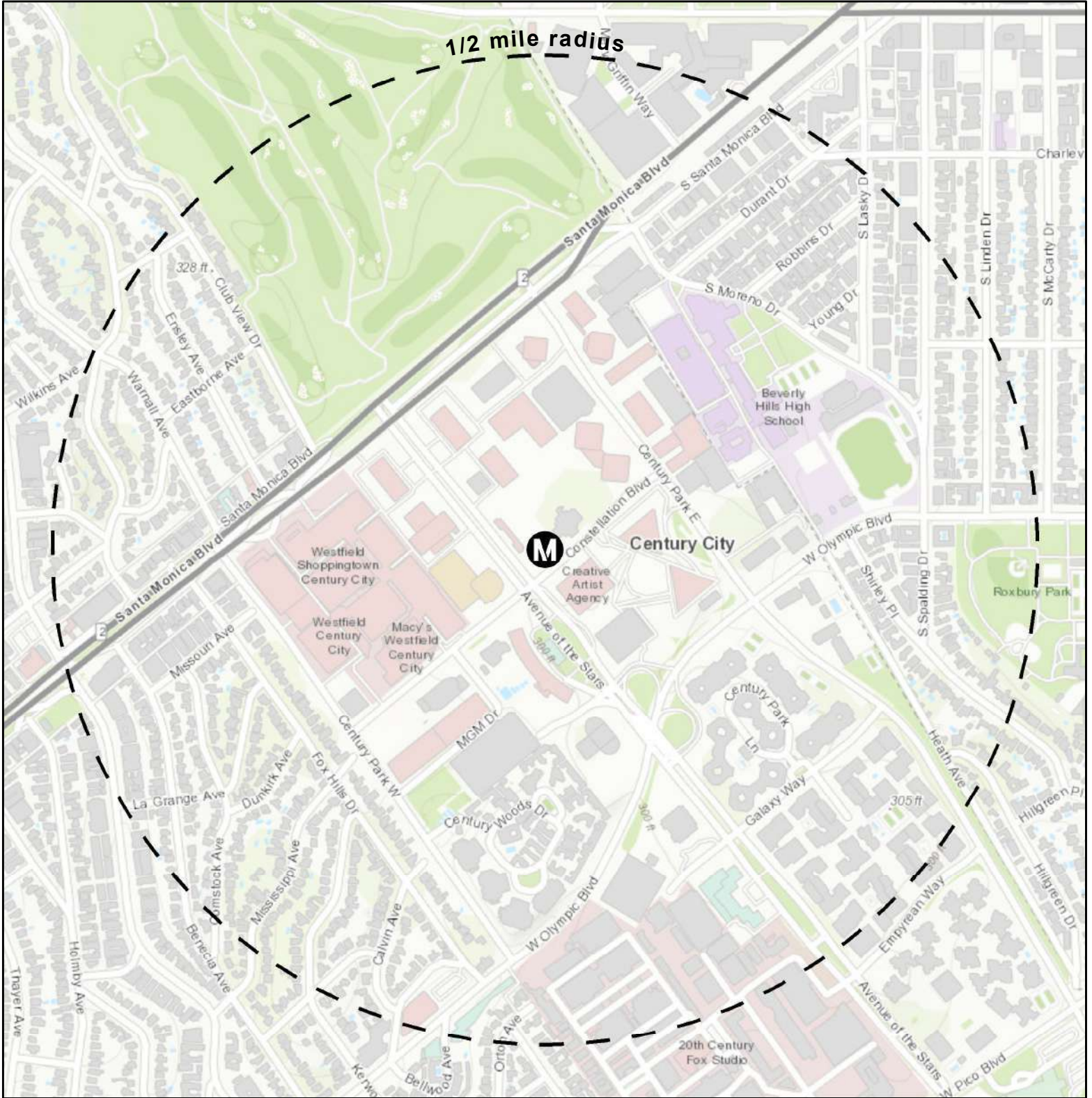
Identifying land use in the half-mile radius study area is crucial in identifying the type of users of the Purple Line will service. Major land uses around the station include Westfield Century City Mall, numerous office buildings, Fox Studios, as well as multi-family and single-family residential uses.

Transit stations are typically located near points of interest to maximize the half-mile pedestrian shed. There are many points of interest within a half-mile radius of the Century City/ Constellation Station, including Westfield Century Mall, Beverly Hills High, Fox Studios, and a few performing arts theatres.

Access-related station area characteristics for the Century City/ Constellation Station are found in Figures 2.10 through 2.18.

Century City / Constellation Station Street Grid

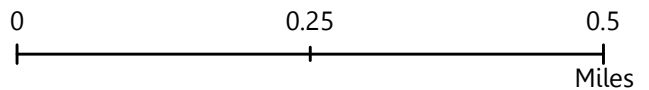
Figure 2.10



Century City / Constellation Station Half-Mile Radius

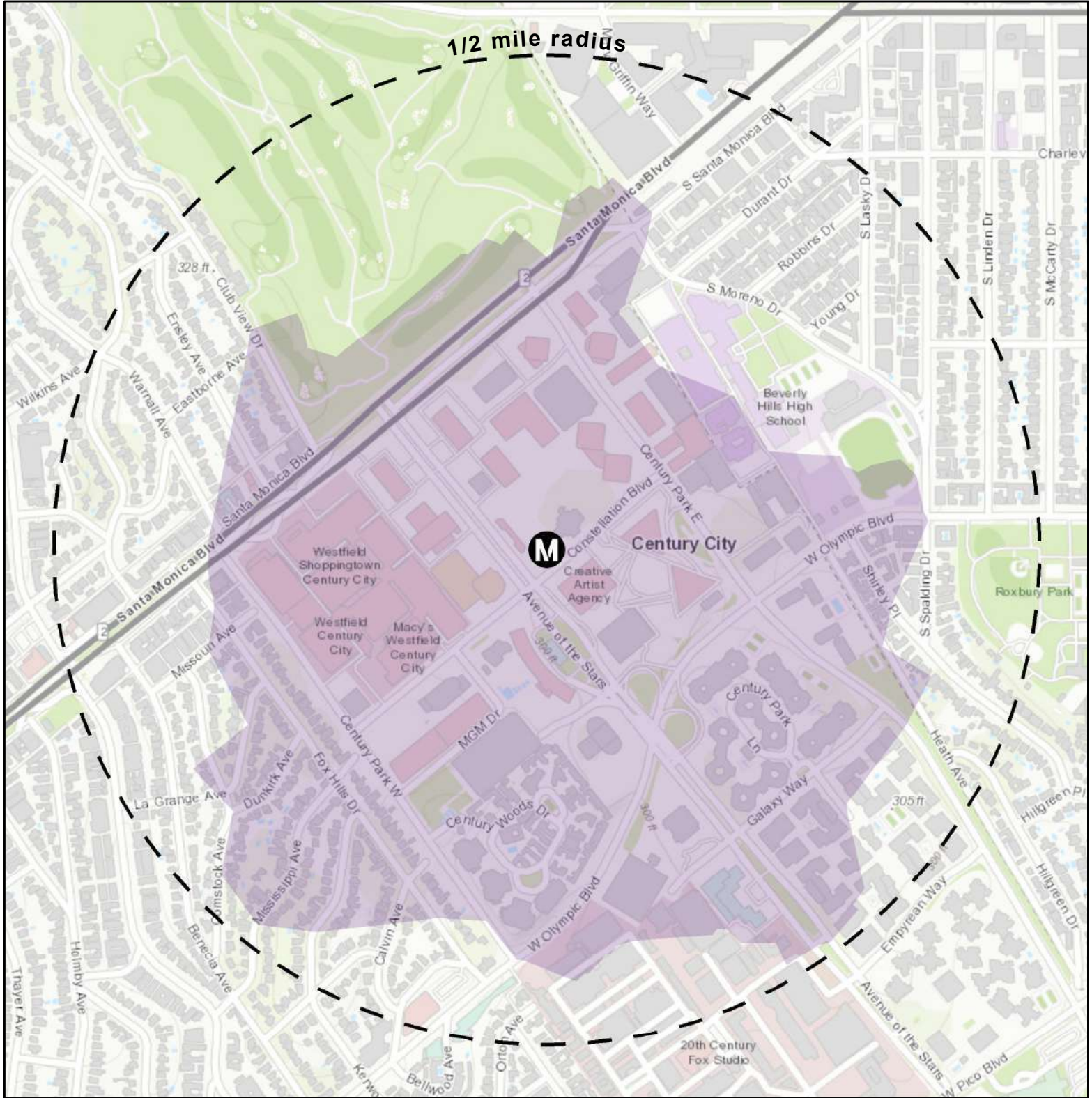


V-19



Century City / Constellation Station Half-Mile Pedestrian Walk Shed

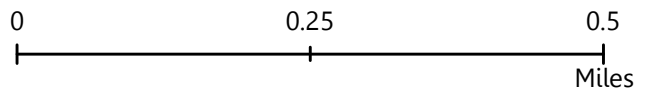
Figure 2.11



- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

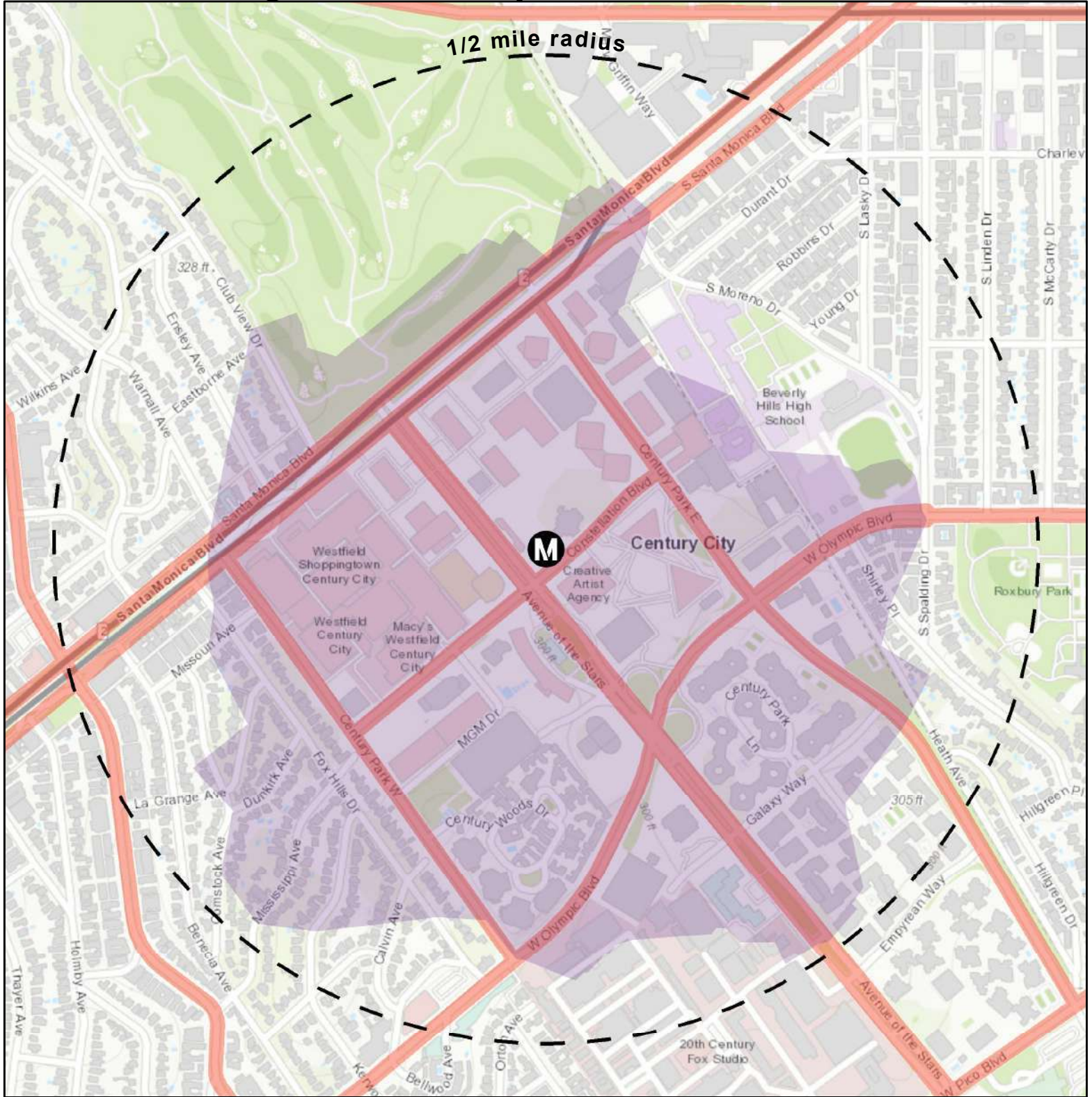


V-20



Century City / Constellation Station Streets with High Vehicular Speeds

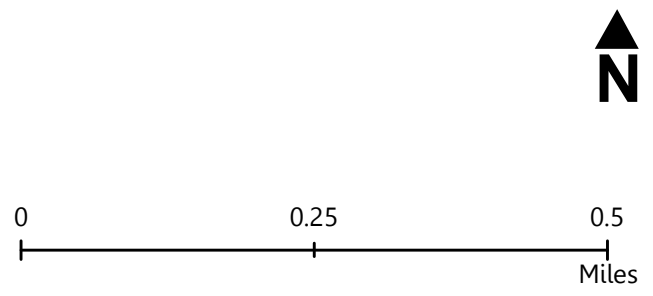
Figure 2.12



- Streets with High Vehicular Speeds
- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

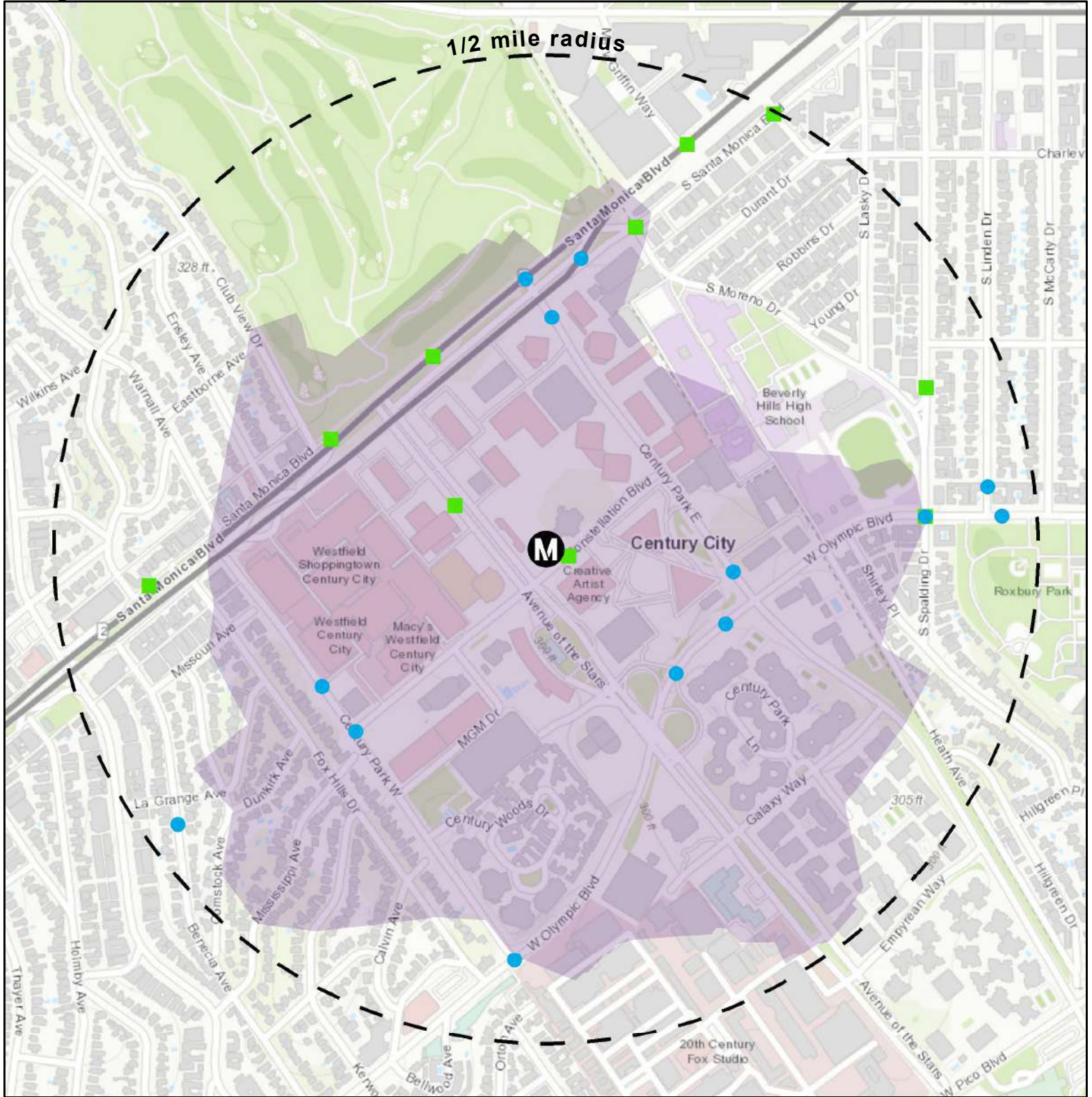


V-21



Century City / Constellation Station Bicycle and Pedestrian Collisions (2013 - 2017)

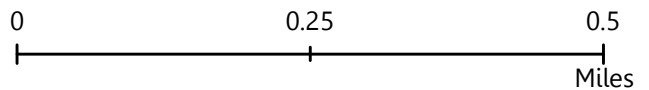
Figure 2.13



- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

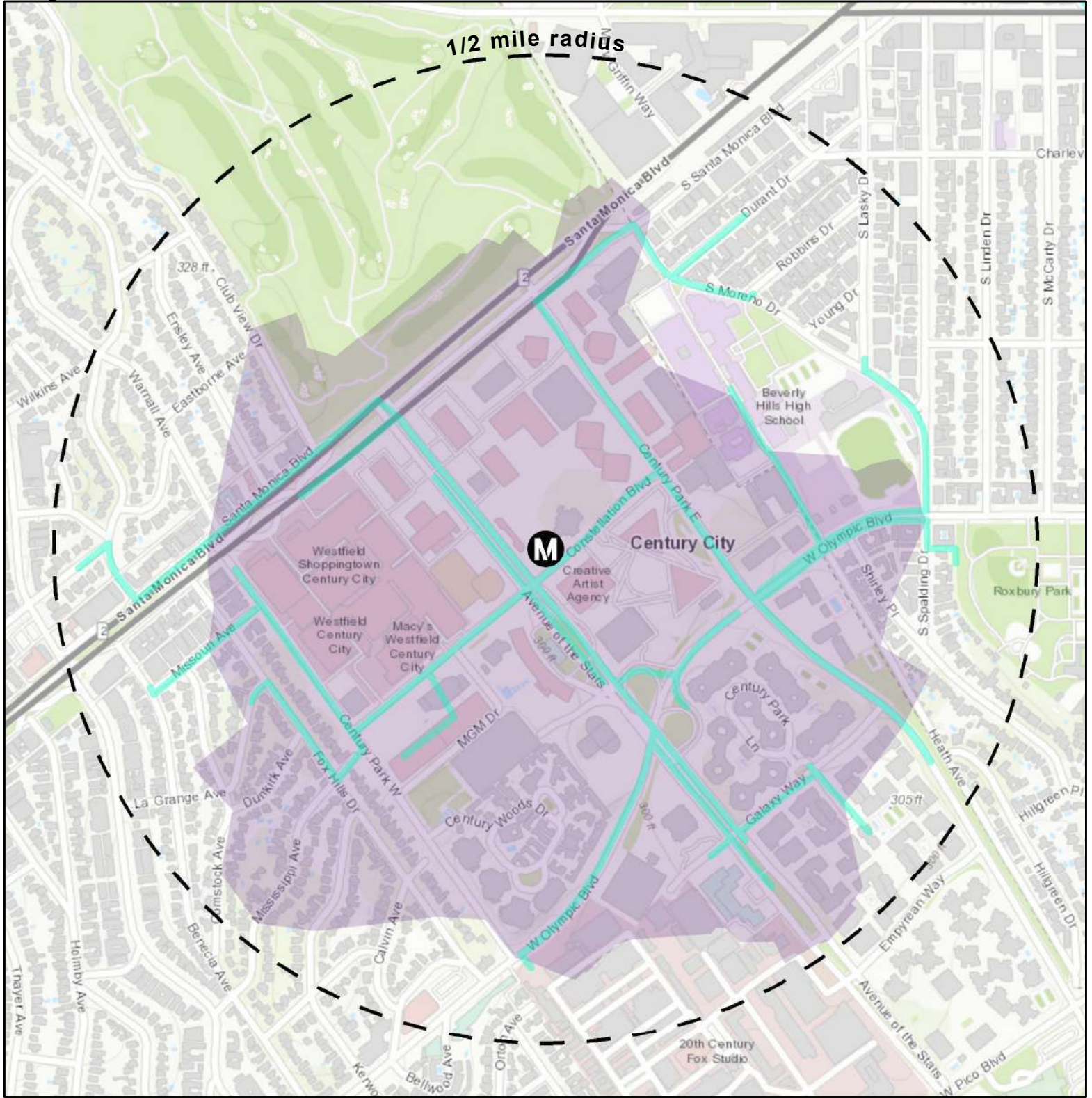


V-22



Century City / Constellation Station Key Access Corridors

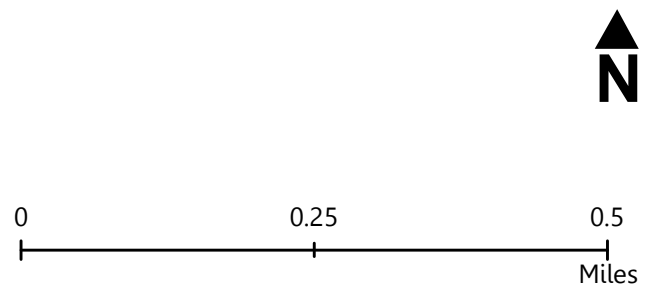
Figure 2.14



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

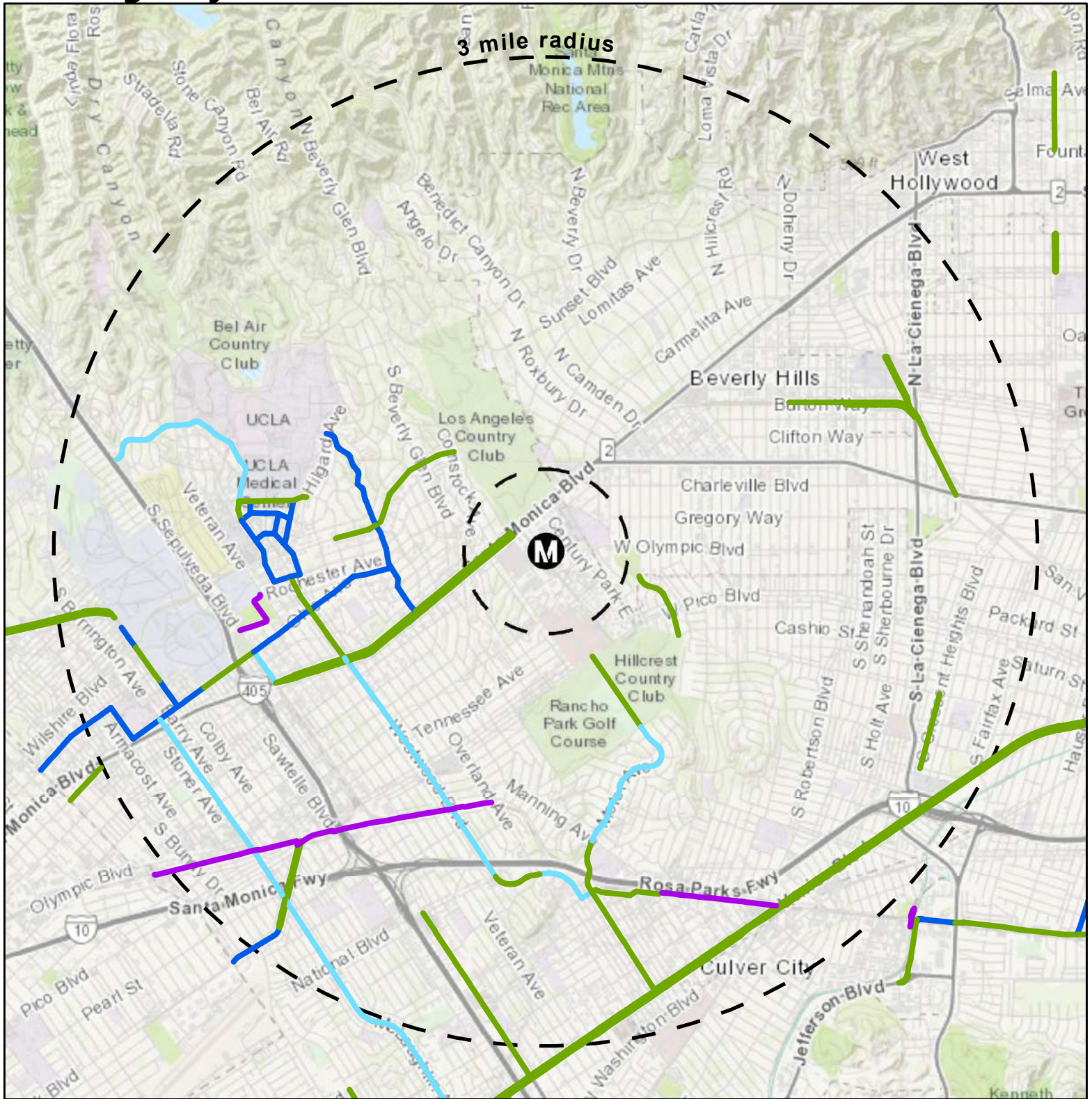


V-23



Century City / Constellation Station Existing Bicycle Facilities

Figure 2.15



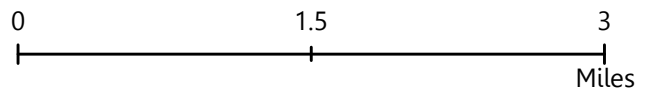
— Class I: Bike Path
 — Class III: Sharrowed Bike Route

— Class II: Bike Lane
 — Class III: Bike Route

 Century City / Constellation Station Half-Mile and Three-Mile Radii

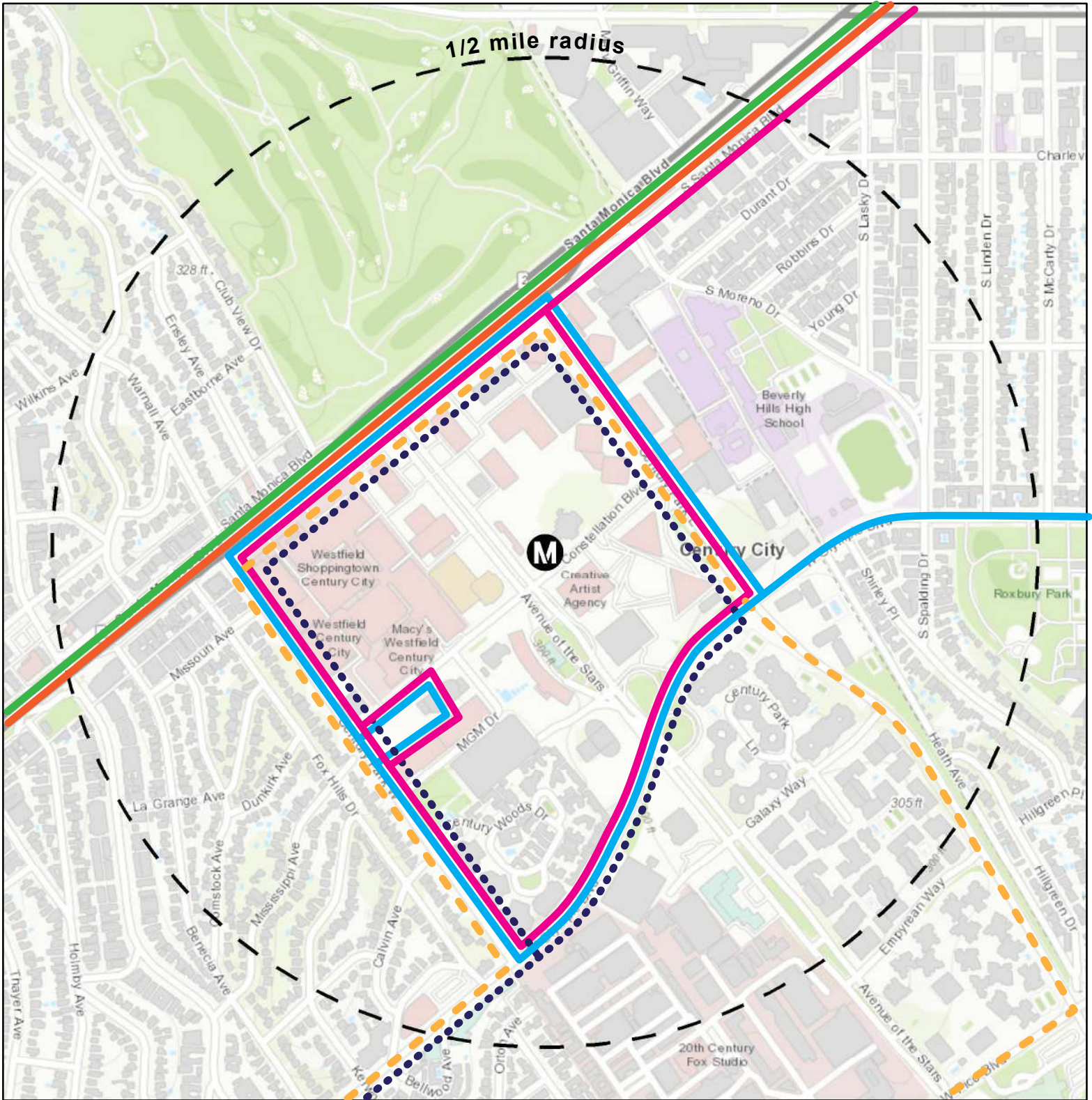


V-24



Century City / Constellation Station Bus Transit Routes

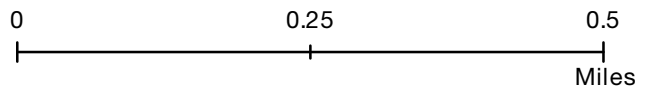
Figure 2.16



- | | | |
|---|--|--|
| Metro | Big Blue Bus | Culver City Bus |
| <ul style="list-style-type: none"> Route 704 Route 4 Route 28, 728 | <ul style="list-style-type: none"> Route 5 Route 3 | <ul style="list-style-type: none"> Route 16 |

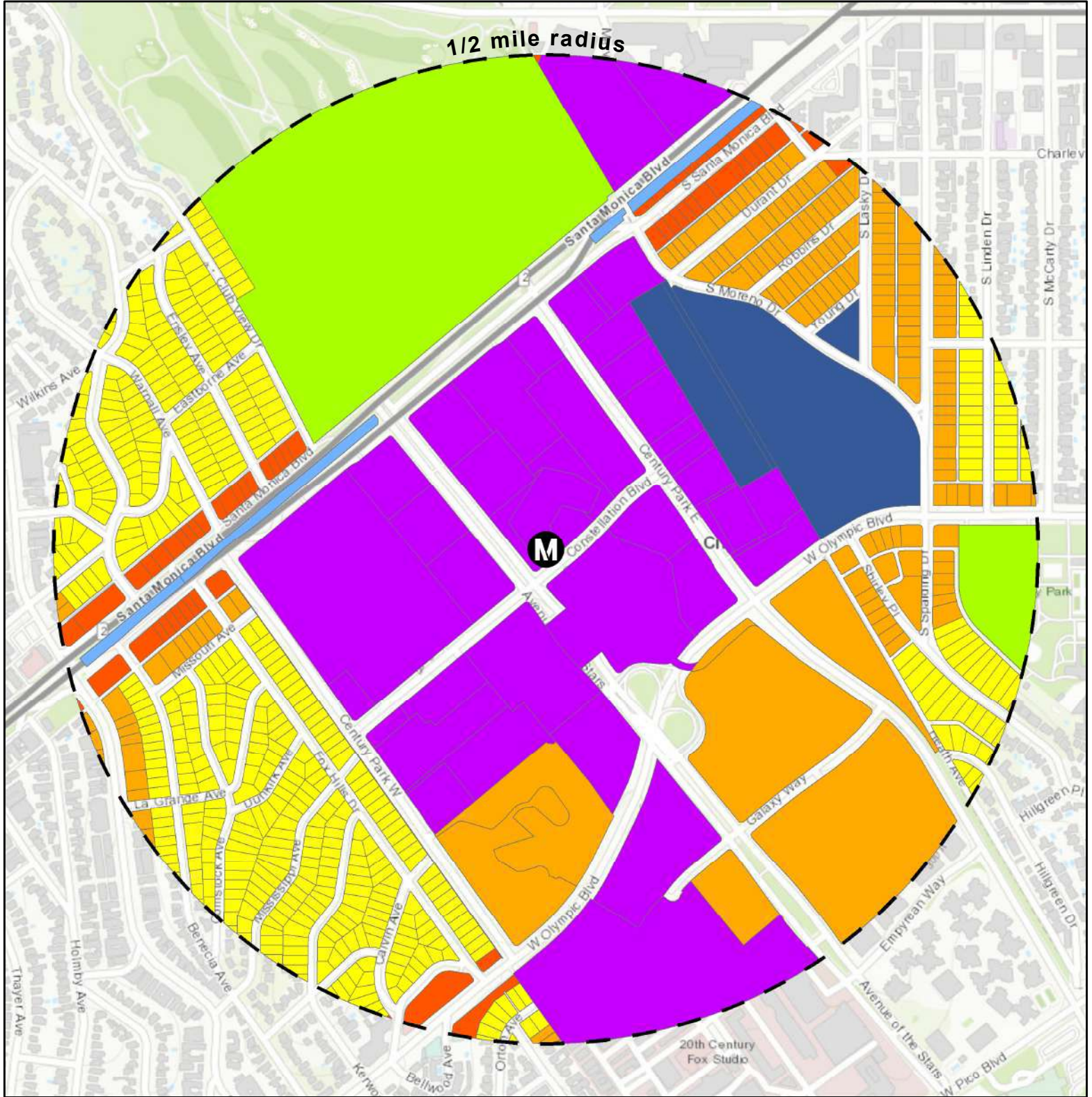


V-25



Century City / Constellation Station Land Use

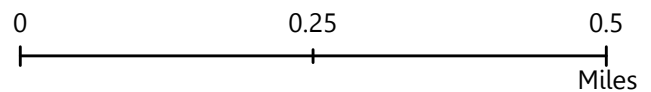
Figure 2.17



- | | | |
|---|---|--|
|  Low-Density Residential |  Commercial |  Public Facilities |
|  Medium-Density Residential |  Regional Commercial |  Open Space |
| | |  Public School |

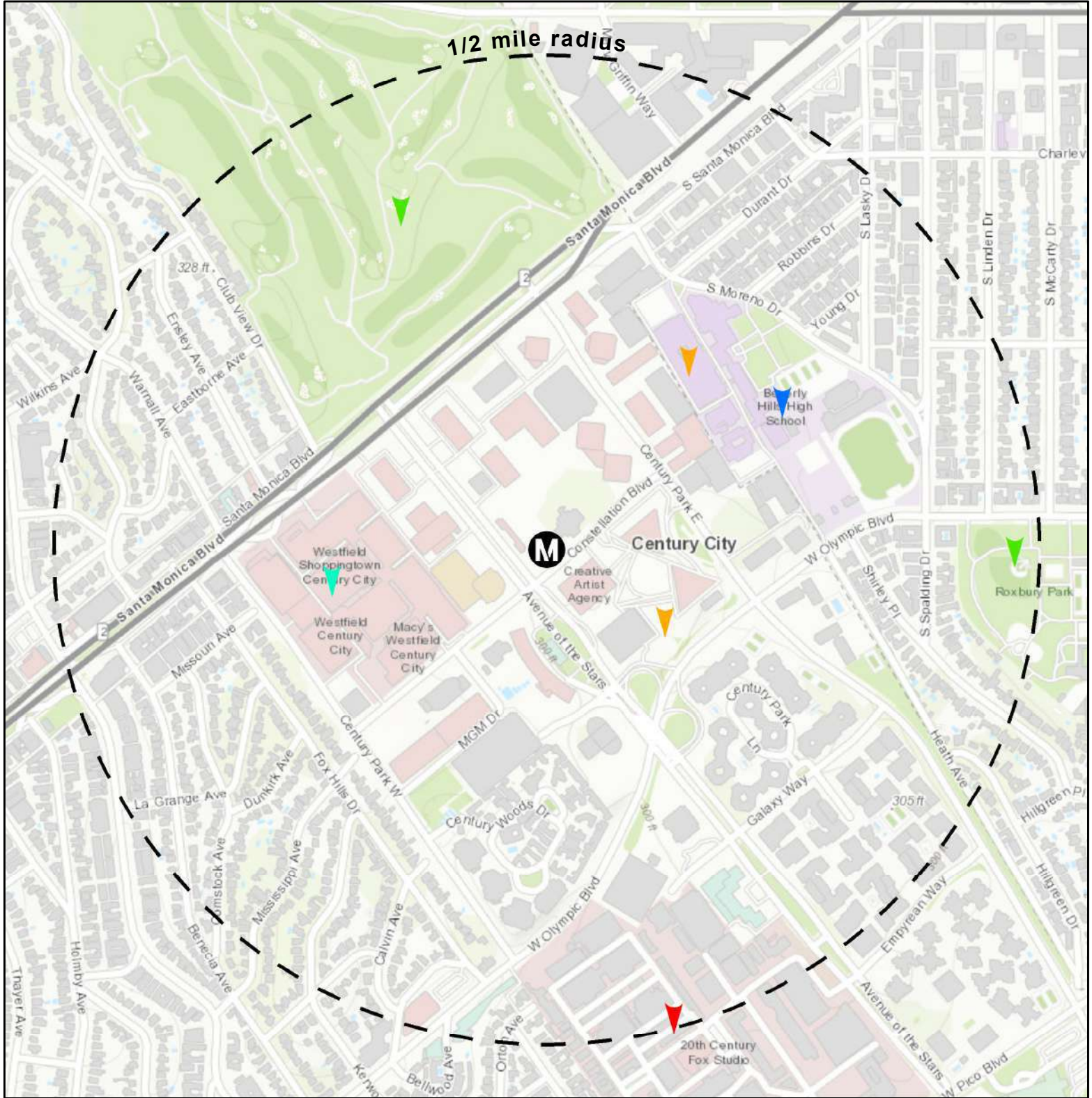








V-26



Century City / Constellation Station Points of Interest

Figure 2.18

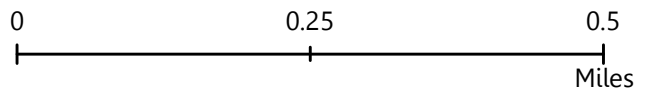


-  Art
-  Education
-  Public
-  Attraction
-  Open Space
-  Shopping

 Century City / Constellation Station Half-Mile Radius



V-27



2.3. Westwood / UCLA Station

The primary station portal for the Westwood/ UCLA Station is located at the northwest corner of Gayley Avenue and Wilshire Boulevard. Other entrances are proposed at the northwest and southwest corners of Westwood Boulevard and Wilshire Boulevard. This station, centrally located in Westwood, will provide patrons with access to the Westwood/UCLA Medical Center, the Hammer Museum, the UCLA campus, and the Westwood Village.

A half-mile radius around this station location extends as far north as Westwood Boulevard and the Stein Plaza Driveway, and as far south as Ohio Avenue and Veteran Avenue. In addition, a half-mile radius reaches as far west as Wilshire Boulevard and the I-405 Freeway, and as far east as Wilshire Boulevard and Manning Avenue.

In general, the immediate area surrounding the station follows a loose street grid pattern, with grid-like functionality that may intersect without right angles. The surrounding area within the half-mile radius features larger blocks, either due to the Westwood/UCLA Medical Campus, the Los Angeles National Cemetery, the Wilshire Federal Building, or Westwood Park.

A pedestrian shed is the area encompassed by a half-mile walking distance away from a transit station using the existing pedestrian network. Due to the loose grid pattern and small blocks around the Westwood/ UCLA Station, a pedestrian could reach practically the full extent of the half-mile radius, and well into existing nearby residential neighborhoods.

The half-mile radius around the Westwood/ UCLA Station features many streets with high vehicular speeds. Streets classified as Highway/ Freeway, Arterial, or Collector by Caltrans in their Street Hierarchy dataset were determined as streets with high vehicle speeds. Streets identified with high vehicular speeds are:

- Wilshire Boulevard
- Westwood Boulevard
- Le Conte Avenue
- Weyburn Avenue
- Gayley Avenue
- Tiverton Avenue
- Hilgard Avenue
- Midvale Avenue
- Veteran Avenue
- Sepulveda Avenue
- Ohio Avenue
- The I-405 Freeway

Bicycle and pedestrian collisions were identified from 2013 to 2017 to determine specific areas within a half-mile of the station that see higher rates of active transportation collisions. Over this 5-year period, the rate of collisions were spread evenly throughout the study area. There were over 90 bicycle or pedestrian collisions within a half-mile of the Westwood/UCLA Station area from 2013 to 2017.

Key access corridors were determined by using Metro's Origin/ Destination Analysis survey data and determining the locations where those who take active transportation begin or end their trip. The point data was used to determine the most logical route if that user were to access the station, and that pathway would be used to construct the key access corridor network.

Identifying bicycle connections are important to illustrate access to bicyclists, either by Class I bike paths or Class II bike lanes. Bicycle infrastructure is crucial to identify in a 3-mile radius rather than a half-mile radius, as bicyclists understandably have a greater range than a pedestrian. There are numerous bike facilities currently located within a half-mile radius of the station, including on Westwood Boulevard south of Wilshire Boulevard.

There are ten existing bus transit lines that operate adjacent to the planned Westwood/ UCLA Station. There are two additional lines that operates within the half-mile radius study area. The Big Blue Bus operates five routes in the vicinity, while the Culver CityBus has one route that extends to Westwood.

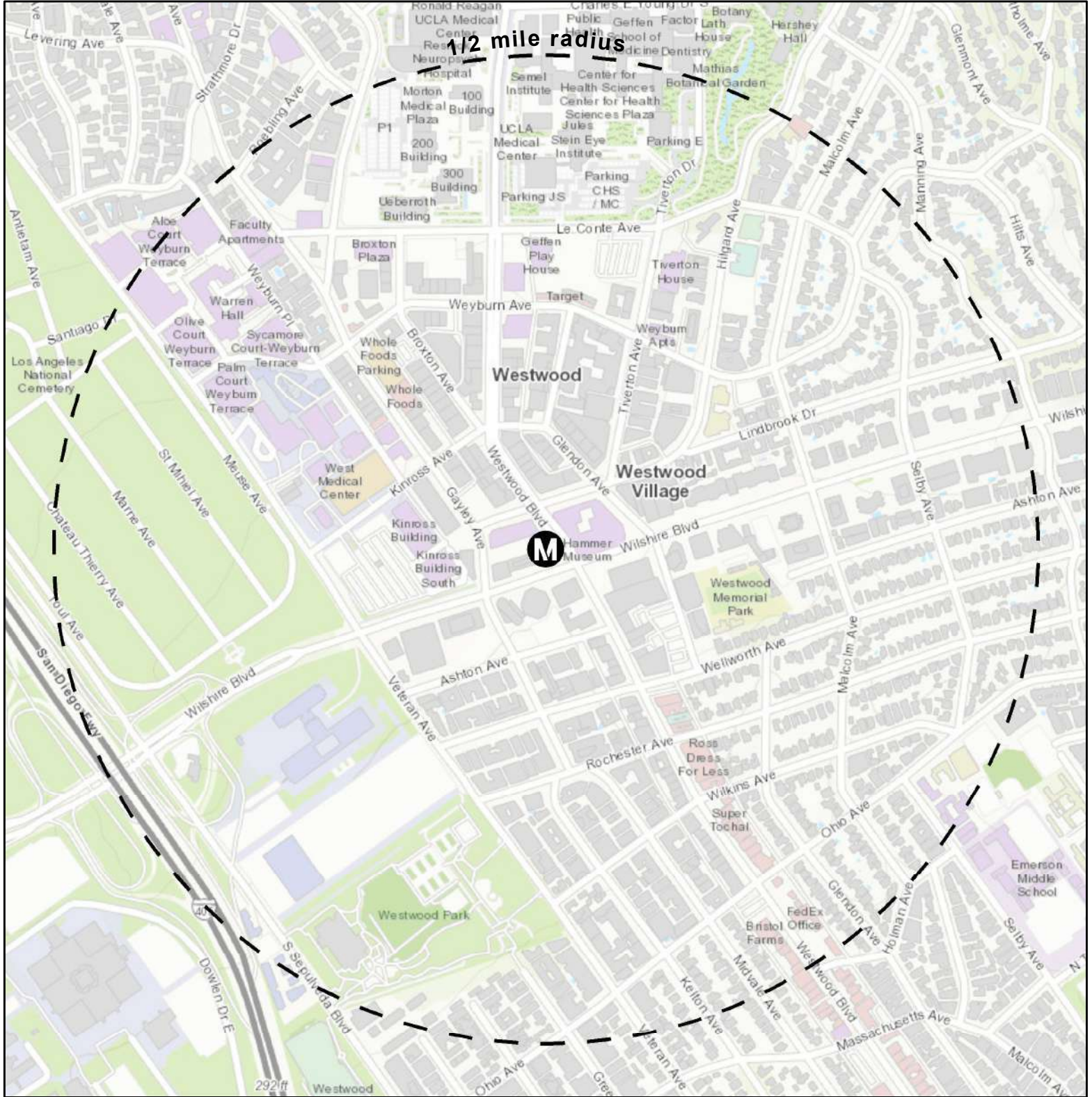
Identifying land use in the half-mile radius study area is crucial in identifying the type of users the Purple Line will service. There is a wide range of uses in the study area, including single-family, multi-family, office, commercial, public facilities, education, and open space.

Transit stations are typically located near points of interest to maximize the half-mile pedestrian shed. There are many points of interest within a half-mile radius of the Westwood/ UCLA Station, including the UCLA campus, the Wilshire Federal Building, and multiple parks, museums, and theatres.

Access-related station area characteristics for the Westwood/ UCLA Station are found in Figures 2.19 through 2.27.

Westwood / UCLA Station Street Grid

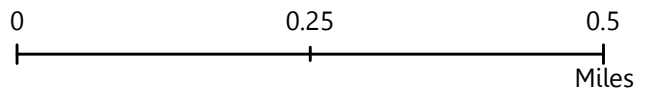
Figure 2.19



 Westwood / UCLA Station Half-Mile Radius

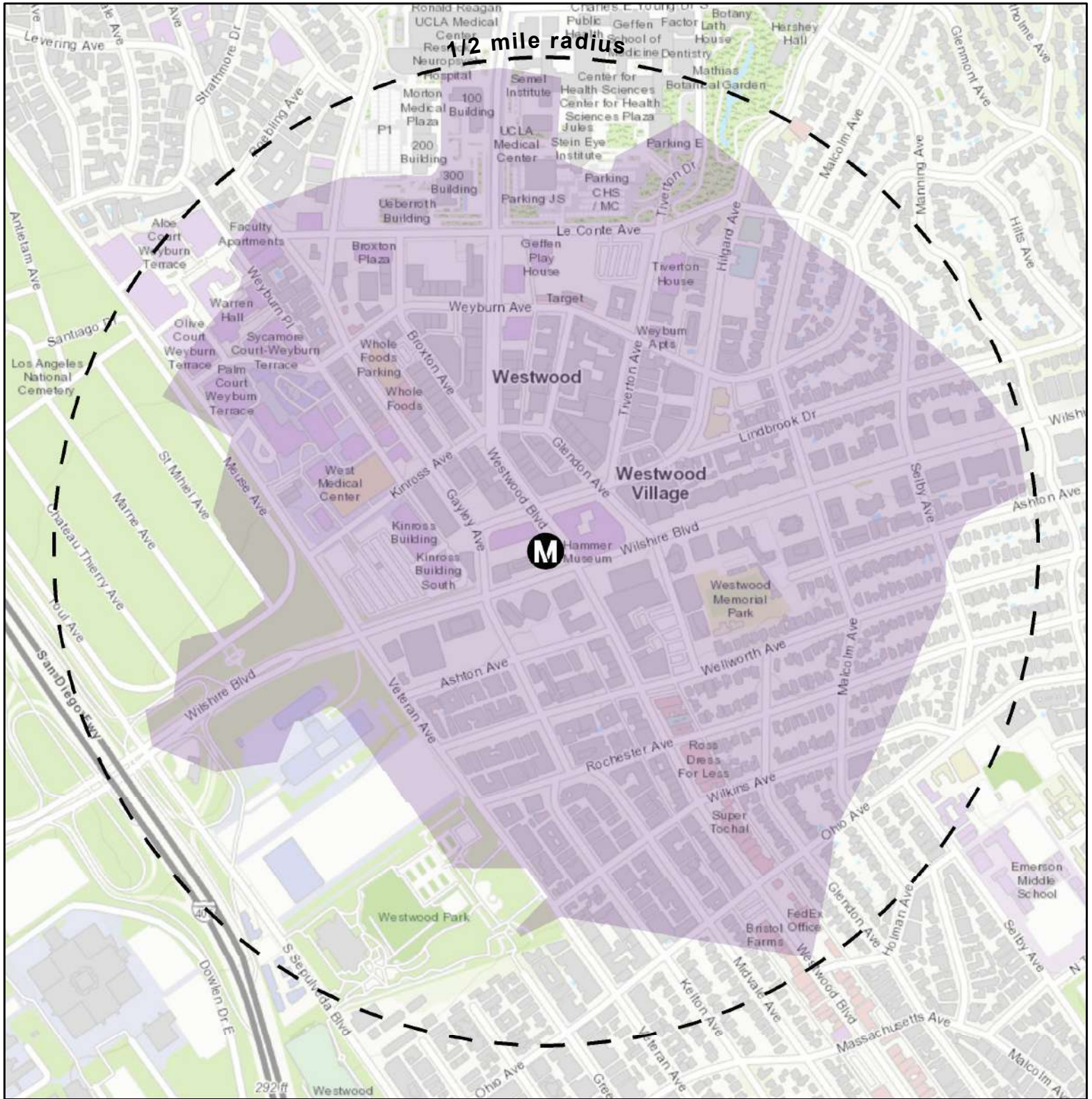


V-30



Westwood / UCLA Station Half-Mile Pedestrian Walk Shed

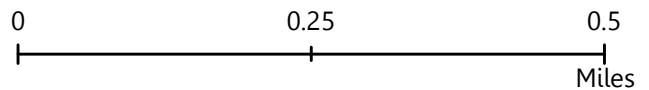
Figure 2.20



- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

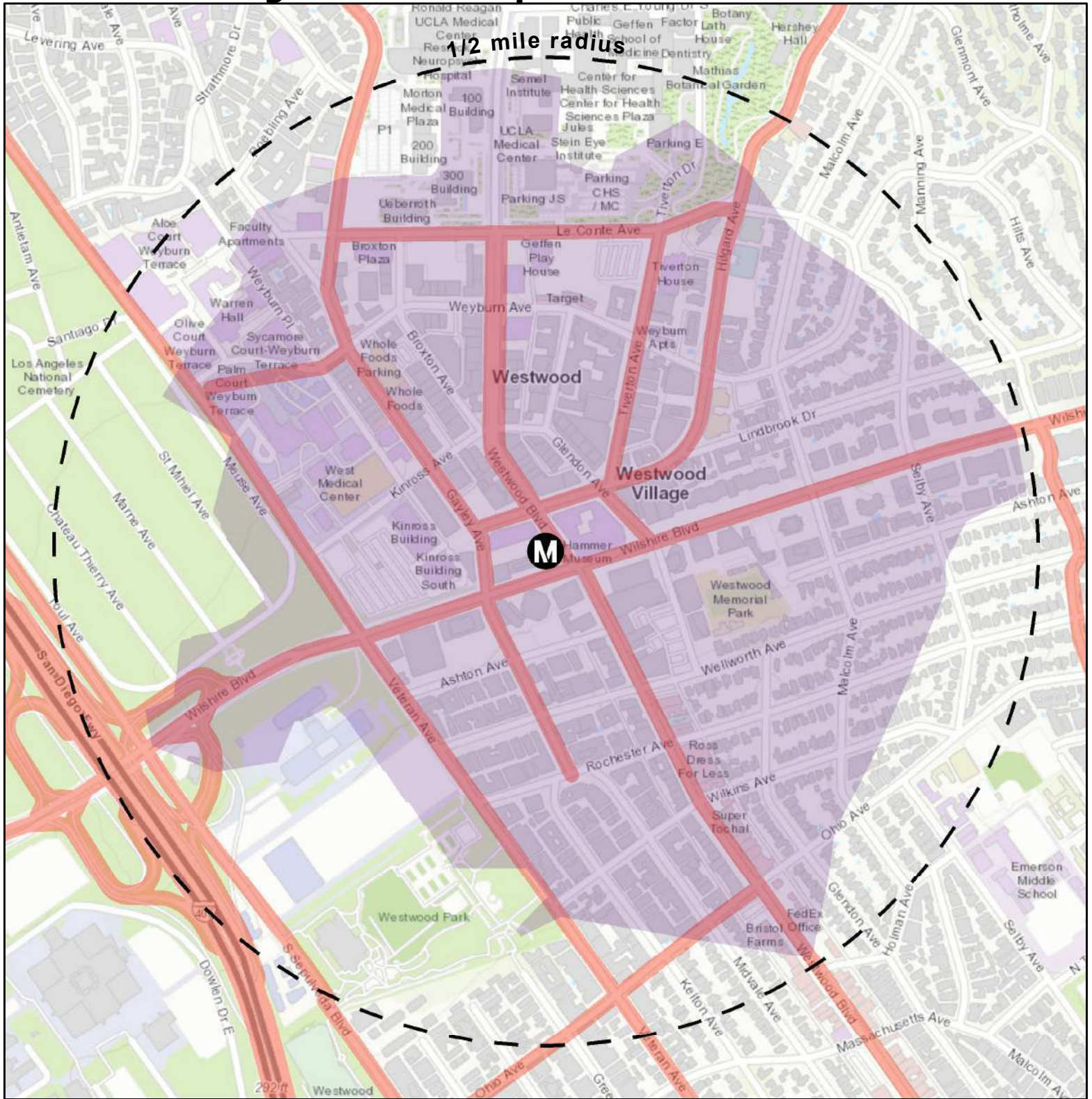


V-31



Westwood / UCLA Station Streets with High Vehicular Speeds

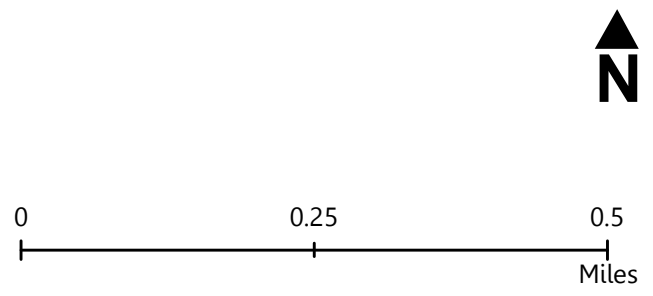
Figure 2.21



- Streets with High Vehicular Speeds
- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

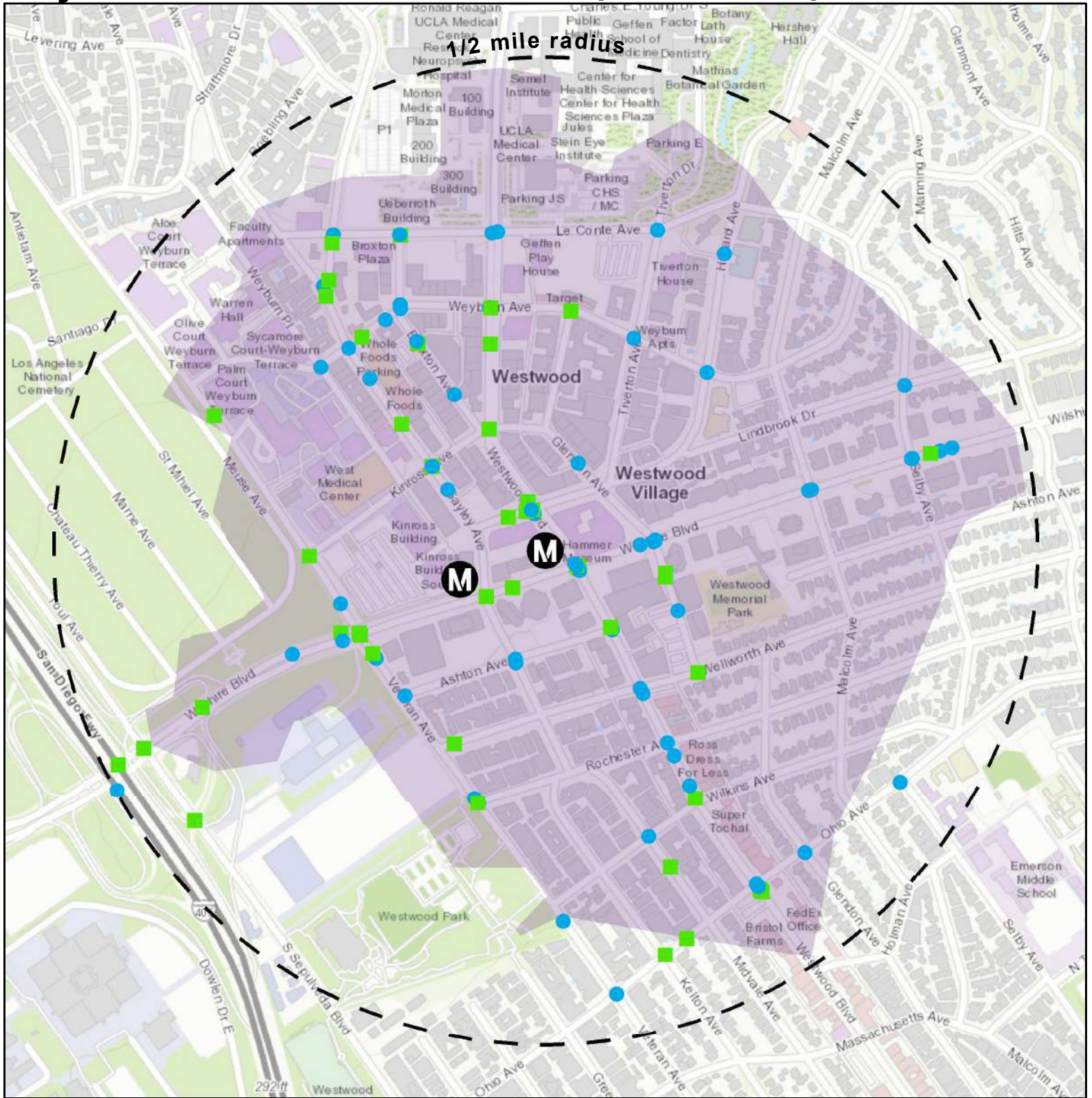


V-32



Westwood / UCLA Station Bicycle and Pedestrian Collisions (2013 - 2017)

Figure 2.22

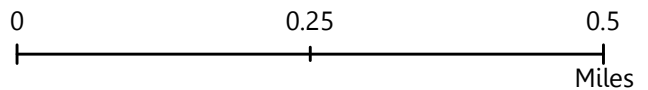


- Bicycle Collisions
- Pedestrian Collisions

- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

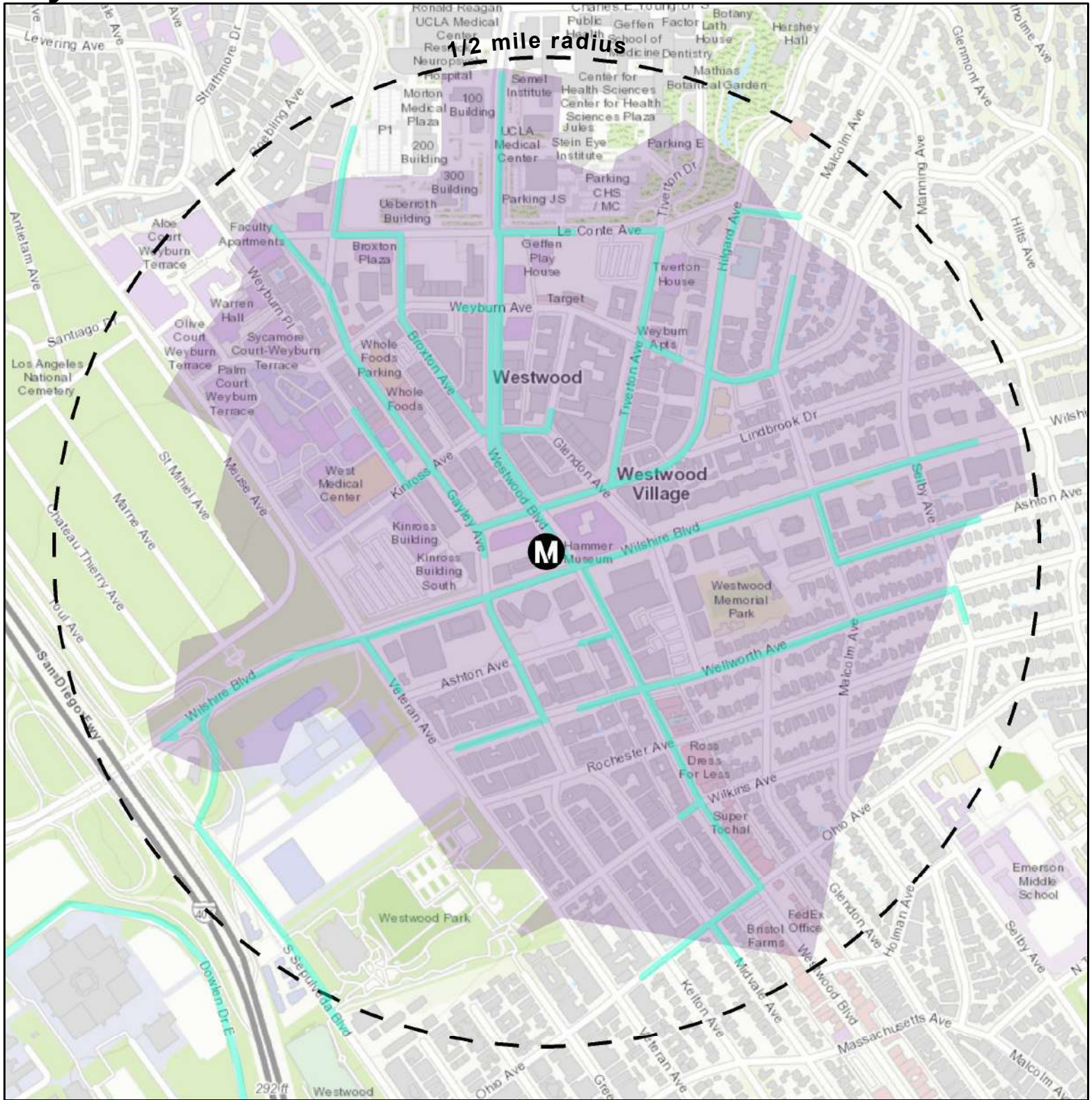


V-33



Westwood / UCLA Station Key Access Corridors

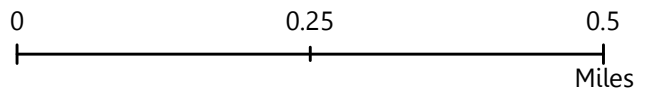
Figure 2.23



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

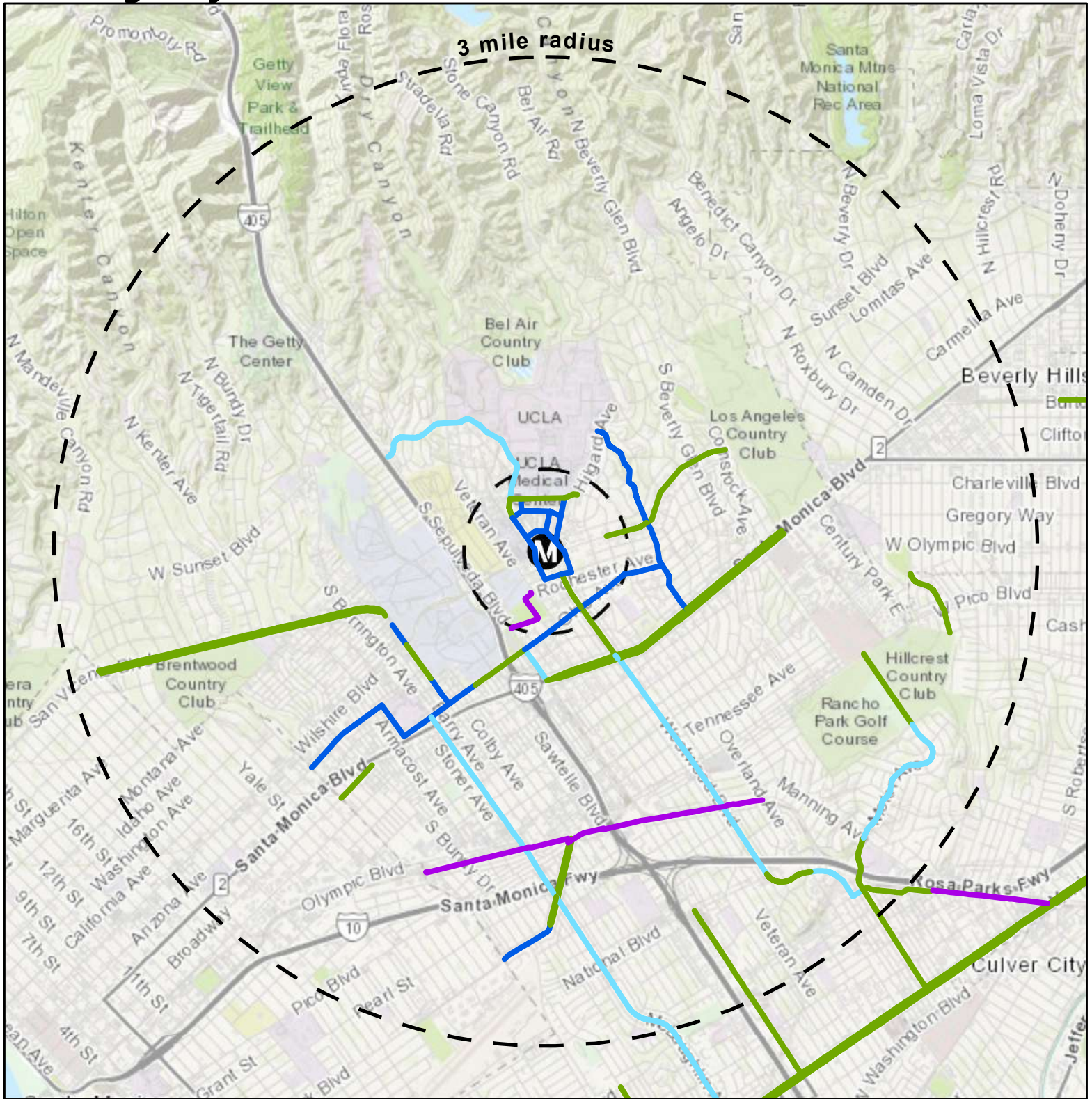


V-34



Westwood / UCLA Station Existing Bicycle Facilities

Figure 2.24

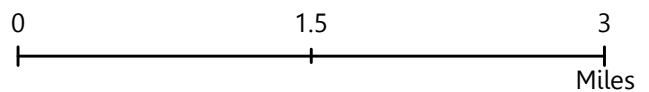


- Class I: Bike Path — Class III: Sharrowed Bike Route
- Class II: Bike Lane — Class III: Bike Route

Westwood / UCLA Station Half-Mile and Three-Mile Radii

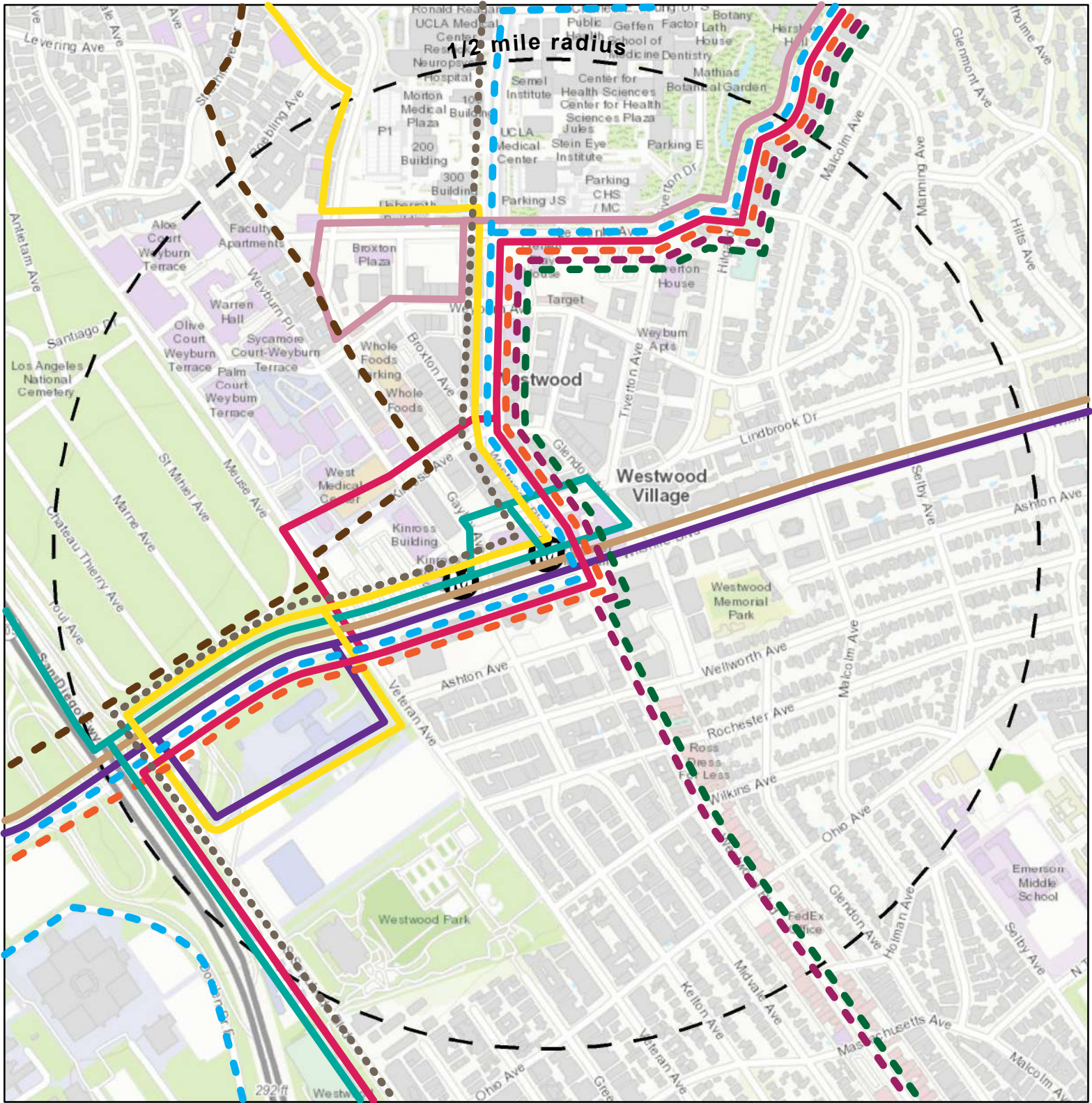


V-35



Westwood / UCLA Station Bus Transit Routes

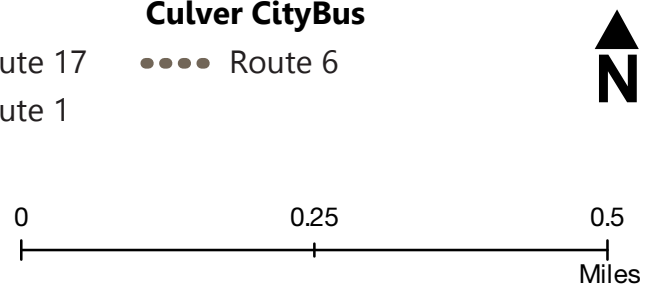
Figure 2.25



- | Metro | | Big Blue Bus | | Culver CityBus | |
|-----------|----------------|--------------|----------|----------------|--|
| Route 720 | Route 234, 734 | Route 18 | Route 17 | Route 6 | |
| Route 20 | Route 602 | Route 8 | Route 1 | | |
| Route 2 | Route 788 | Route 2 | | | |

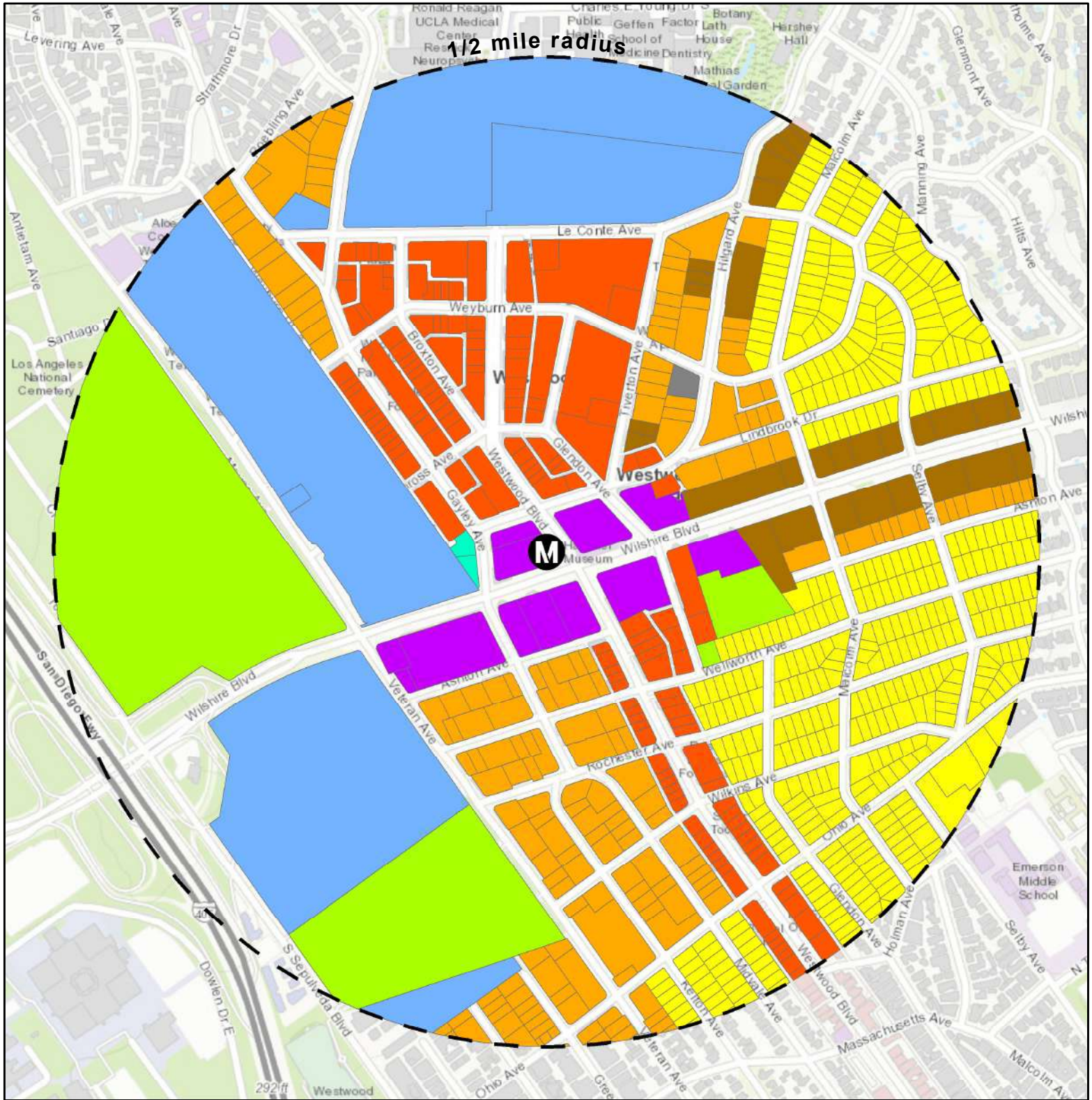


V-36



Westwood / UCLA Station Land Use

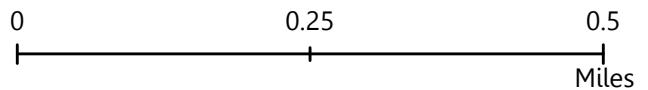
Figure 2.26



- | | | |
|---|---|--|
|  Low-Density Residential |  Commercial |  Public Facilities |
|  Medium-Density Residential |  Regional Commercial |  Open Space |
|  High-Density Residential |  Regional Center |  Parking |

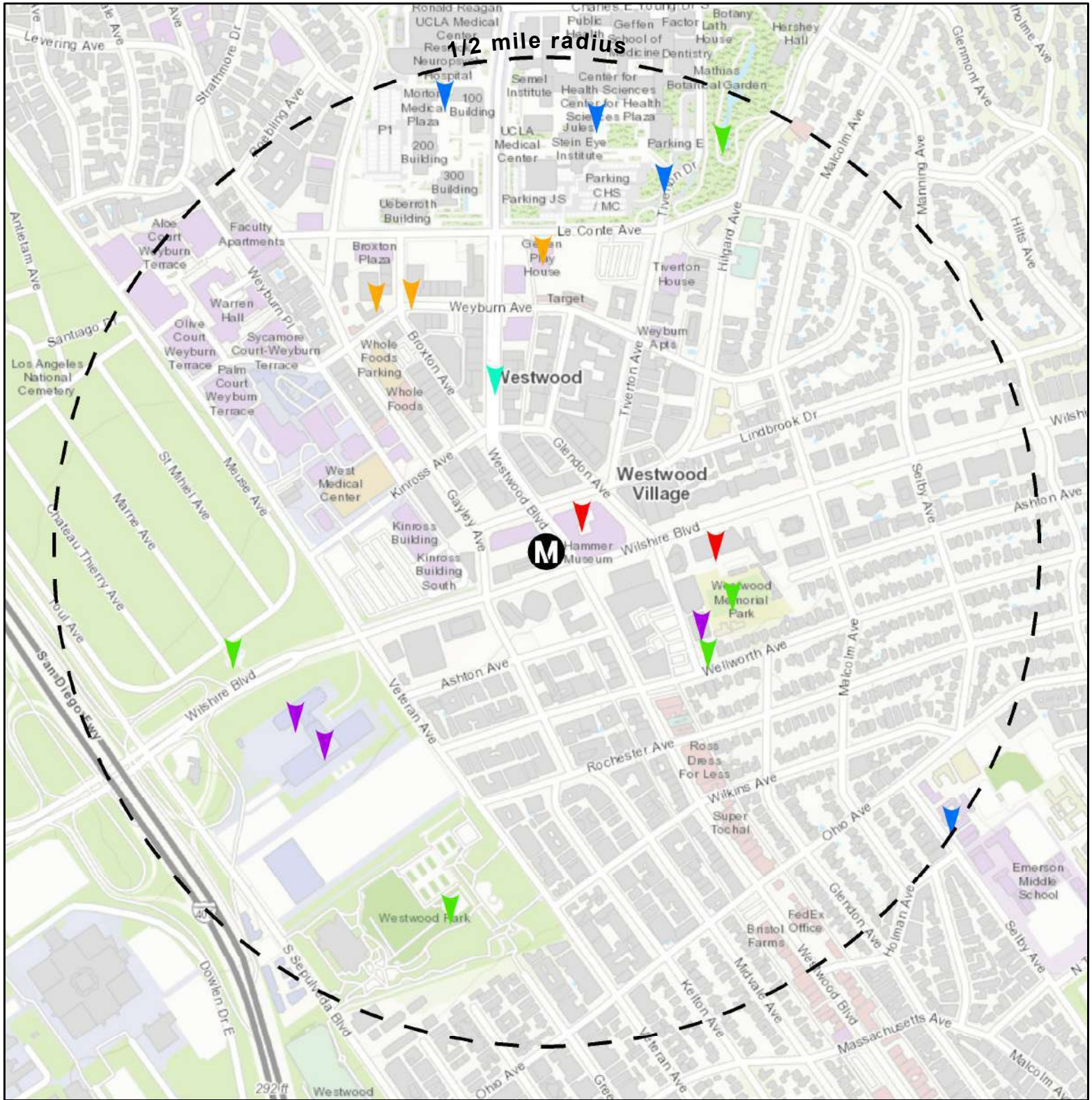








V-37



Westwood / UCLA Station Points of Interest

Figure 2.27

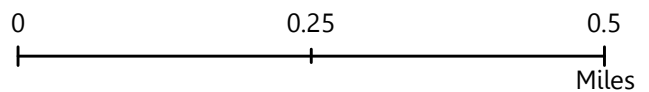


-  Art
-  Education
-  Public
-  Attraction
-  Open Space
-  Shopping

 Westwood / UCLA Station Half-Mile Radius



V-38



2.4. Westwood / VA Hospital Station

The Westwood/ VA Hospital Station entrance is located at the southeast corner of Wilshire Boulevard and Bonsall Avenue. This proposed station will provide a direct connection to the U.S. Department of Veterans Affairs West Los Angeles Medical Center and the surrounding U.S. Department of Veterans Affairs campus, with connections to the greater West Los Angeles area west of I-405.

A half-mile radius around this station location extends as far north as Sepulveda Boulevard and Constitution Avenue, and as far south as Ohio Avenue and Sawtelle Boulevard. In addition, a half-mile radius reaches as far west as Wilshire Boulevard and Barrington Avenue, and as far east as Wilshire Boulevard and Veteran Avenue. The Westwood/ VA Hospital Station and the Westwood/ UCLA Station study areas overlap east of the I-405 Freeway.

In general, the immediate area surrounding the station does not have a consistent street network, as a majority of the study area is part of the VA Hospital campus. Areas to the east are impeded by the I-405 freeway, and areas to the west are only accessible through the Wilshire Boulevard intersection with San Vicente Boulevard.

A pedestrian shed is the area encompassed by a half-mile walking distance away from a Purple Line station using the existing pedestrian network. Due to the inconsistent street pattern, the surrounding area is not pedestrian friendly.

The half-mile radius around the Westwood/ VA Hospital Station features many streets with high vehicular speeds. Streets classified as Highway/ Freeway, Arterial, or Collector by Caltrans in their Street Hierarchy dataset were determined as streets with high vehicle speeds. Streets identified with high vehicular speeds are:

- Wilshire Boulevard
- San Vicente Boulevard
- Barrington Avenue
- Sawtelle Boulevard
- Veteran Avenue
- Sepulveda Avenue
- Ohio Avenue
- The I-405 Freeway

Bicycle and pedestrian collisions were identified from 2013 to 2017 to determine specific areas within a half-mile of the station that see higher rates of active transportation collisions. Over this 5-year period, the highest rate of collisions were on Wilshire Boulevard, San Vicente Boulevard, Ohio Avenue, and Veteran Avenue. There were over 40 bicycle or pedestrian collisions within a half-mile of the Westwood/VA Station from 2013 to 2017.

Key access corridors were determined by using Metro's Origin/ Destination Analysis survey data and determining the locations where those who take active transportation begin or end their trip. The point data was used to determine the most logical route if that user were to access the station, and that pathway would be used to construct the key access corridor network. Data shows that users on the east side of the I-405 Freeway are closer to the Westwood/ UCLA Station.

Identifying bicycle connections are important to illustrate access to bicyclists, either by Class I bike paths or Class II bike lanes. Bicycle infrastructure is crucial to identify in a 3-mile radius rather than a half-mile radius, as bicyclists understandably have a greater range than a pedestrian. There are a few bike lanes within a half-mile radius of the station, on San Vicente Boulevard, Federal Avenue, and Ohio Avenue.

There are five existing bus transit lines that run directly next to the Westwood/ VA Station. There are five additional bus transit routes that operate within the half-mile radius study area. There are four Big Blue Bus routes that operate in the VA Hospital vicinity.

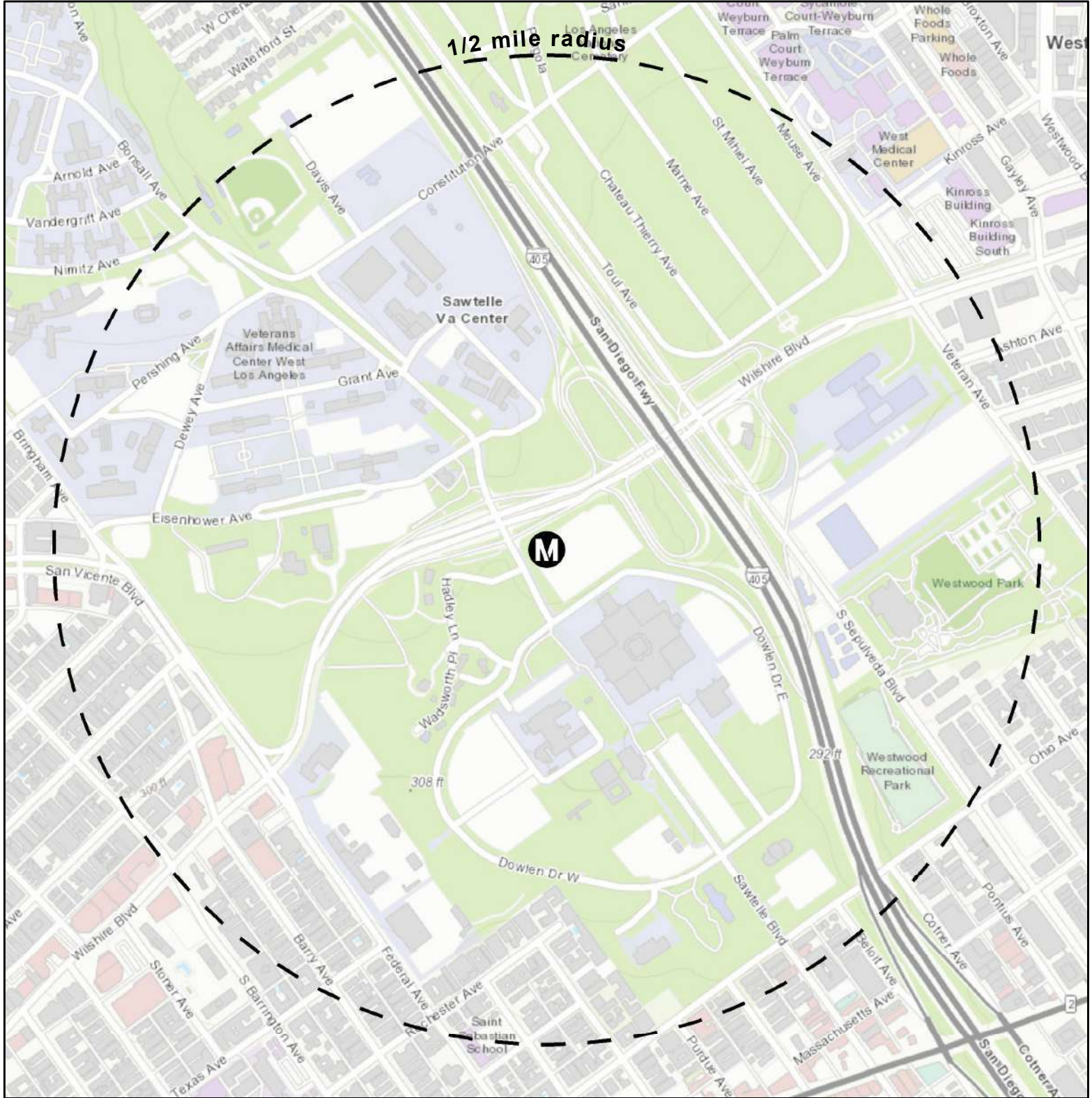
Identifying land use in the half-mile radius study area is crucial in identifying the type of users the Purple Line will service. The majority of land use is dedicated to public use for the VA Hospital campus, with the small remainder for open space to the east and multi-family and office to the west.

Transit stations are typically located near points of interest to maximize the half-mile pedestrian shed. There are many points of interest within a half-mile radius of the Westwood/ VA Hospital Station, but the station's primary use is to serve the VA Hospital.

Access-related station area characteristics for the Westwood/ VA Hospital Station are found in Figures 2.28 through 2.36.

Westwood / VA Hospital Station Street Grid

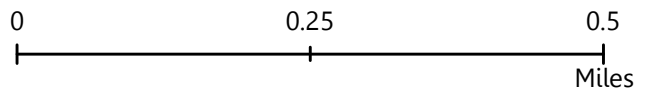
Figure 2.28



Westwood / VA Hospital Station Half-Mile Radius

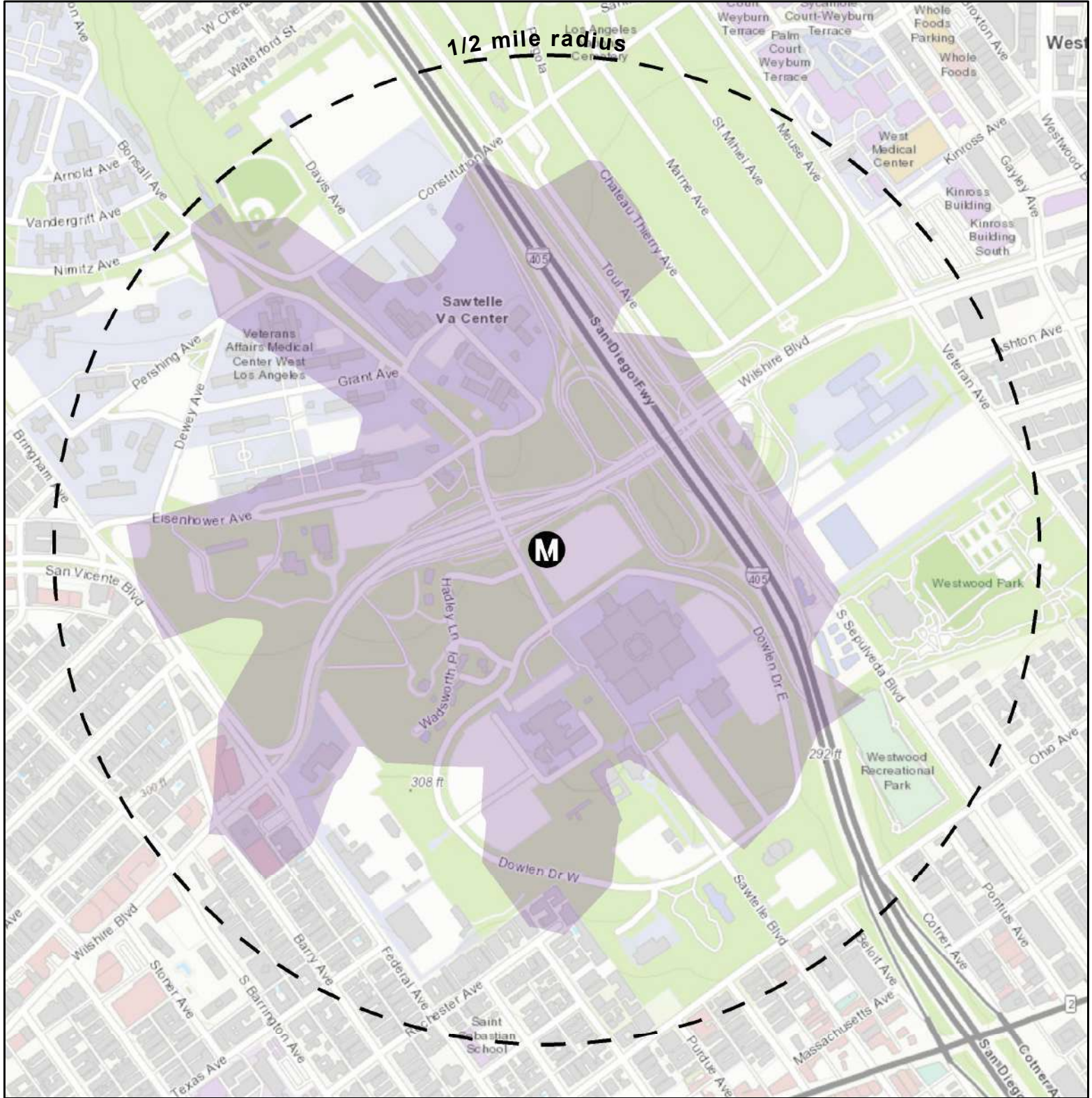


V-41



Westwood / VA Hospital Station Half-Mile Pedestrian Walk Shed

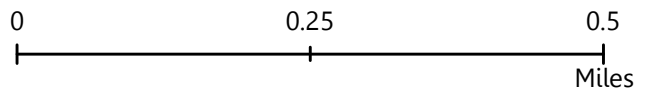
Figure 2.29



- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Station Half-Mile Radius

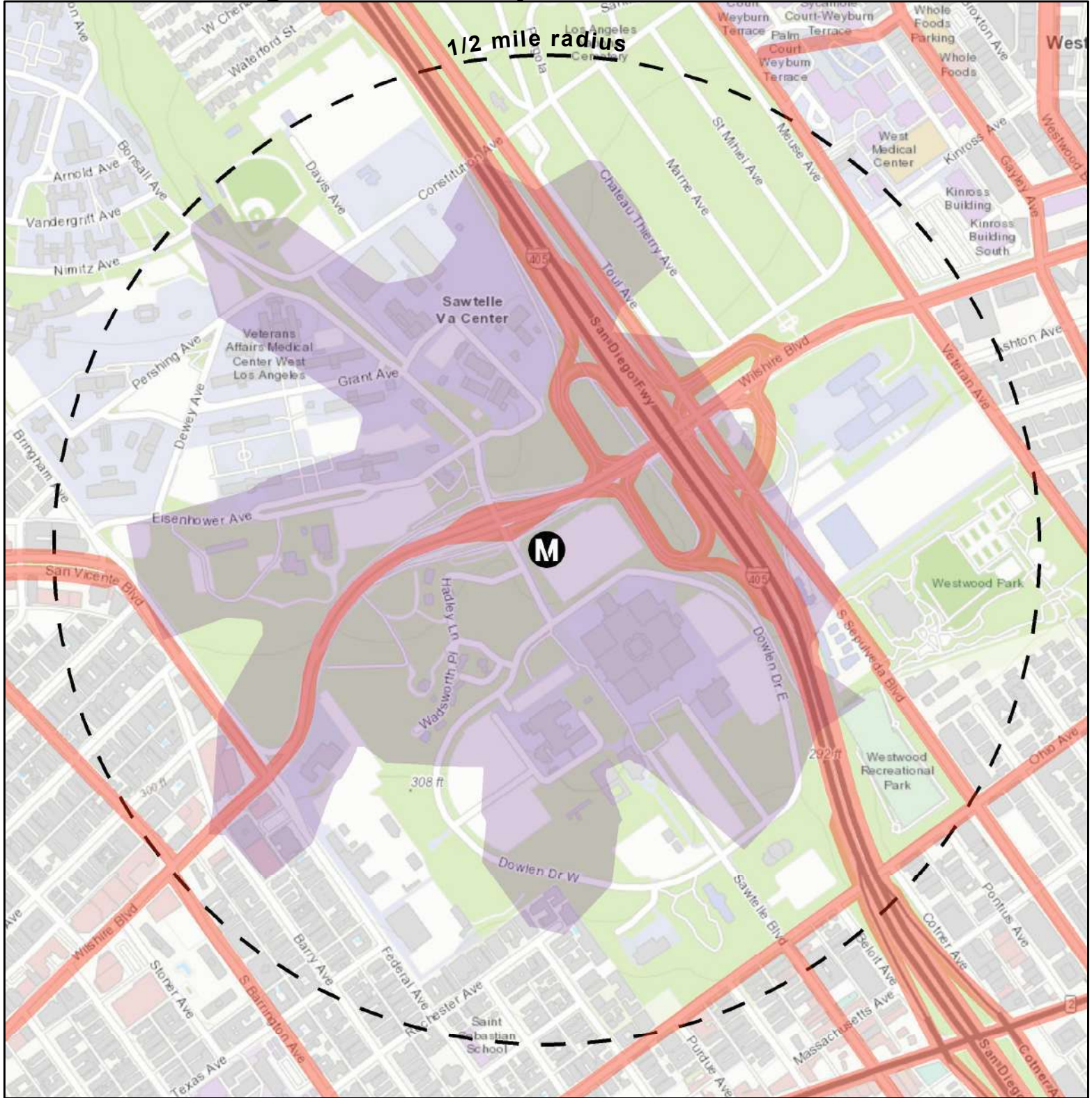





V-42



Westwood / VA Hospital Station Streets with High Vehicular Speeds

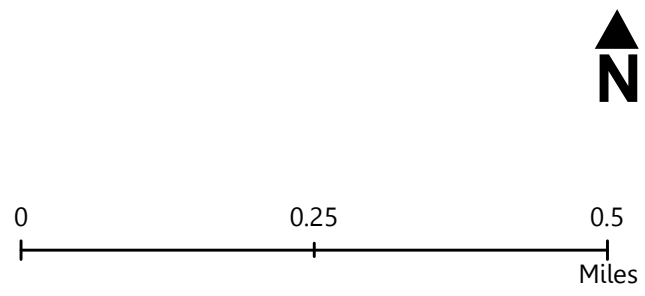
Figure 2.30



-  Streets with High Vehicular Speeds
-  Westwood VA Hospital Station Half-Mile Radius
-  Half-Mile Pedestrian Walk Shed

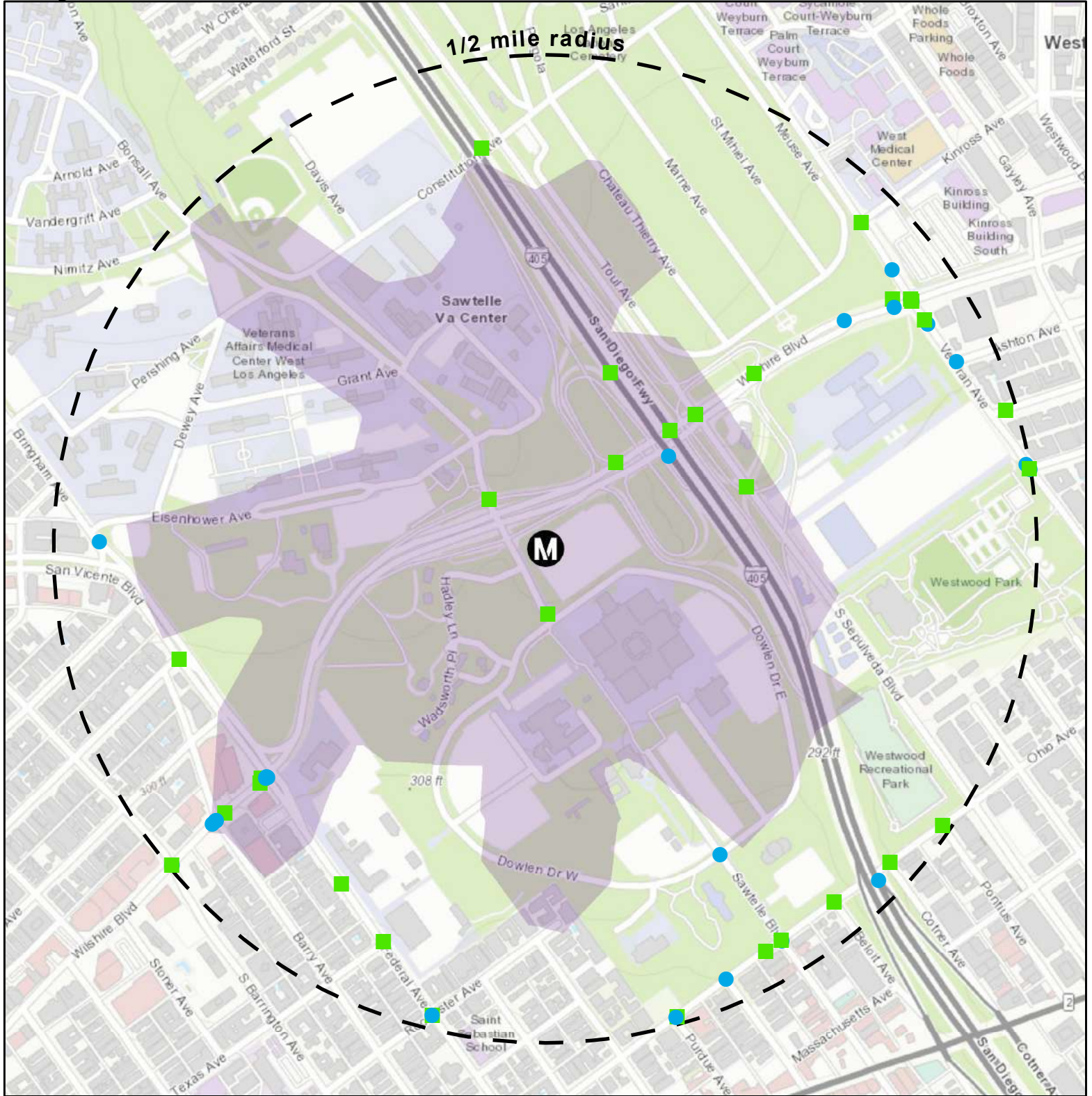


V-43



Westwood / VA Hospital Station Bicycle and Pedestrian Collisions (2013 - 2017)

Figure 2.31



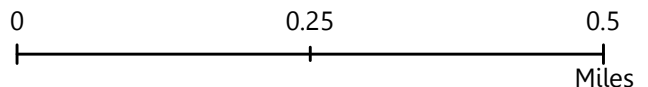
- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Half-Mile Radius



* A pedestrian fatality occurred at the intersection of Wilshire Blvd and San Vicente Blvd (2017)

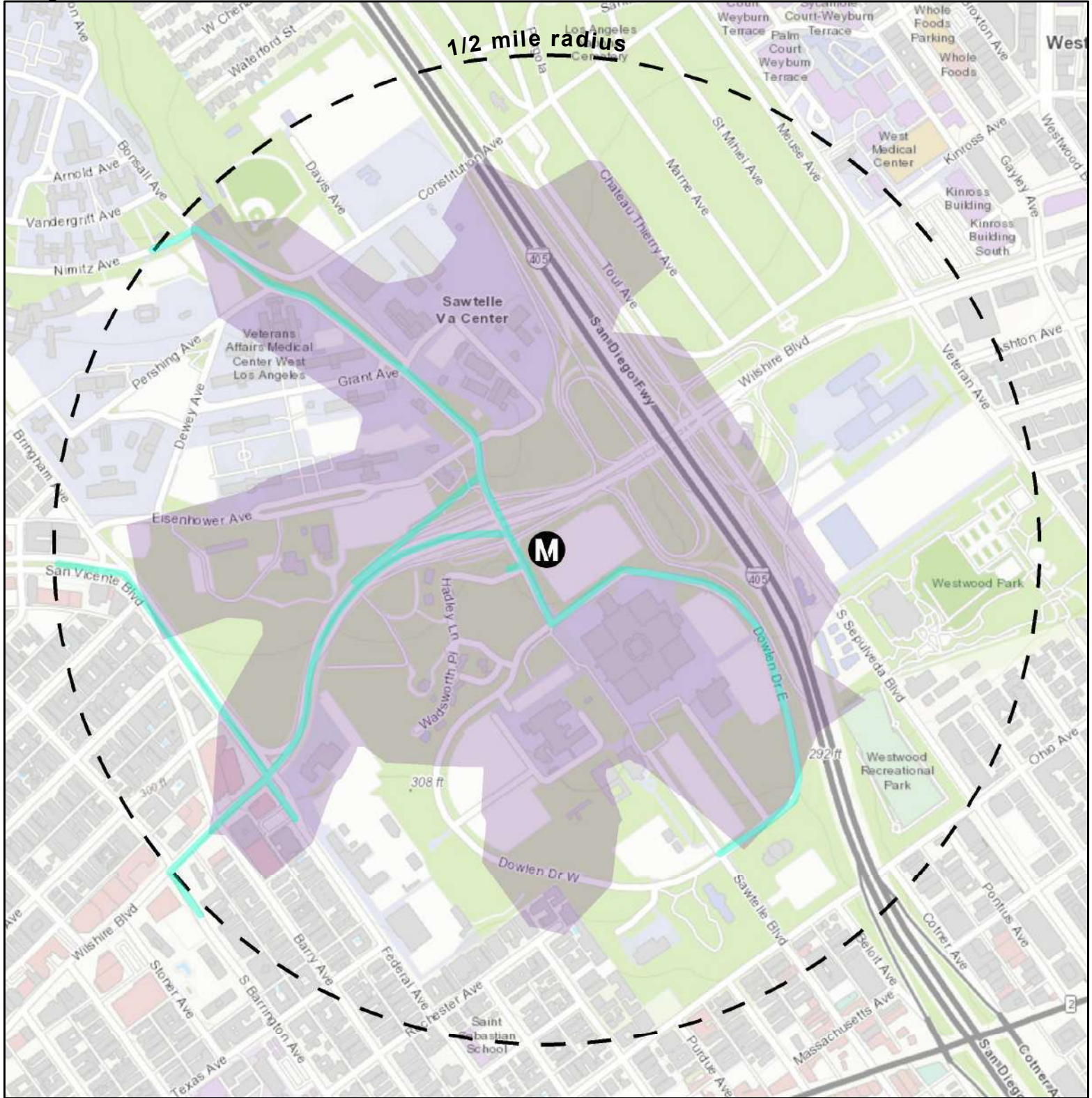


V-44



Westwood / VA Hospital Station Key Access Corridors

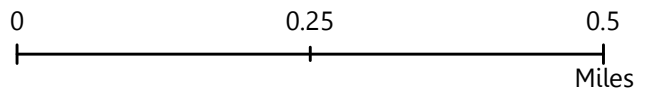
Figure 2.32



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Station Half-Mile Radius

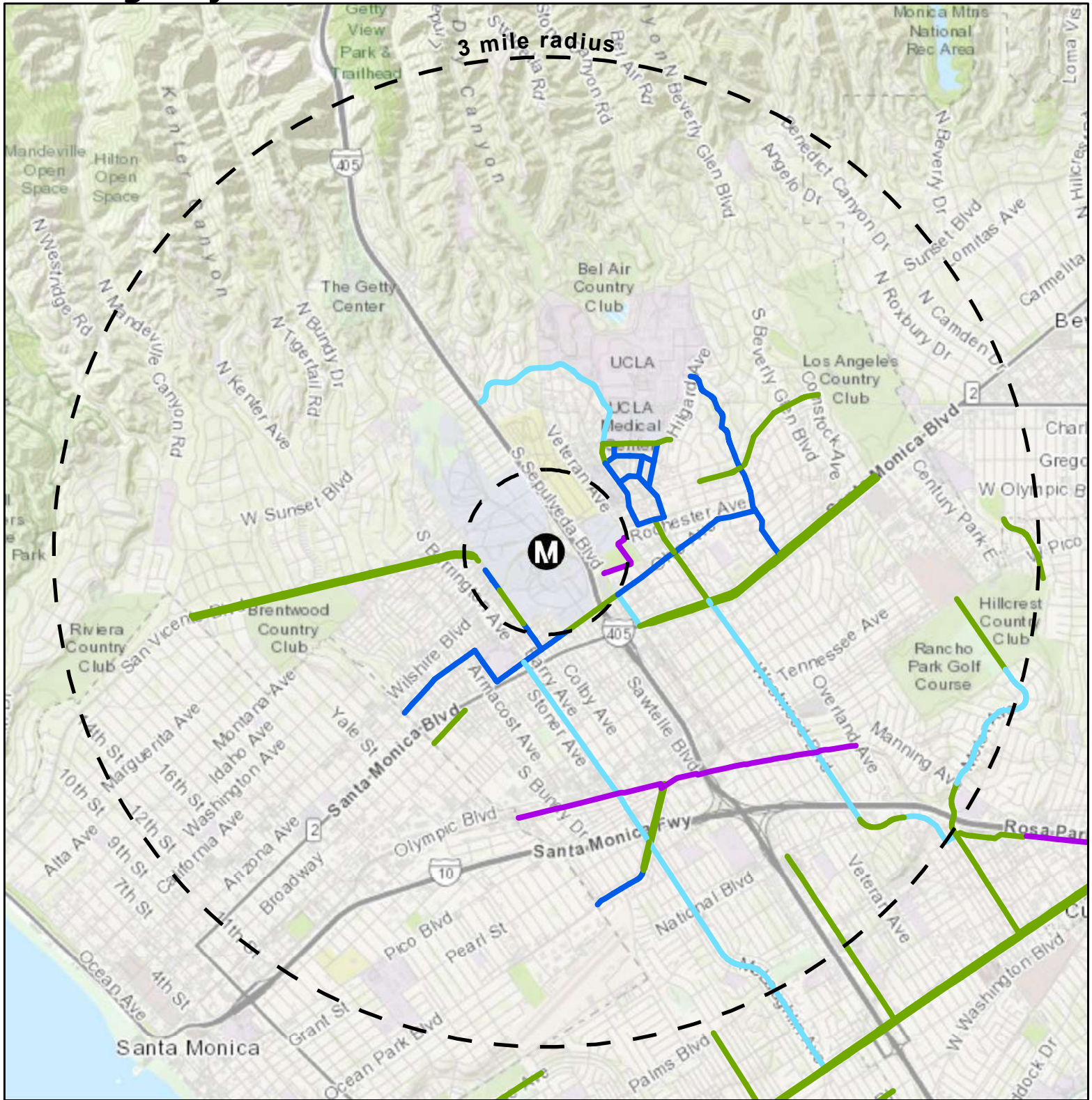


V-45



Westwood / VA Hospital Station Existing Bicycle Facilities

Figure 2.33



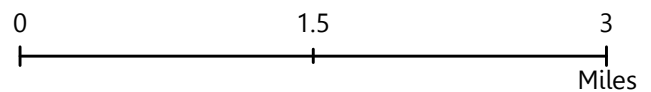
— Class I: Bike Path — Class III: Sharrowed Bike Route

— Class II: Bike Lane — Class III: Bike Route

 Westwood / VA Hospital Station Half-Mile and Three-Mile Radii

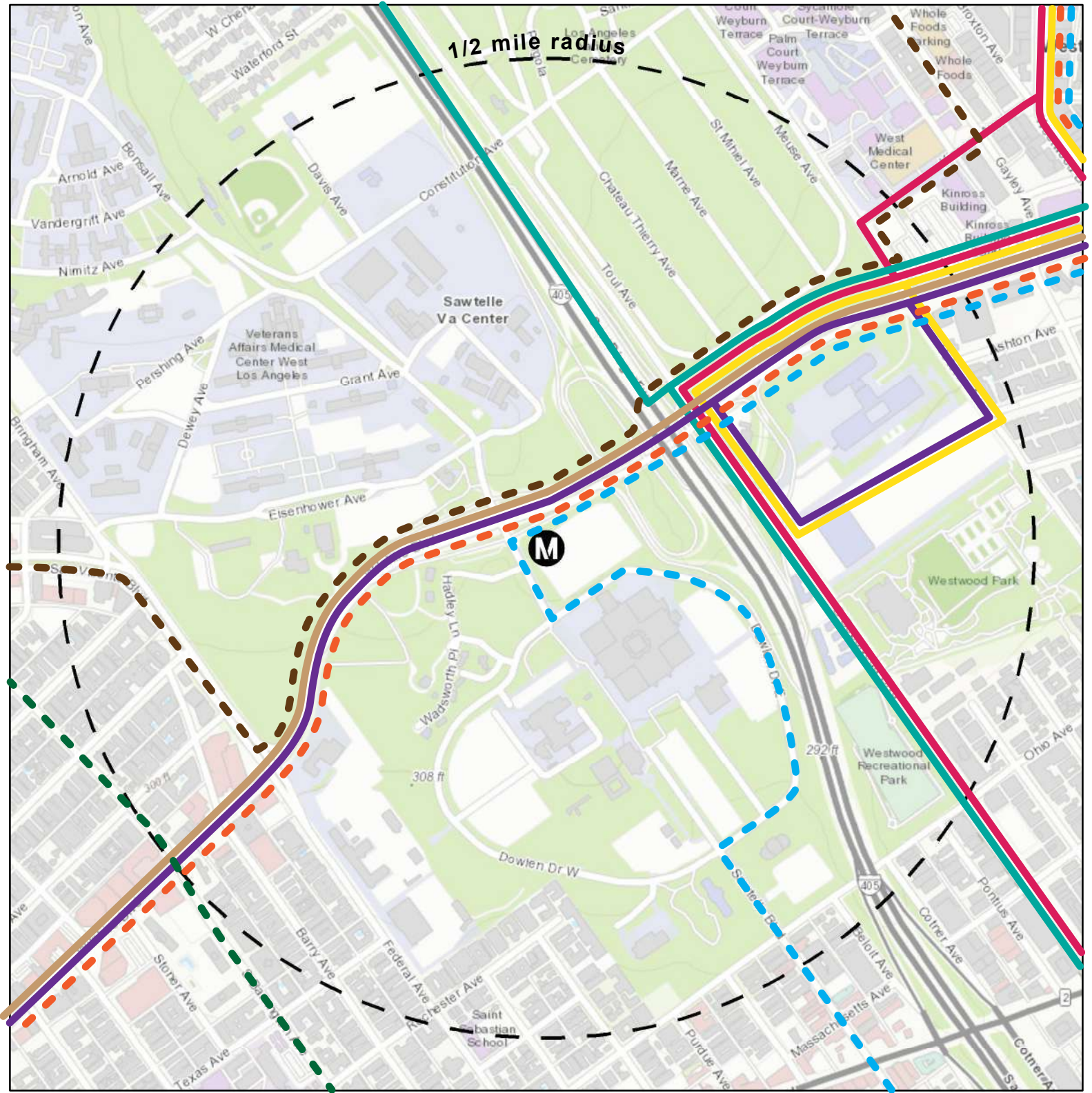


V-46



Westwood / VA Hospital Station Bus Transit Routes

Figure 2.34



Metro

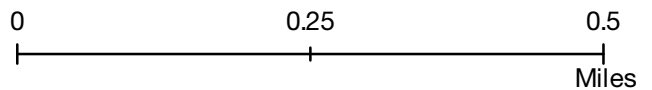
- Route 720
- Route 20
- Route 234, 734
- Route 602
- Route 788

Big Blue Bus

- Route 15
- Route 17
- Route 18
- Route 2

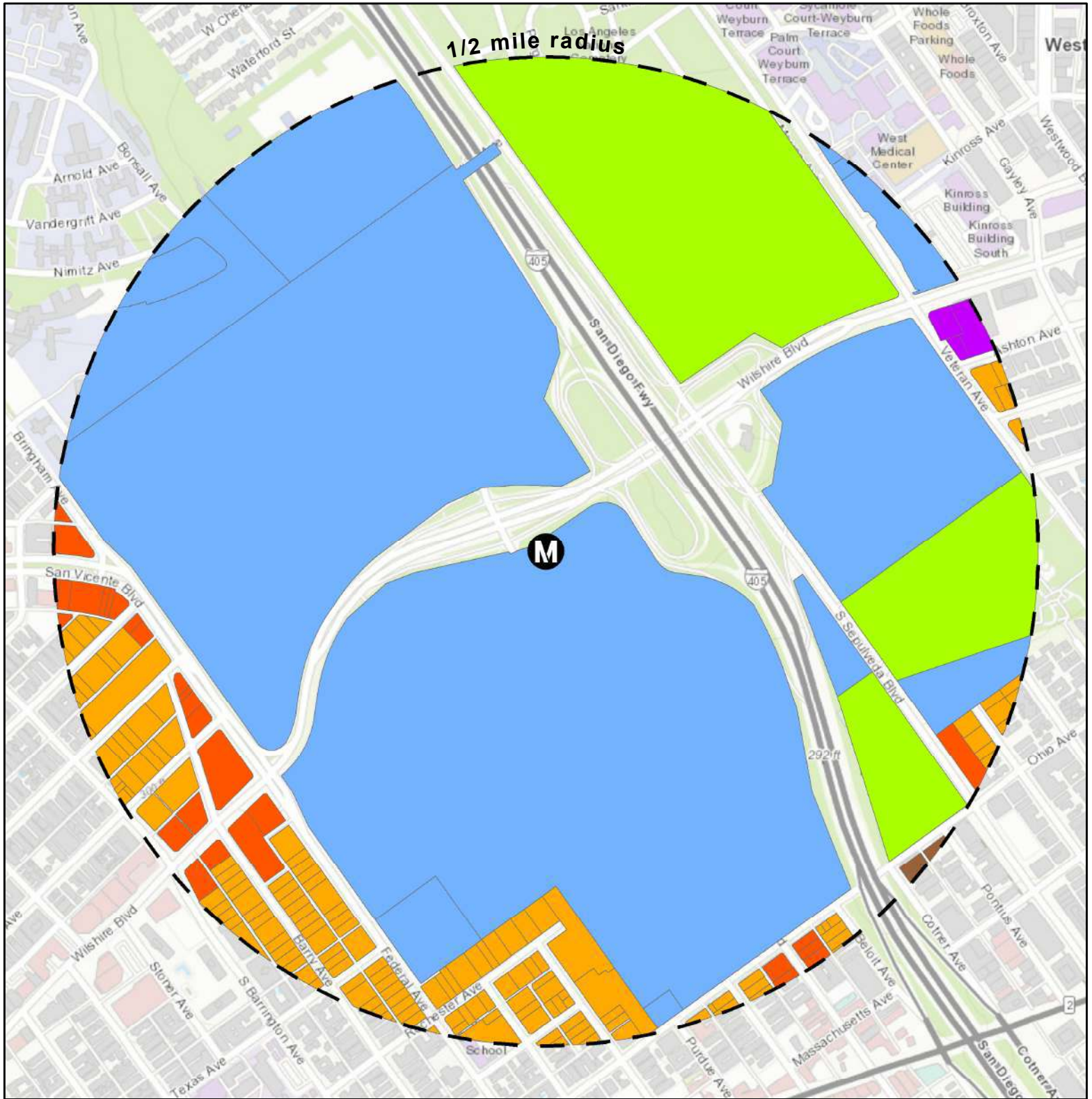


V-47



Westwood / VA Hospital Station Land Use

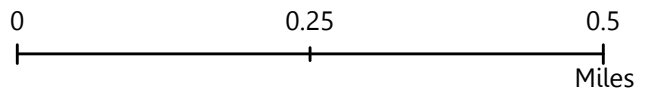
Figure 2.35



- Medium-Density Residential
- Commercial
- Open Space
- Public Facilities
- Regional Commercial
- Limited Manufacturing

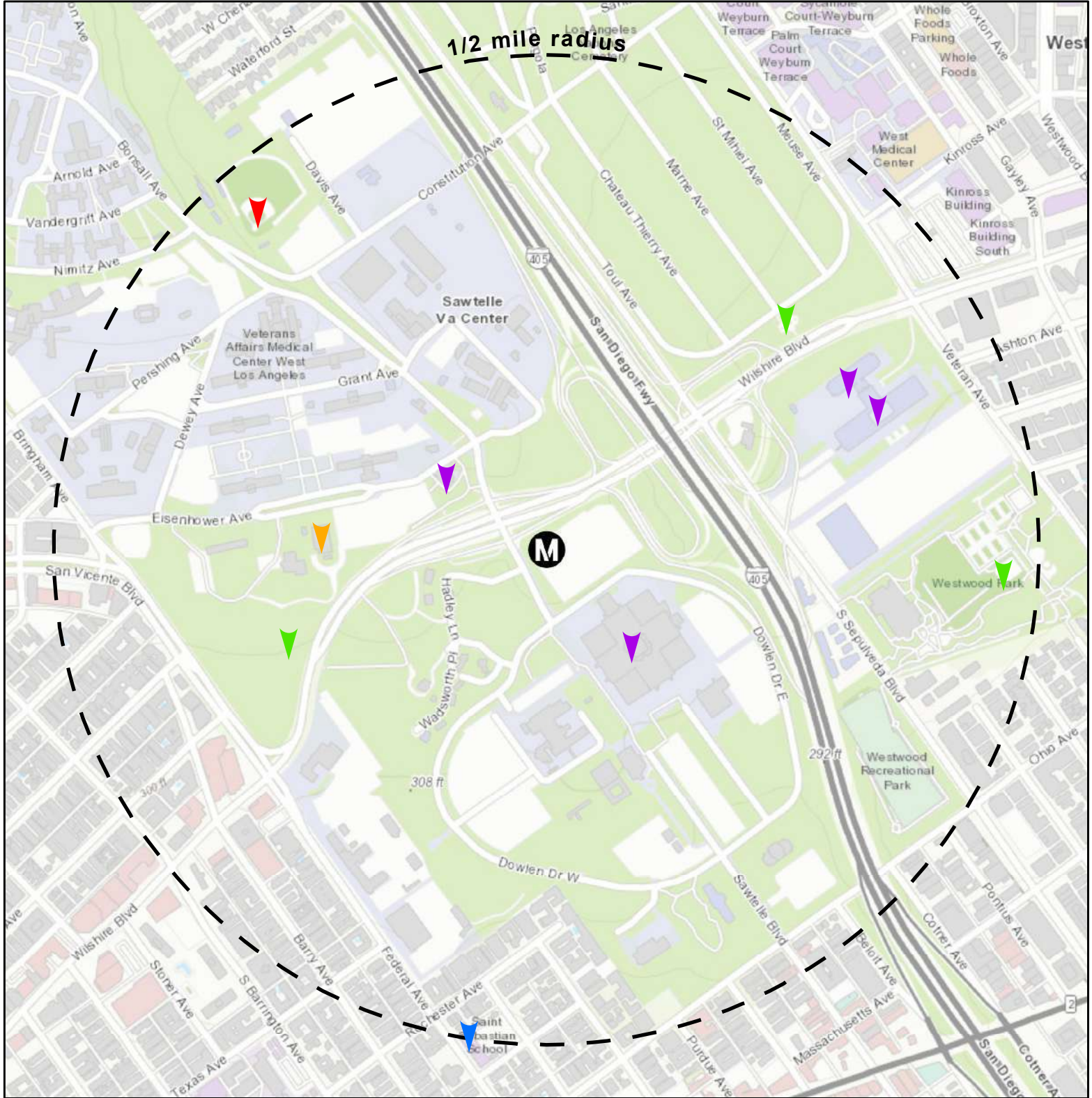


V-48



Westwood / VA Hospital Station Points of Interest

Figure 2.36

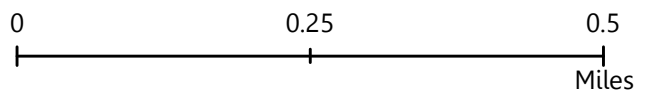


- ▲ Art
- ▼ Education
- ▼ Public
- ▲ Attraction
- ▼ Open Space
- ▼ Shopping

Westwood / VA Hospital Station Half-Mile Radius



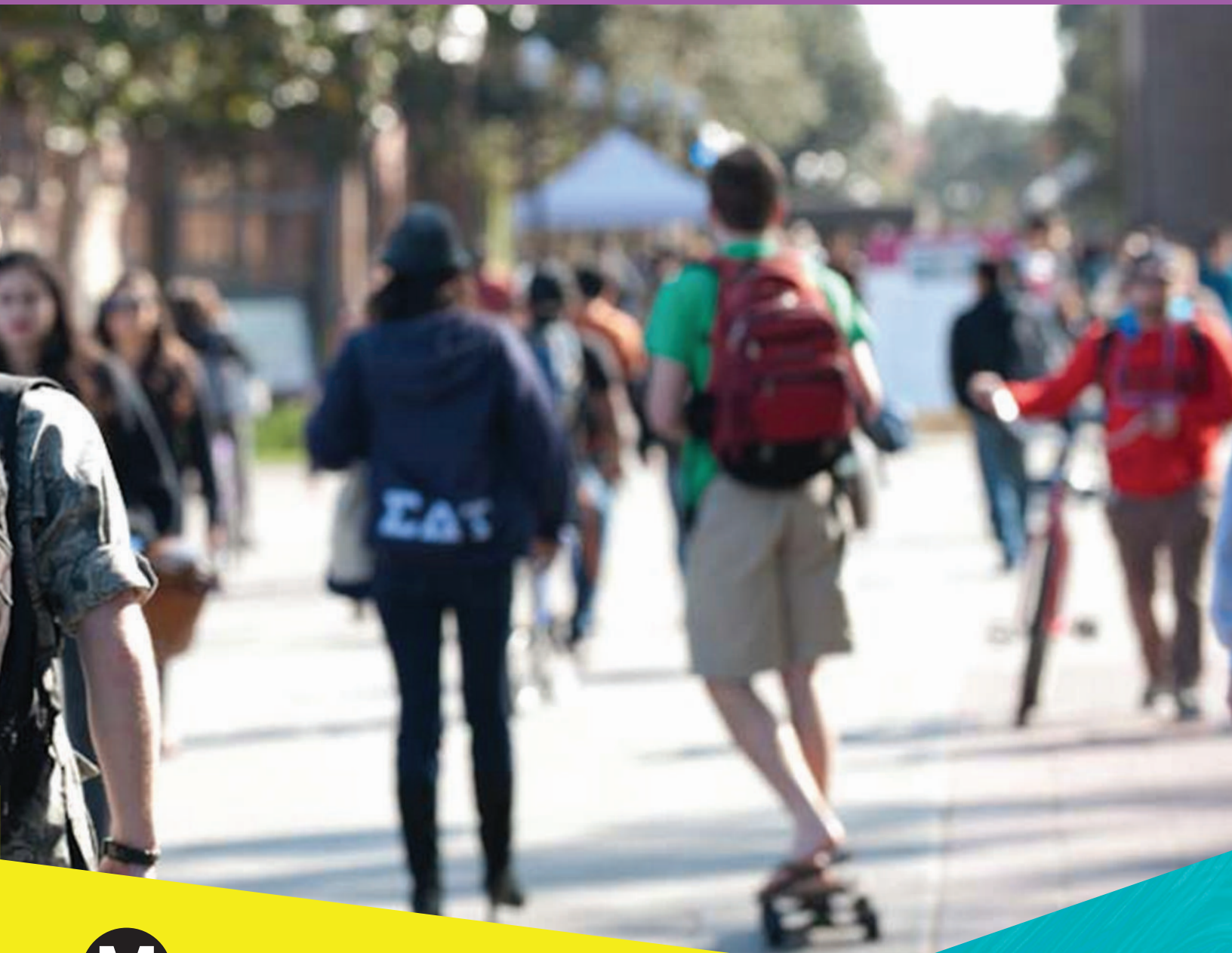
V-49



Next stop: connected communities.

COMMUNITY ENGAGEMENT & LOCAL COORDINATION

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

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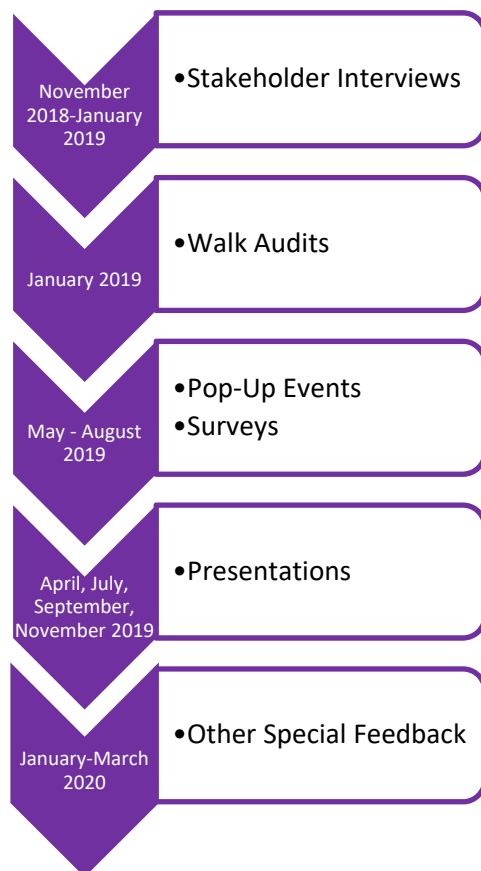
1. Community Engagement Summary

The First/Last Mile (FLM) Plan for Purple Line Extension Sections 2&3 (PLE 2&3) was produced with extensive community engagement at each of the future station areas: Wilshire/Rodeo, Century City/Constellation, Westwood/UCLA, and Westwood/VA Hospital.

Individuals and organizations have a local sense of ownership of the streets and provide FLM-related insight based on intimate experience. Indeed, the streets are woven into the daily fabric of their lives. In thinking about community engagement, PLE 2&3 sought to reach diverse users of the streets including residents, students, businesses, and visitors.

The need for community engagement was paramount in helping understand local environments and community concerns. Feedback provided insight about physical barriers limiting transit accessibility. It also surfaced interesting ideas for improvements. Feedback directly informed the FLM Plan.

Community engagement for the PLE 2&3 FLM Plan include the following activities:



Stakeholder interviews were conducted toward the start of FLM Plan development. Stakeholders include members from local city government, chambers of commerce, business improvement districts, community councils, advocacy groups, and institutional actors (e.g. Cedar Sinai Medical Center, UCLA), among others. Thirteen interviews were conducted with a total of 21 stakeholders.

Walk Audits are collaborative, field-based research activities wherein participants are asked to walk around future station areas (1/2-mile radius) and observe the built environment and its impacts on transit safety/comfort and connectivity. The observations are recorded on a tablet using Metro’s FLM app; it geo-locates participants as they walk around. Walks Audit data is aggregated and analyzed, helping to inform FLM Plan project ideas. There were 66 auditors and a total of 462 observations at eight audits.

Pop-Up events were hosted at farmers markets and other community events to gather public input on FLM improvements for each of the four stations. They included an interactive activity: passers-by were asked to analyze large-format maps and provide feedback on FLM improvements along station area streets and at intersections. Surveys were also conducted at the Pop-Up events or individuals were given a hyperlink to later complete the online survey on their own. There were 7 Pop-Up events and a total of 443 survey respondents.

Presentations were made by Metro staff to neighborhood councils, a business improvement district, and the Beverly Hills Traffic and Parking Commission. Metro provided an overview of its FLM approach, the Pathway Maps, and potential Plan ideas.

In response to community interest in the Westwood/UCLA station area, Metro also met with local community members in January 2019. This meeting led to a special comment opportunity: an email survey was issued to collect written comments on the draft FLM plans.

2. Introduction

The Purple Line Extension Sections 2 & 3 First/Last Mile Plan is focused on identifying improvements for pedestrian and bicycle access to the four new subway stations proposed in Beverly Hills, Century City, Westwood, and West Los Angeles. Sections 2 & 3 of Purple Line Extension will connect Downtown Los Angeles to some of the biggest destinations for tourists, commuters, students, and veterans in Los Angeles County.

From the current terminus at the Wilshire/Western Station, the Purple Line will extend westward for approximately 9 miles. Sections 1, 2, and 3 will add a total of seven new stations to the Purple Line.

The Purple Line Extension Sections 2 & 3 First/Last Mile Plan aims to increase the mobility, accessibility, safety, and comfort for pedestrians, bicyclists, and other active modes of transportation surrounding four proposed Purple Line stations. This summary memo presents the results of the community outreach effort completed for the area encompassing the four future:

- Wilshire / Rodeo Station
- Century City Constellation Station
- Westwood / UCLA Station
- Westwood / VA Hospital Station

This report summarizes multiple community outreach efforts for the Purple Line Extension First/Last Mile Plan. For the First/Last Mile Plan, Metro completed multiple stakeholder interviews, conducted multiple walk audits, hosted numerous pop-ups events, gave presentations, and administered a conducted two first/last mile surveys. This report also summarizes coordination efforts with local agencies.

3. Stakeholder Interviews Summary

As part of the Metro Purple Line Extension Sections 2 & 3 First/Last Mile planning efforts, members of the consultant team including Bill Delo (IBI), Nicole Ross and Marina Kay from The Robert Group (TRG), conducted a series of interviews with a variety of individuals and organizations that have a stake or interest in the future of the Metro Purple Line Extension Project.

Thirteen interviews were conducted with a total of 21 stakeholders between November 2018 and January 2019. Stakeholders included elected officials, planning staff, and representatives from community organizations, businesses, healthcare centers and higher education institutions. Twelve interviews were conducted via phone/screen-sharing using the application GoToMeeting and one interview was conducted in person.

The purpose of conducting stakeholder interviews was to understand and identify first/last mile needs and priorities, including specific station area investments that people felt are currently needed or could significantly help the surrounding communities. Each interview participant was asked a similar set of questions, designed to provide an opportunity to share their opinions and insights. The interviews were conducted with the help of a Google Earth map of the stakeholder's corresponding station area. As the stakeholder analyzed the map and provided commentary on specific areas of concern, the planning team simultaneously populated the map with localized notes. This method allowed for a real-time, spatial understanding of the station area.

The most consistent themes¹ heard from the stakeholders included:

- Need for drop-off and pick-up areas for Uber and Lyft drivers and passengers
- Need for bike lockers at stations to serve transit riders who cannot take bikes on the train, and need to store them somewhere until they return to their origin station
- Various station areas have narrow sidewalks that cause pedestrian congestion
- Connections to residential areas in station area
- Consideration of circulator shuttles to connect destinations to the stations
- Need for bicycle facilities in most station areas (bike lanes/ cycle tracks/ multi-use facilities)
- Need for wayfinding signage throughout station areas
- Bottleneck traffic conditions on major streets in station areas
- Importance of having pedestrian connections to major commercial centers, office buildings, hospitals, hotels, landmarks and other major destinations
- Overall concern with e-scooter regulations and accommodation

The stakeholders interviewed for the Purple Line Extension First/Last Mile Plan were:

- Linda Paradise Lyles, *Commute 90065 TMP*
- Aaron Gaul, *Urban Trans*
- Michael Skiles, *President of UCLA Graduate Students Association*
- Mara Braciszewski, *UCLA Graduate Students Association*
- Michelle Eviorato, *UCLA Graduate Students Association*
- Bill Wiley, *2 Rodeo*
- Blair Schechter, *Beverly Hills Chamber of Commerce*
- Todd Johnson, *Beverly Hills Chamber of Commerce*
- Jessie Holzer, *City of Beverly Hills*
- Aaron Kunz, *City of Beverly Hills*
- Gabriela Flores, *Cedar Sinai Medical Center*
- John Heidt, *Purple Line Extension Advisory Committee*
- Juan Matute, *Associate Director of the UCLA Lewis Center and Institute of Transportation Studies*
- Lauren Cole, *Brentwood Community Council Transportation Committee;*

¹ The most consistent stakeholder themes do not necessarily relate to first/last mile goals.

- Cori Solomon, *Brentwood Community Council Transportation Committee*
- Florence Chapgier, *Brentwood Community Council Representation Committee*
- Nancy Wood, *President and CEO of the Century City Chamber of Commerce*
- Steven Sann, *Westwood Community Council*
- Zack Gold, *UCLA Bike Coalition*
- Anna Geannopoulos, *UCLA Bike Coalition*
- Andrew Thomas, *Executive Director of the Westwood Village Improvement Association (BID)*

Stakeholder comments were recorded for each question, as well as locational opportunities, barriers, origins/destinations, and bicycle/pedestrian comments. Each interview is summarized below.



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Linda Paradise Lyles,
Commute 90065 TMO
 Aaron Gaul, *Urban Trans*

Station: Century City/VA Station

Date|Time: December 4, 2018 | 10am

Facilitated by: Bill Delo, IBI

Purple Line Stats:

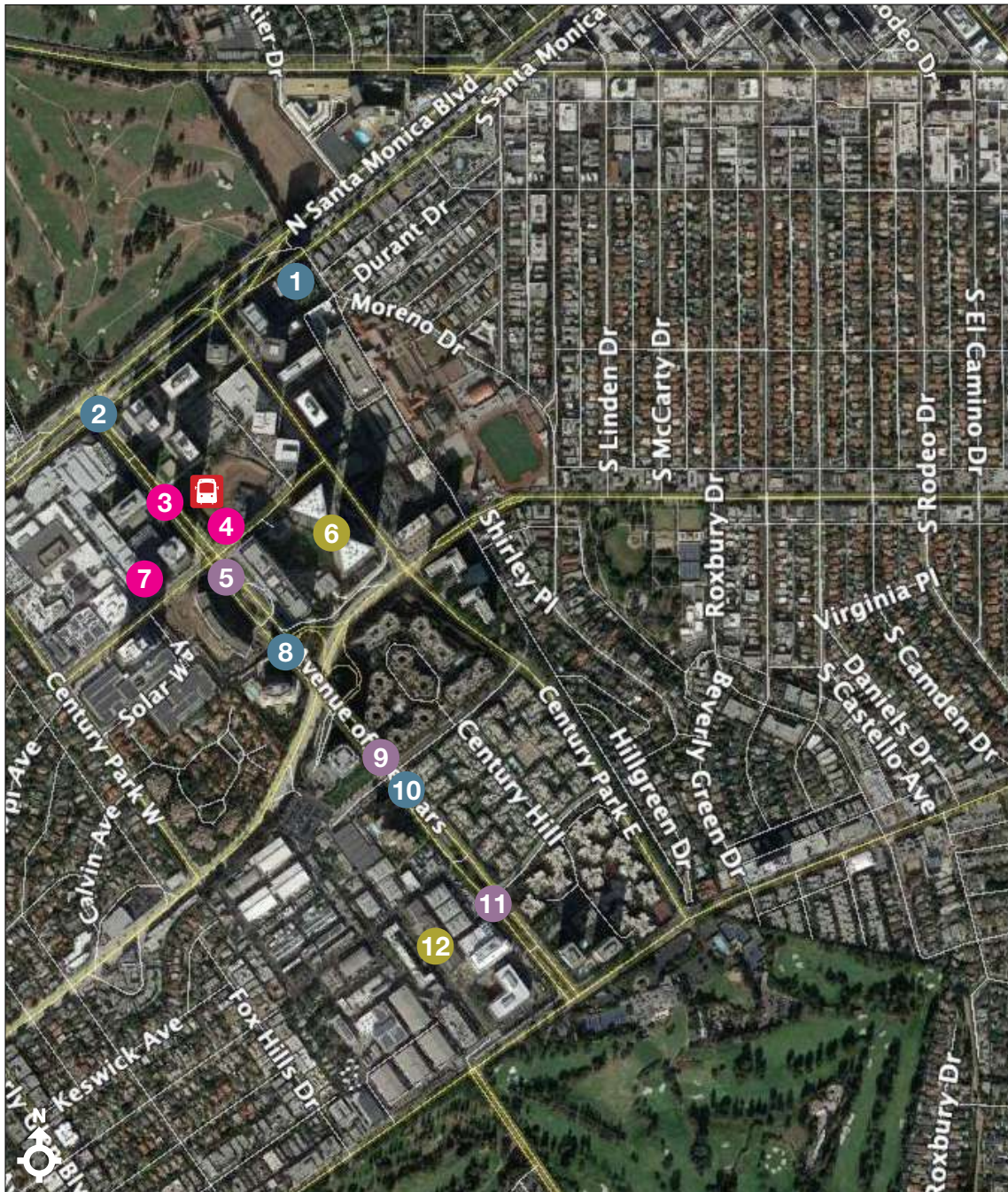
- Linda Paradise Lyles, Executive Director of *Commute 90065 TMO*
- Aaron Gaul, Director, *Urban Trans*
- Very familiar with PLE FLM planning

Summary by: Marina Kay, TRG


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Century City/VA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Walking across Santa Monica Blvd is difficult because of it is a long crossing and crossing time is very short • Similar scramble crossing intersection of Constellation Blvd and Ave of the Stars • High traffic coming onto Ave of Stars from Olympic Blvd • Few scooter riders thus far, much higher volume of bike riders • Room for bicycles and scooters on the streets
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Lack of street lighting for pedestrians walking at nighttime • Recommend adding separated bike lanes on Avenue of the Stars • Need for wayfinding at station portal • Would be good to bring in Metro and Big Blue Bus stops closer to station portal in Century City

<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Those who walk to the mall during Lunch time • Consideration for underground connection to Westfield Mall to avoid crossing the traffic congested streets
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Hyatt Hotel (service employees that work shifts) • Twin Towers; there are thousands of commuters going to those buildings and they are significantly far from the transit stop • 10100 Santa Monica Building
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Many working professionals who are not going to walk will take whatever device. There are also service workers who would take transportation as well. • Important to consider element of privacy and security for Consulates/Embassies/High profile law firms, etc.
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Uber/Lyft: drop off and pick up stops should be built into the FLM • Station should have car share as part of the station
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Not sure but would like to be sent invite.
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Aaron Gaul attended Century City Walk Audit on Monday, January 14th, 2019.

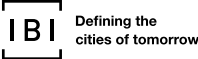
Map below depicts noted areas for First/Last Mile improvements.



Linda Paradise Lyles

- 1 10100 Sana Monica Building is a far walk to the station
- 2 Long crossing, limited time to cross Santa Monica Blvd
- 3 Bring in Metro/ BBB stops
- 4 Wayfinding at station portal
- 5 Scramble crossing Avenue of the Stars/ Constellation Blvd
- 6 This block is key destination in number of commuters
- 7 Underground connection to Westfield Mall?
- 8 High traffic coming onto Avenue of Stars from Olympic Blvd
- 9 Separated bike lanes on Avenue of the Stars?
- 10 Asked to put on hold until after construction
- 11 Dedicated bike/ pedestrian pathway in median of Avenue of the Stars
- 12 Fox Studios destination
-  Century City Station

	Opportunities
	Barriers
	Origins/Destinations
	Bicycle/Pedestrian Comments





Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Michael Skiles, President,
 UCLA GSA

Station: Westwood/UCLA Station

Date|Time: December 7, 2018 | 3pm

Facilitated by: Cristina Martinez, IBI

Summary by: Marina Kay, TRG

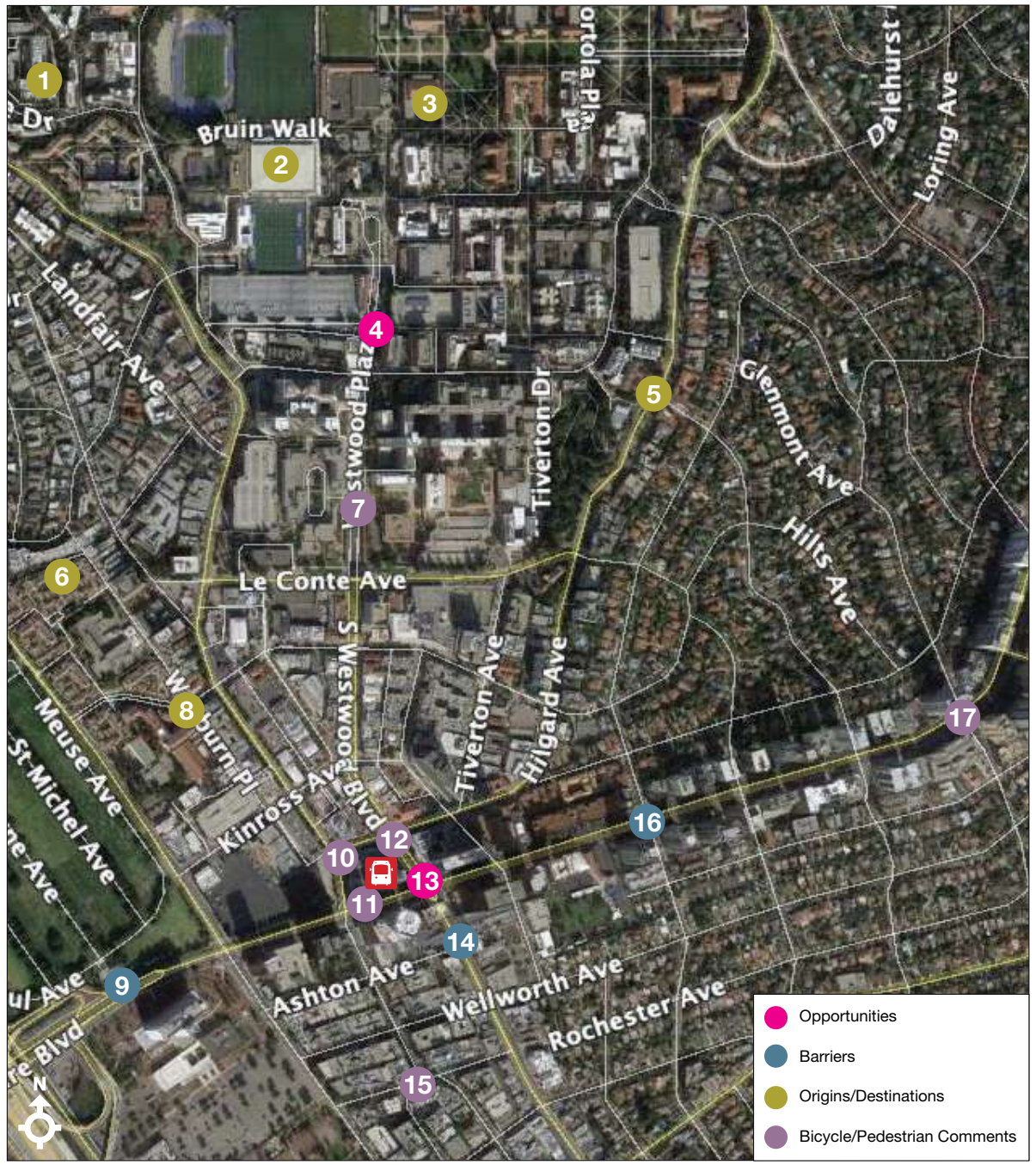
Purple Line Stats:

- Mara Braciszewski, *UCLA GSA*
- Michelle Eviorato, *UCLA GSA UCLA Graduate Students Association*
- Very familiar with PLE Planning efforts


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Westwood/UCLA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Poor bike access and lack of bike lanes • Sidewalks not wide enough • Pedestrian improvement needed along Westwood Blvd • Walk from station to campus would take a long time • Several driveways along Westwood with little to no traffic where pedestrians do not have right of way • Bicycle access along hilly paths • Hilgard/ Manning light takes 2-3 minutes to allow crossing • Pedestrian crossing issues at Rochester Ave and Midvale Ave
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Connection to DTLA • Connection to Korea Town • Weyburn Terrace (Graduate student housing) • UCLA Central Campus • Pauley Pavilion
What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> • UCLA Campus (including Pauley Pavilion)

	<ul style="list-style-type: none"> • Westwood Village
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Undergraduate student housing (on the hill) • Graduate student housing (Weyburn Terrace) • Malcolm and Wilshire (no pedestrian crosswalk) • Midvale and Rochester (no pedestrian crosswalk)
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Serious lack of parking south of the station • Many businesses, restaurants on Wilshire Blvd; serious lack of street/lot parking nearby • Consider easing up on the parking restrictions; offer 2-hour parking for example • Congestion from student commuters exiting 405 freeway; bottleneck at this exit; especially along overpass getting to the VA
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • All participants on the call are interested
<p>If yes, which day?</p>	<ul style="list-style-type: none"> • Michelle - Monday, January 14th: 10:00am – 12:00pm • Michael and Mara - Monday, January 14th: 2:00pm – 4:00pm
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • No one was able to attend

Map below depicts noted areas for First/Last Mile improvements.



Michael Skiles

- 1 Undergrad student housing
- 2 Pauley Pavilion
- 3 Central campus is the main location for classes
- 4 Pedestrian right of way issues
- 5 Graduate student housing
- 6 Student housing
- 7 Crosswalk improvements needed
- 8 2,000 grad student housing units
- 9 Congestion near I-405
- 10 Bike lanes needed
- 11 Bike lanes needed
- 12 Pedestrian improvements along Westwood Blvd
- 13 Shuttle opportunity
- 14 Lack of parking south of Wilshire Blvd
- 15 Pedestrian crossing
- 16 No crossing today
- 17 Cyclist route
-  Westwood/UCLA Station





Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Bill Wiley, *2 Rodeo*
Station: Wilshire/Rodeo Station
Date|Time: December 19, 2018 | 10am
Facilitated by: Bill Delo, *IBI*

Purple Line Stats:

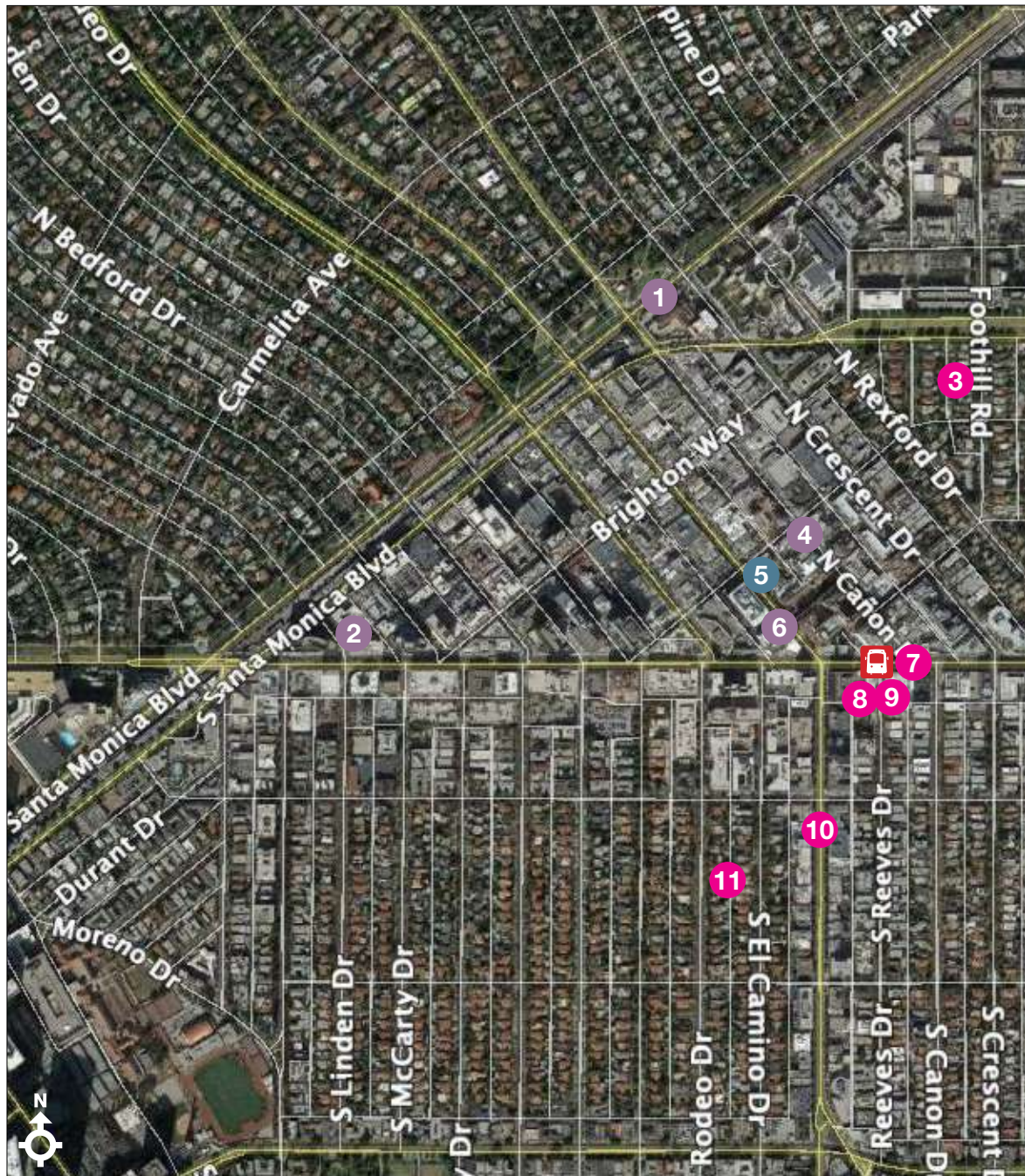
- Director of *2 Rodeo*, CPM Certified
- Very familiar with FLM planning efforts

Summary by: Marina Kay, *TRG*


QUESTIONS	ANSWERS
General	
<p>Which station(s) do you have a specific interest in related to station access and first-last mile?</p>	<ul style="list-style-type: none"> • Wilshire/Rodeo Station
<p>What do you see are the primary challenges for pedestrian and bicycle access to this station?</p>	<ul style="list-style-type: none"> • Need space for bikes on the train • Need for North and South bike connection, perhaps on Beverly Blvd or another street • Narrow streets discourage bike riding • Restrooms at the station is very important for all transit riders • Cleanliness makes it a terrific gateway for people to visit our neighborhood • Bike lockers are important as people take bikes on the train and then need to store them somewhere until they get back on the train
<p>What challenges do you have today walking, bicycling, driving, and parking in the station area?</p>	<ul style="list-style-type: none"> • More wayfinding markers on the street would allow for easier mobility




<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Major hotels and restaurants need pedestrian connections to the station • Hotels need walking access to station
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Hotels such as the Beverly Hilton and the Beverly Hills Hotel • Shops and landmarks such as Rodeo Drive, Melrose Avenue, and Beverly Gardens Park • Office buildings and business centers
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Connections to residential areas and South Beverly Hills commercial area • Bike lanes on N. Santa Monica Blvd would improve access
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • A Drop-off/pick-up area off Wilshire Blvd for Uber/Lyft vehicles would be beneficial
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Yes, information sent to Mr. Wiley on 1.2.2019
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Unable to attend

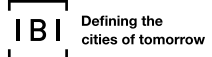
Map below depicts noted areas for First/Last Mile improvements.



Bill Wiley

- 1 Bike lane on N. Santa Monica Blvd
- 2 Connections to hotels via walking and bikes
- 3 Connections to residential areas
- 4 Bikes usually use sidewalk, but high pedestrian volumes
- 5 Narrow streets discourage bike riding
- 6 Need for north/ south bike connection; perhaps Beverly or other street
- 7 Need drop-off/ pick up area off Wilshire Blvd
- 8 Need station facilities and restrooms maintained
- 9 Bike lockers/ storage facilities
- 10 Restaurants need connection to station
- 11 Connections to residential and South Beverly commercial district
-  Beverly Hills Station

	Opportunities
	Barriers
	Origins/Destinations
	Bicycle/Pedestrian Comments





Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Blair Schechter; Todd Johnson
Station: Wilshire/Rodeo Station
Date|Time: December 3, 2018 | 3pm
Facilitated by: Bill Delo, Nicole Ross

Purple Line Stats:


- Beverly Hills Chamber of Commerce – Pres/ CEO; Dev. & Government Relations

QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Wilshire/Rodeo Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • The Station Area needs drop off / pick-up accommodations
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Crosswalk signal times need to be extended • Need for integrated mobility options such as Uber/Lyft, parking, e-scooters, etc.
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Hotels within walking distance • Hilton complex development • Central Business District – City Hall, Wallace Center • Residents travelling to DTLA
What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> • BH Hotel for workers • Workers from local businesses will use the line before visitors

<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Dense, mixed-use housing South of Wilshire
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Reference City of Beverly Hills Complete Streets plan regarding planned changes to incorporate.
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, January 12th and Monday, January 14th.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Will forward Walk Audit information to Government Affairs Committee
<p>If yes, which day?</p>	<ul style="list-style-type: none"> • Pending
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Unable to attend

Map below depicts noted areas for First/Last Mile improvements.

Blair Schechter, Todd Johnson

- 1 Need for connections from destinations located at further distances to train station
 - 2 How do pedestrians cross Wilshire Blvd? Make it safe and pleasant
 - 3 Drop off/ pick-off locations
 - 4 Create a mobility hub at station with bike and scooter storage
 - 5 Development planned. Need connection to station
 - 6 How to connect multi-family location here to station
-  Beverly Hills Station





Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Jessie Holzer, *City of Beverly Hills*

Station: Wilshire/Rodeo Station

Date|Time: December 7, 2018 | 1:30pm

Facilitated by: Bill Delo, *IBI*

Summary by: Marina Kay, *TRG*

Purple Line Stats:

- In person meeting at Beverly Hills City Hall
- Did not take map notes using Google Earth technology
- Additional participants: My La and Jacob Lieb, *Metro*; Aaron Kunz, *City of Beverly Hills*

QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Wilshire/Rodeo Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • One challenge is the wide cross section for Wilshire Blvd and difficulty crossing • Proposed PLE station is not located in the heart of downtown BH • City has raised an issue/interest in having a station portal on the north side of Wilshire, perhaps near Wilshire/Cannon intersection • N/S streets south of Wilshire could provide opportunities for bicycle boulevards
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Currently, City of Beverly Hills only has 2 bike lanes and 1 bike route today
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Beverly Hills City Hall

What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> Commercial areas, touristic landmarks
Are there specific neighborhoods or uses that would benefit from improved access to the station?	<ul style="list-style-type: none"> Station area is commercial north of Wilshire and residential south of Wilshire Commercial south of Wilshire is focused on Beverly Drive
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?	<ul style="list-style-type: none"> City currently has a 1-year ban on electric scooters There are concerns about pedestrian/scooter conflicts that the city wants to resolve before permitting scooters FLM plan will need to think about curbside management and pick-up/drop-off needs
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
Would you be interested in participating as an auditor for one of these events?	<ul style="list-style-type: none"> Yes City would be interested in inviting staff, traffic commission members, and council members to participate TRG to send invite to Jessie Holzer for distribution at the city
Walk Audit Participation	<ul style="list-style-type: none"> Unable to attend



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Gabriela Flores, *Cedar Sinai Medical Center*

Station: Wilshire/Rodeo Station

Date|Time: December 20, 2018 | 3:30pm

Facilitated by: Bill Delo, *IBI*

Purple Line Stats:

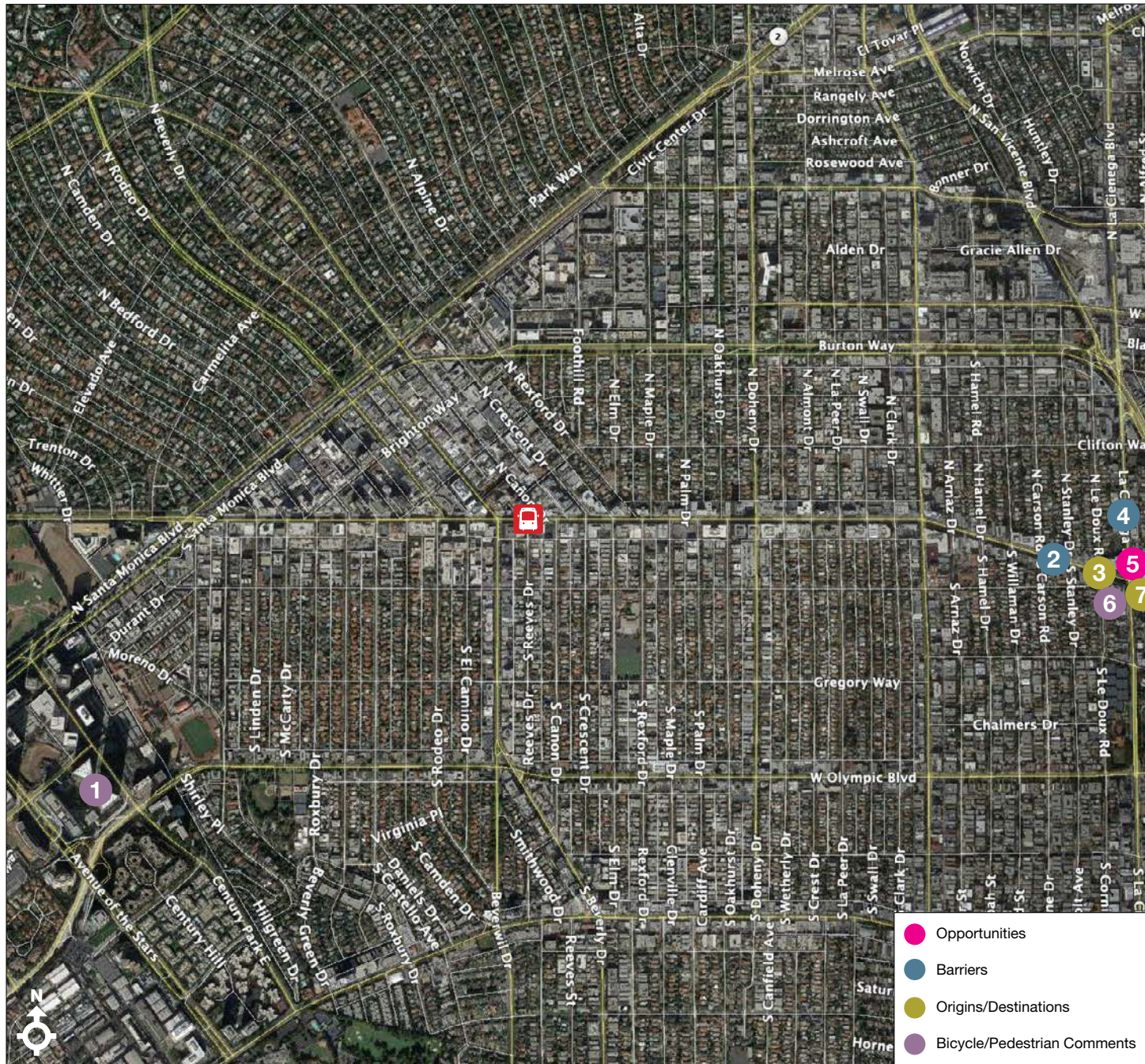
- Associate Director, Government and Industry Relations, Cedars Sinai Medical Center
- Somewhat familiar with FLM planning efforts
- Concerned with hospital access and traffic conditions

Summary: Marina Kay, *TRG*


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Wilshire/Rodeo Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • More bicycle access for hospital employees • Wilshire Blvd/La Cienega Blvd to hospital area has no safe pathways for bikers • Constant bottleneck traffic near hospital
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • No current safe pathway for bikers to ride in the area • Hospital employees cannot afford to sit in traffic with upcoming shifts • Many hospital employees are looking for alternative transportation options • Visiting patients are also affected by difficult access to hospital due to traffic congestion and lack of transportation options

<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Main hospital • Cedars Sinai is planning to build an Urgent Care facility across the street
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Will provide a list of key destinations to Bill in early January
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Wilshire Blvd/La Cienega Blvd Area • Area spanning from Century City to hospital area and greater Beverly Hills
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Need for ride share/ Uber/ Lyft drop off and pick up points • Interest in providing bike access from Century City to hospital area
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Will have someone from Century City location participate as well
<p>If yes, which day?</p>	<ul style="list-style-type: none"> • TBD
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Not able to attend

Map below depicts noted areas for First/Last Mile improvements.



Gabriela Flores

- 1 Interested in bike access
- 2 High traffic volumes all day
- 3 Ride share/drop-off/pick-up location
- 4 No current "safe" pathway
- 5 Planning urgent care facility near station
- 6 Bicycle access for employees
- 7 Wilshire/ La cienega
-  Beverly Hills Station



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: John Heidt
Station: Westwood/UCLA
Date|Time: December 4, 2018 | 10am
Facilitated by: Bill Delo, IBI; Nicole Ross, TRG

Purple Line Stats:

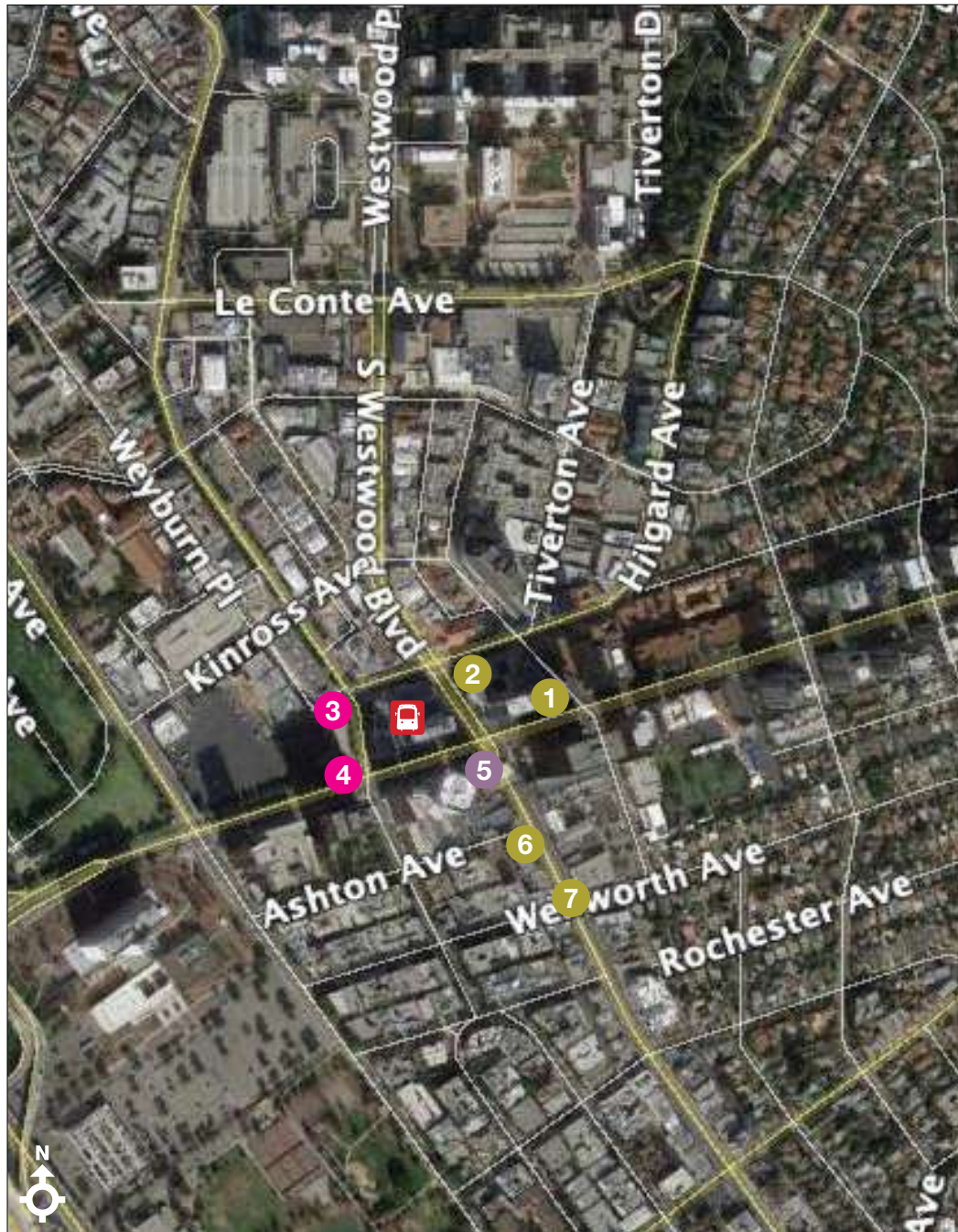
- Participated in original PLE Advisory Committee
- Local Real Estate Developer

QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Westwood/UCLA - Century City
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Seniors not going to ride birds and eScooters • More likely to use Uber/Lyft
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Safety concerns, ADA capacity/security for bikes • Fix potholes • Limit homeless access
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • VA Station - anticipated to have larger footprint
What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> • Hammer Museum • Crest Theater (recently acquired by UCLA) • Westwood Village
Are there specific neighborhoods or uses that would benefit from improved access to the station?	<ul style="list-style-type: none"> • South Wilshire – large Persian community


We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their

<i>station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i>	
What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?	<ul style="list-style-type: none"> • Possible Lyft/Uber drop-off in Lot 32 off Gayley and Wilshire Blvd
<i>Metro and the consultant team will be conducting walk audits at each station on Saturday, January 12th and Monday, January 14th</i>	
Would you be interested in participating as an auditor for one of these events?	<ul style="list-style-type: none"> • Will forward Walk Audit invite
Walk Audit Participation	<ul style="list-style-type: none"> • Attended Westwood-UCLA Walk Audit on Saturday, January 12, 2019.

Map below depicts noted areas for First/Last Mile improvements.



John Heidt

- 1 Hammer Museum
 - 2 Existing taxi loading area
 - 3 Bike storage opportunity?
 - 4 Possible Lyft/ Uber drop-off/ Lot 32
 - 5 Need to widen sidewalk on Westwood Blvd
 - 6 Crest Theater – converted to live theater/ UCLA owned
 - 7 Persian Square – business district south of Wilshire Blvd on Westwood Blvd
-  Westwood/UCLA Station

-  Opportunities
-  Barriers
-  Origins/Destinations
-  Bicycle/Pedestrian Comments



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Juan Matute
Station: Westwood/UCLA Station
Date|Time: December 13, 2018 | 10:30am
Facilitated by: Bill Delo; Nicole Ross

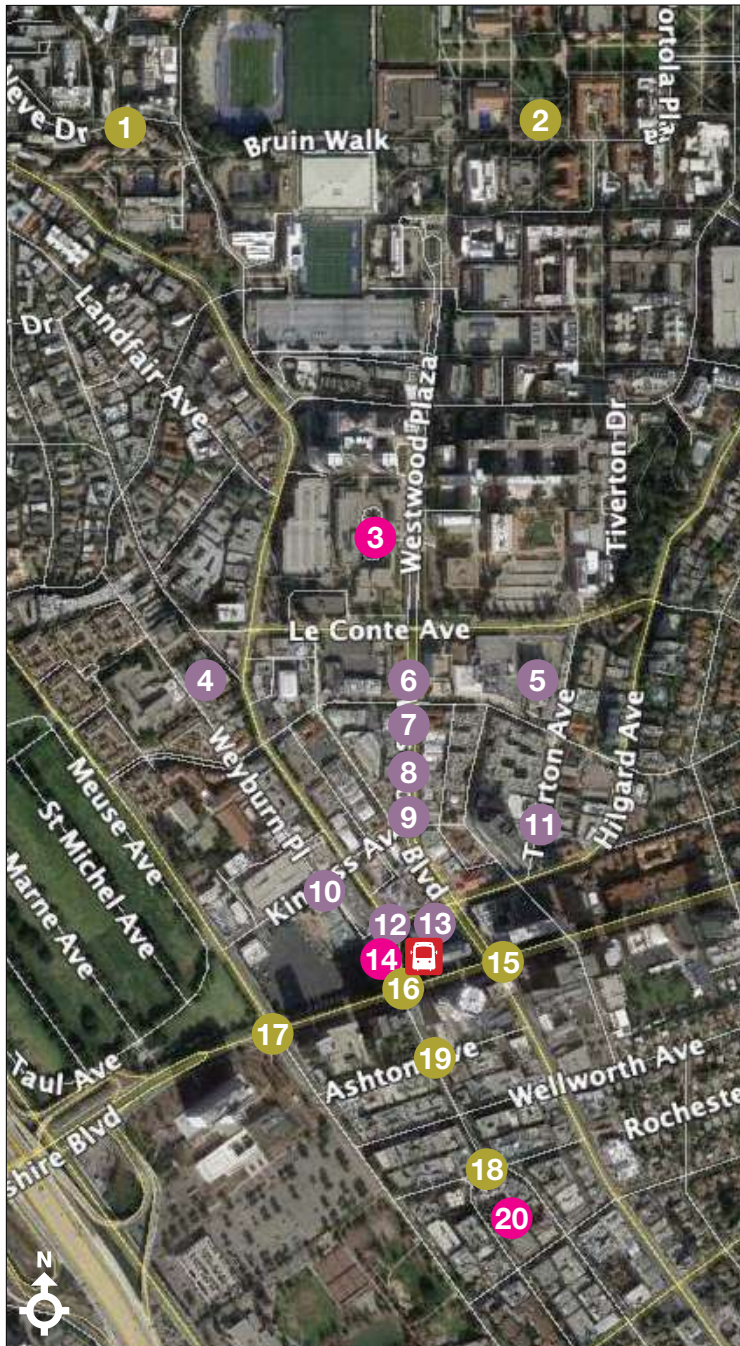
Purple Line Stats:

- Associate Director; UCLA Lewis Center and the Institute of Transportation Studies
- Appointed to Neighborhood Council


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Westwood/UCLA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Mindful of rush hours where there is increasing pedestrian traffic • Need plan to manage those surges in pedestrian traffic • Difficult pedestrian crossing of Wilshire Blvd
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Bike signals not timed well • Long traffic signal cycles delay pedestrian crossings on Wilshire Blvd • Lindbrook and Gayley Ave is missing a pedestrian crosswalk on the southern leg • Uphill travel from station required in order to access northern part of UCLA campus – Important to consider options for pedestrians going in this direction
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Westwood Blvd. - needs a bike lane • UCLA • Ronald Reagan UCLA Medical Center – within walkshed of station
What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> • UCLA • Ronald Reagan UCLA Medical Center



<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Graduate students housing • Working professionals living in adjacent neighborhoods need easy access to Westwood Village • Wilshire Blvd. – needs pedestrian improvements such as widened sidewalks to increase capacity
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in January.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • In favor of micro-mobility plan with options for bike share, e-Scooters, Uber/Lyft • Important to have protected/separated bike lanes • Need bike hub • Multilevel parking facility needed
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, January 12th and Monday, January 14th</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Will circulate Walk Audit invite to Grad students studying transportation.
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Unable to attend

Map below depicts noted areas for First/Last Mile improvements.



Juan Matute

- 1 Uphill travel from station
- 2 Uphill travel from station
- 3 Medical center within walkshed
- 4 Pedestrianization of Weyburn Pl is desirable
- 5 Connects to on-campus bike boulevard via Tiverton Ave
- 6 Consider mid-block crossing
- 7 Westwood Blvd bike lane should be considered
- 8 Bike lane would serve scooters as well
- 9 Protected/ separated bike lane
- 10 Improve this intersection for pedestrian crossings
- 11 Contra-flow bike lane
- 12 Scramble crossing location
- 13 Lindbrook Dr WB/ Gayley Ave SB – missing a pedestrian crosswalk on south leg
- 14 Station area storage of micro-mobility devices
- 15 Long traffic signal cycles delay crossings of pedestrians at Wilshire Blvd
- 16 Difficult pedestrian crossing of Wilshire Blvd
- 17 Pedestrian crossing of Wilshire Blvd difficult
- 18 Challenging intersection configuration for pedestrians/ bikes
- 19 Intersection difficult for pedestrians and need improvement; has UCLA shuttle stop
- 20 Popular neighborhood for UCLA related professionals
-  Westwood/UCLA Station

	Opportunities
	Barriers
	Origins/Destinations
	Bicycle/Pedestrian Comments



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Brentwood Community Council

Station: Century City/VA Station

Date|Time: December 13, 2018 | 1pm

Facilitated by: Bill Delo; Nicole Ross

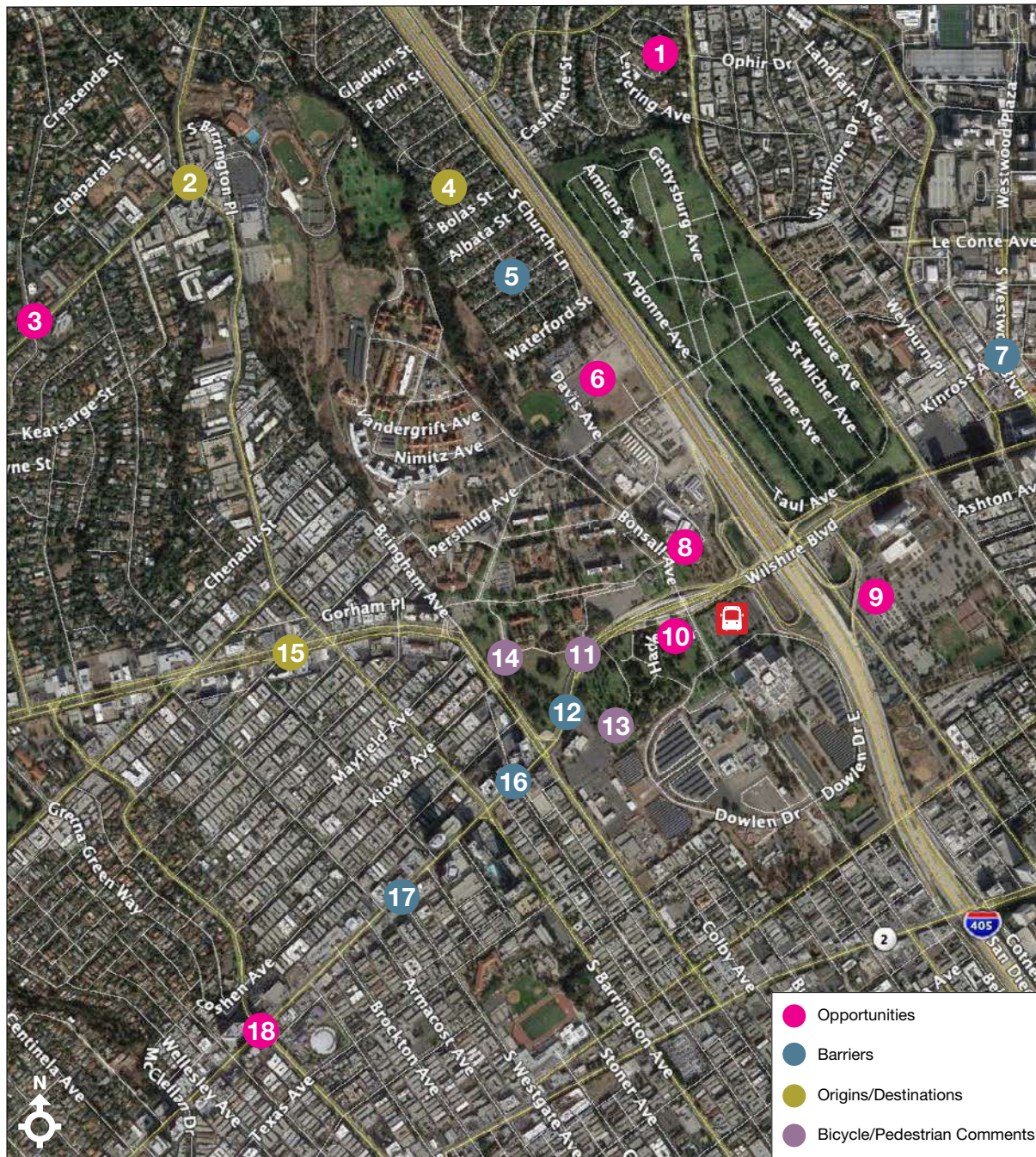
Purple Line Stats:

- Attended by Lauren Cole & Cori Solomon, *BCC Transportation Committee*; Florence Chapgier, *BCC Representation Committee*
- Various neighborhoods represented
- Most concerned with congestions and parking


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • VA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Currently, this station is the end of the line, so they anticipate tons of gridlock. Need updated traffic plan. • Station is a far distance from neighboring communities. How will transit to and from drop-off/pick-up at the station be managed?
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Biking: <ul style="list-style-type: none"> • Narrow sidewalks • Wilshire Blvd is too busy • No safe way to bike from Brentwood – too far for many people to walk or bike – could there be shuttles? • Parking: <ul style="list-style-type: none"> • Need fees to incentivize ridership, but not too low to attract UCLA students • Need parking facilities and space for Uber/Lyft • Pedestrian: <ul style="list-style-type: none"> • Too far to walk

<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Century City • DTLA
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Same as above
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Brentwood Glen • Above Sunset Blvd • South Brentwood • Westwood Hills
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Not a fan of the aesthetics of e-scooters, clutter and safety • Uber/Lyft preferred to deter congestion
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<p>Yes. Forwarded Walk Audit eblast to group during call. Members agreed to forward on to the larger Council.</p>
<p>If yes, which day?</p>	<p>Pending</p>
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Did not attend

Map below depicts noted areas for First/Last Mile improvements.



Brentwood Community Council

- 1 How to link Westwood Hills to stations
 - 2 Brentwood Village commercial district
 - 3 Shuttle access from this area to station
 - 4 Brentwood Glen Community
 - 5 Potential parking impacts? Given proximity to station
 - 6 There is an existing pathway to Constitution Ave
 - 7 Limited parking Westwood Village
 - 8 Access to station from Brentwood Glen to the north
 - 9 Potential shared parking for stations?
 - 10 Consider shuttle service from surrounding areas
 - 11 Wilshire not friendly to bicycling
 - 12 Heavy traffic congestion, particularly across I-405 freeway
 - 13 Is there a way to walk/cycle through VA property?
 - 14 Gated/ open access to station from San Vicente Blvd
 - 15 San Vicente business district
 - 16 Limited parking here due to density/ retail activity
 - 17 Difficult for north/ south travel across Wilshire Blvd on bike
 - 18 Shuttle link from this area to station
-  VA Hospital Station



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Nancy Wood
Station: Constellation Station
Date|Time: December 12, 2018 | 3pm
Facilitated by: Bill Delo, Nicole Ross

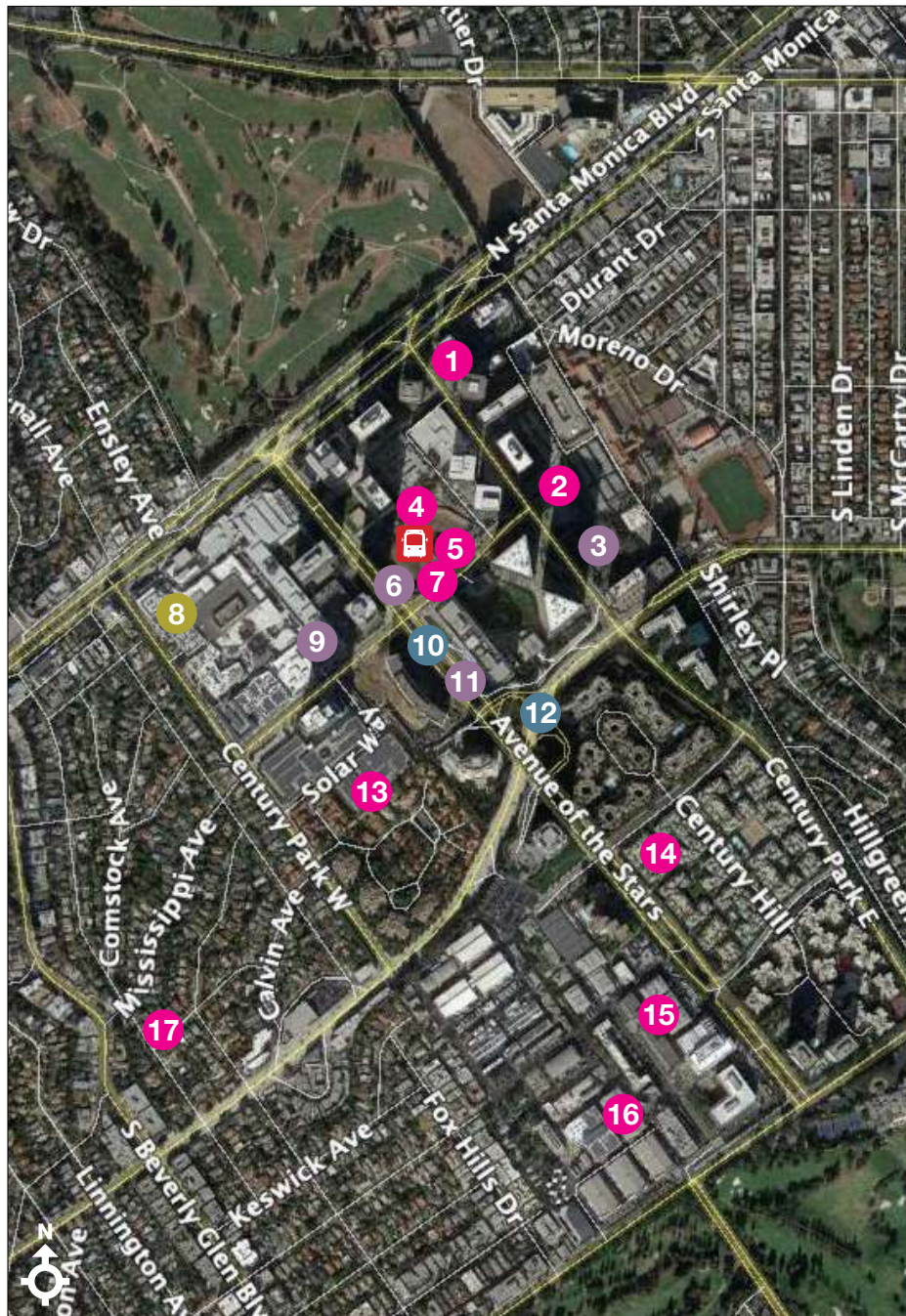
Purple Line Stats:

- President & CEO; Century City Chamber of Commerce
- Several CCCC Board Members


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Century City/Constellation Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Lots of traffic. Where would bike lanes be located? From 11am-2pm there is considerable pedestrian traffic • Bike lanes are a concern in Century City. Problematic to add them on Ave. of the Stars • Busy Ave of the Stars traffic makes pedestrians feel unsafe • Important to think about how residential neighborhoods surround Century City will access the station – consider providing a shuttle to and from Century City?
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • On Constellation & Ave of the Stars -street lights need to be updated and sequenced • Construction in area is causing more congestion

<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Equal destination for visitors and residents; attorneys who can access DTLA
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Fox • Century City Mall • Important to have a pedestrian connection to Century Park East
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • Nearby residential condos • Century Woods
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<p>In and around station</p> <ul style="list-style-type: none"> • Possibility of providing station parking – what would be the cost? • Need for pedestrian bridges • Current bridge crossing is a barrier – the sidewalk is narrow, the railing is rather low, and there is significant pedestrian traffic • Fox has a shuttle that runs by 11am-3pm to the mall <p>Favorable of Uber/Lyft</p> <ul style="list-style-type: none"> • Need for Uber/Lyft drop off location; where should it be located? • One pick-up spot suggestion is along Santa Monica Blvd <p>Possible challenges for seniors riding scooters:</p> <ul style="list-style-type: none"> • Where will they be riding? • What sort of regulations? • How will we maintain public safety?
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Yes
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Unable to Attend

Map below depicts noted areas for First/Last Mile improvements.



Nancy Wood

- 1 Pick up spot along Santa Monica Blvd?
 - 2 Connections to Century Park East
 - 3 Consider bike lanes in Century Park East
 - 4 Scooter parking at station
 - 5 Uber/ Lyft drop off location – where?
 - 6 Need for pedestrian bridges?
 - 7 Congestion (traffic) and traffic signal timing at this intersection
 - 8 Mall would be key destination
 - 9 High pedestrian volumes
 - 10 High auto traffic volumes
 - 11 Where would bike lanes fit on Avenue of the Stars?
 - 12 Bridge crossing is a barrier, narrow sidewalk, high use, low railing
 - 13 Possible station parking? What would be the cost?
 - 14 Shuttle to residential/business in Century City?
 - 15 How to connect to Fox property?
 - 16 Fox has Shuttle 11-3 to the Mall
 - 17 How will these neighborhoods access the station?
-  Century City Station

-  Opportunities
-  Barriers
-  Origins/Destinations
-  Bicycle/Pedestrian Comments



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Steven Sann, *Westwood Community Council*

Station: UCLA/Westwood Station

Date|Time: January 18, 2018 | 9:00am

Facilitated by: Bill Delo, *IBI*

Summary by: Marina Kay, *TRG*

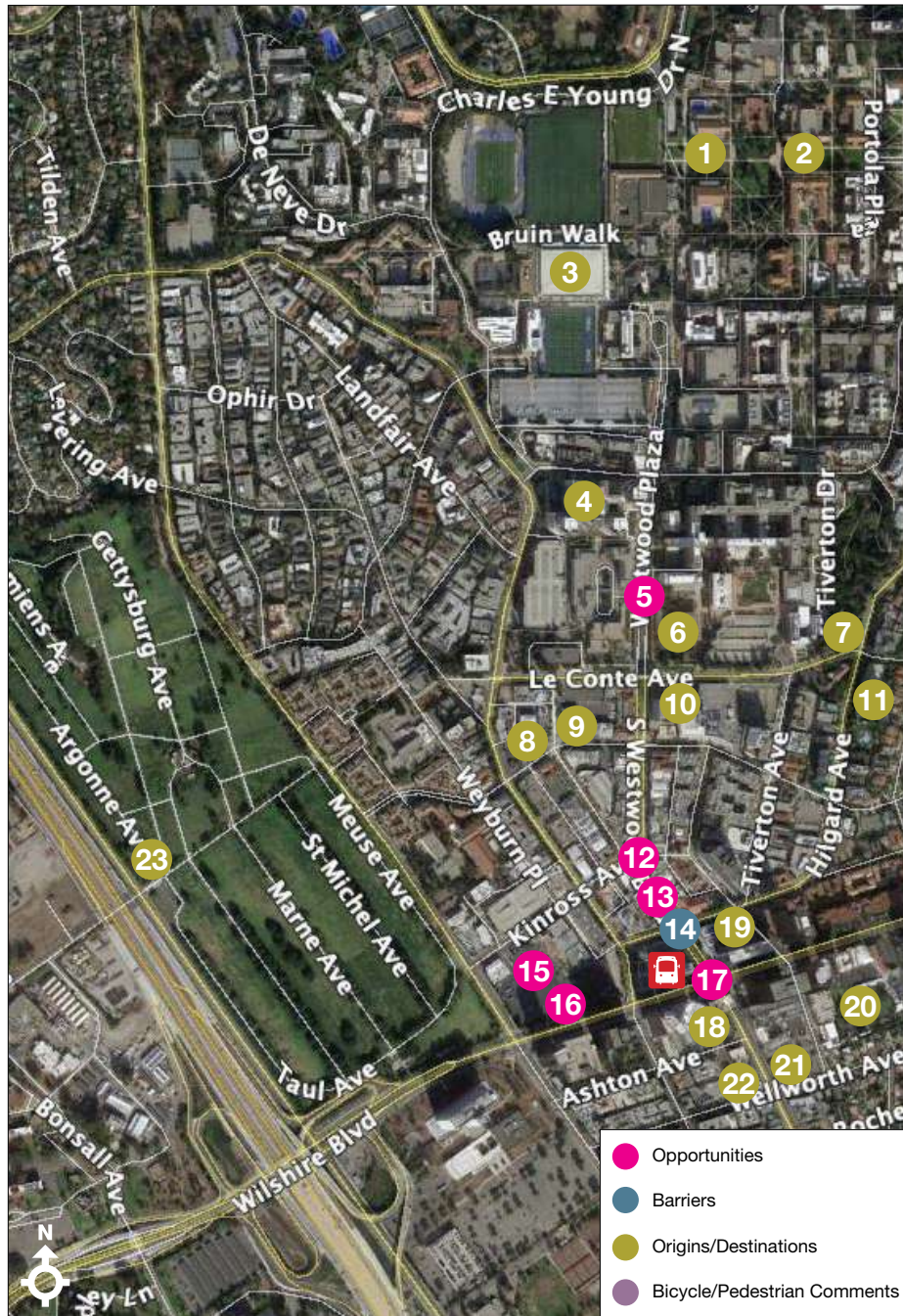
Purple Line Stats:

- Chair of Westwood Community Council
- Very familiar with Westwood history at area
- On Stationary Advisory Group 10 years ago
- Writing a book on the history of the Westwood Village


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • Westwood/UCLA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • On South side of 10900 Wilshire, station portal is only planned to have a single set of stairs and escalator, NOT an elevator • Tight area at Chase Bank portal with wide street, narrow sidewalk • Gayley Ave also has substandard sidewalks • Existing bus shelter on extremely narrow sidewalk
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Double southbound right turns; need to widen sidewalk/balance with traffic flow • Barrel cactus is being planted in pedestrian areas, not a safe plant choice • Uneven sidewalks in need of repair; many damaged by tree roots.
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Create open plaza for riders in Chase Plaza, a 'celebrated corner' for people from all walks of life

<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Access to Westwood Memorial Cemetery, Westwood’s top tourist destination, where Marilyn Monroe is buried • Geffen Playhouse • Hammer Museum – Quarter of a million patrons; will only grow as a tourist destination • Library – One of Top 10 libraries in Los Angeles • Crest Theater; just purchased by UCLA; will become UCLA Nimoy Theater and will undergo massive revitalization • Fowler Museum of Cultural History may be relocated to Lot 36 portal area • Possible new UCLA theater also in Lot 36 portal area along Wilshire Blvd • Fox Theater and Bruin theater • UCLA Medical Center • Stein Eye Institute • W Los Angeles Hotel • UCLA Mathias Botanical Garden • UCLA Pauley Pavilion • UCLA Royce Hall Performing Arts • Franklin D. Murphy Sculpture Garden
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • See question 2
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Many e-scooter riders are unaware of scooter operating laws • Scooter riders don’t have room on the street, so they often travel on the sidewalk
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Yes
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Participate in Westwood/UCLA Station Walk Audit on Saturday, January 12, 2019

Map below depicts noted areas for First/Last Mile improvements.



Steven Sann

- 1 Fowler Museum Current Blog
 - 2 Royce Hall Performing Arts
 - 3 Pauley Pavilion
 - 4 UCLA Medical Center
 - 5 Connections to UCLA campus are important
 - 6 Stein Eye Institute
 - 7 UCLA Botanical Garden
 - 8 Fox Theatre (Movie Previews/ Premieres)
 - 9 Bruin Theatre
 - 10 Geffen Playhouse
 - 11 W Los Angeles Hotel
 - 12 Replace Ficus trees with Chinese flame trees
 - 13 Would like to see trees and median electrical conduit for lighting
 - 14 Existing bus shelter narrows sidewalk
 - 15 Possible new theatre
 - 16 Potential site for UCLA Fowler Museum
 - 17 Create open plaza for riders, "Celebrate" this corner
 - 18 Concentration of office spaces south of Wilshire
 - 19 Hammer Museum
 - 20 Westwood Memorial Cemetery, most visited location
 - 21 Crest Theatre, purchased by UCLA, Nimoy Theater
 - 22 Persian Square Community
 - 23 LA National Cemetery, 2nd Largest in the U.S.
-  Westwood/UCLA Station



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Zack Gold, *UCLA Bike Coalition*

Station: Westwood/UCLA Station

Date|Time: December 4, 2018 | 10am

Facilitated by: Bill Delo, *IBI*

Summary by: Marina Kay, *TRG*

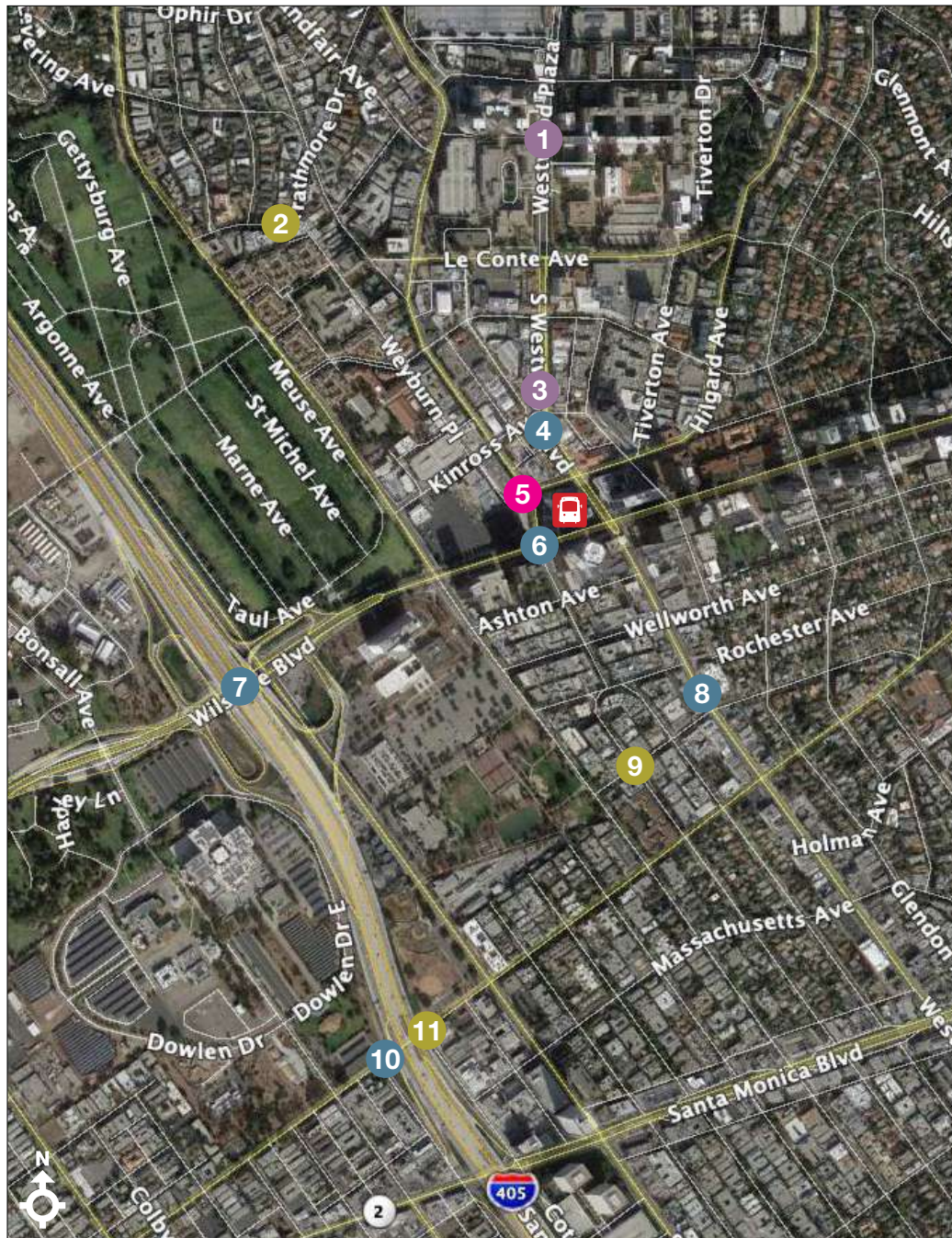
Purple Line Stats:

- Very familiar with Westwood area and PLE Planning efforts
- Avid bike advocate
- Also on the call: Anna Geannopoulos, *UCLA Bike Coalition*


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • UCLA Station
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Crossing the 405 underpass/overpasses safely is an issue • Ohio Ave is key crossing • Wilshire is a very wide street, difficult for pedestrians to cross
What challenges do you have today walking, bicycling, driving, and parking in the station area?	<ul style="list-style-type: none"> • Conflict between pedestrians and scooter riders • Scooter riders don't have bike lanes and feel unsafe on the street • Thus, they revert to sidewalk and annoy pedestrians
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Potentially having a bike lane to connect Wilshire to UCLA campus • Bike parking for UCLA students going to Internships in DTLA • Keeping bikes safe and providing bike space on the train • Cell service/WiFi in stations

<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • UCLA campus • Westwood Village • Student housing
<p>Are there specific neighborhoods or uses that would benefit from improved access to the station?</p>	<ul style="list-style-type: none"> • A lot of people live in Palms take Expo Line • But if they live on campus, they would take the Purple Line • Many students living south of 1-10 Freeway • Many students also live in Hollywood area • Students that live in graduate student housing <ul style="list-style-type: none"> - On Weyburn and Gayley - National and Sepulveda Blvd area
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
<p>What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?</p>	<ul style="list-style-type: none"> • Electric scooters – students will want to take them on the last mile • Accommodate them within the network • UCLA is a hilly campus, so electric scooters are preferred • Need for policy implementation regarding X- crossing rules for scooter riders • Law in place regarding scooters needs to be displayed through signage
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<ul style="list-style-type: none"> • Other caller, Anna Geannopoulos, will attend
<p>Walk Audit Attendance</p>	<ul style="list-style-type: none"> • Anna Geannopoulos attended Westwood/UCLA Station Walk Audit on Saturday, January 12, 2019

Map below depicts noted areas for First/Last Mile improvements.



Zack Gold

- 1 Connection to UCLA Bike share
 - 2 Grad student housing; Gayley connection
 - 3 1 of 2 primary bike access routes to UCLA
 - 4 Lack of bike lanes creates pedestrian/ scooter conflicts on sidewalk
 - 5 Need for secure bike parking at Metro station
 - 6 Wilshire Blvd is a wide street to cross for pedestrians
 - 7 Not a pleasant pedestrian crossing of I-405 freeway
 - 8 1 of few streets to cross I-10 – lots living south of I-10
 - 9 Connection to Gayley Ave via Ohio Ave
 - 10 Low traffic volume, but not pleasant crossing
 - 11 Ohio Ave key crossing of I-405
-  Westwood/UCLA Station

-  Opportunities
-  Barriers
-  Origins/Destinations
-  Bicycle/Pedestrian Comments



Purple Line Extension First/Last Mile Stakeholder Interview

Stakeholder: Andrew Thomas
Station: UCLA Station
Date|Time: November 26, 2018 | 10am
Facilitated by: Bill Delo; IBI
Summary by: Nicole Ross, TRG

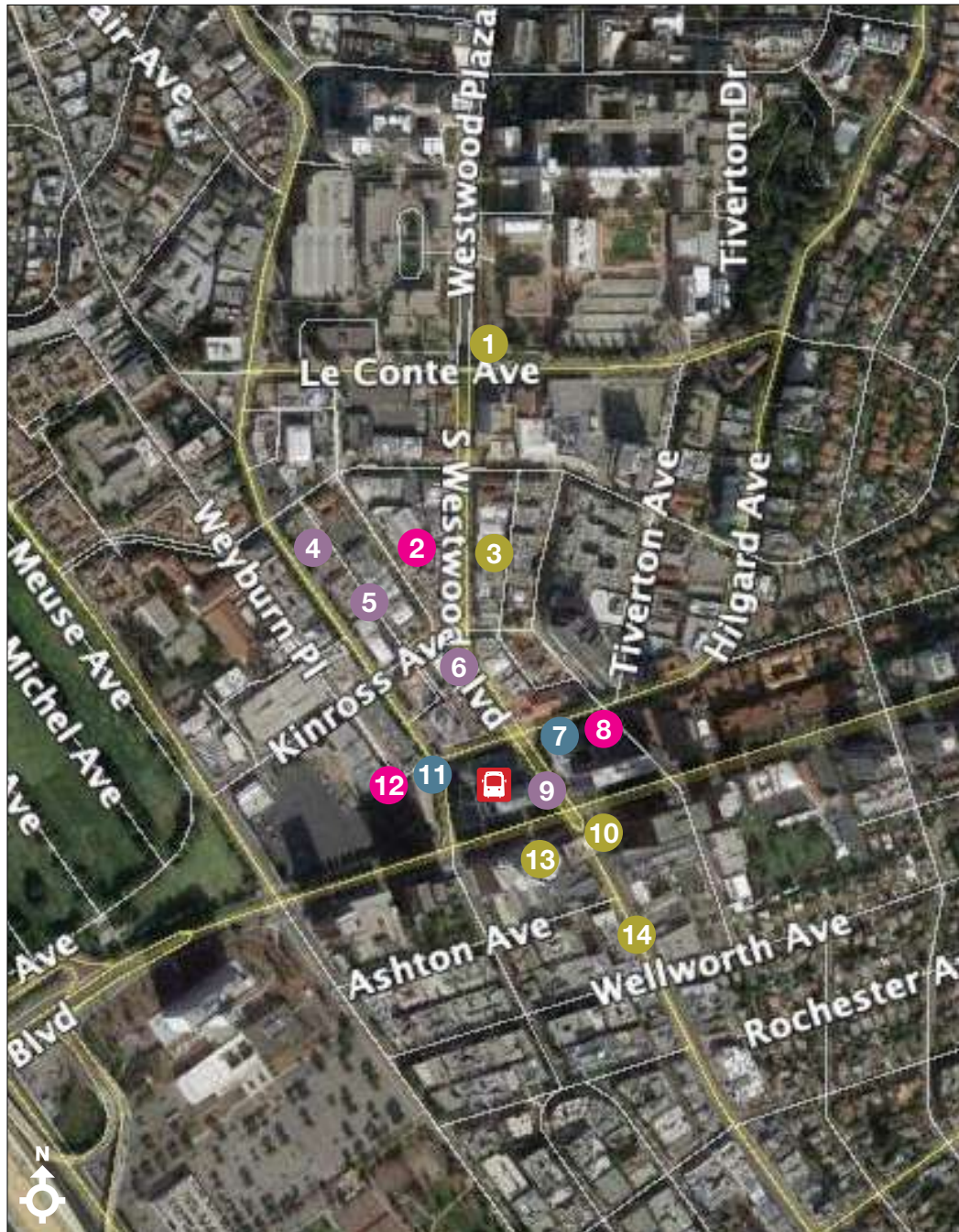
Purple Line Stats:

- Executive Director, Westwood Village Improvement Association (BID)
- Very familiar with FLM planning efforts


QUESTIONS	ANSWERS
General	
Which station(s) do you have a specific interest in related to station access and first-last mile?	<ul style="list-style-type: none"> • UCLA
What do you see are the primary challenges for pedestrian and bicycle access to this station?	<ul style="list-style-type: none"> • Sidewalks are not wide enough • Westwood Village is not welcoming space • There was previous uproar from community with proposed installment of bike lanes on Westwood Blvd 4-5 years ago
What key destinations or uses would you (and people in your organization/group) access using this station?	<ul style="list-style-type: none"> • Commuters will travel to work or live in surrounding 3 to 5 million square feet on Wilshire Blvd
What are the key destinations people are traveling to in this station area?	<ul style="list-style-type: none"> • Westwood Village shops and offices • UCLA Campus
Are there specific neighborhoods or uses that would benefit from improved access to the station?	<ul style="list-style-type: none"> • Implement road diet on Westwood from Wilshire to UCLA Campus • Remove media and install trolley • Open Multi-modal facility in center of campus
<p><i>We will utilize a station area map – hard copy for in person interviews and via GoTo meeting for conference call interviews – to provide stakeholders with an opportunity to comment about specific pathways, connections, and constraints located in their station area(s) of focus. This information will be helpful to receive direct feedback in the station areas and would be added to the input we receive from the walk audits that will be conducted in December.</i></p>	
What about other modes of travel to access the station – e-scooters, Uber/Lyft, bus – What challenges and opportunities to you see with these modes of travel?	<ul style="list-style-type: none"> • e-Scooters <ul style="list-style-type: none"> – PRO: Good for reducing traffic – CON: Conflicts with Pedestrian movement on sidewalks but are no barriers to protect riders from traffic • Uber/Lyft

	<ul style="list-style-type: none"> - There is no regular destination - There is a need for designated pickup/drop-off locations, perhaps on Lindbrook Drive?
<p><i>Metro and the consultant team will be conducting walk audits at each station on Saturday, December 1 and Monday, December 3.</i></p>	
<p>Would you be interested in participating as an auditor for one of these events?</p>	<p><i>Yes. Andrew RSVP'd and sent over 7 names that were added to the Walk Audit invite distribution list.</i></p>
<p>If yes, which day?</p>	<p>January 14, 2018</p>
<p>What challenges do you have today walking, bicycling, driving, and parking in the station area?</p>	<ul style="list-style-type: none"> • Would like to see a study of Gayley Ave and Westwood Blvd and trade-offs for bicycle lanes on both • Gayley Ave has some challenges for bike lanes as it requires a road diet and the street is a primary emergency route to Reagan/UCLA Medical Center • Gayley Ave is a forgotten street in terms of pedestrian activity • Hammer Museum is reconstructing their entrance, so this may create opportunity for better connection

Map below depicts noted areas for First/Last Mile improvements.



Andrew Thomas

- 1 UCLA is a key destination
- 2 Available store front possible use for bike station/ transit store
- 3 Westwood Village is a key destination
- 4 Gayley Ave needs a wider sidewalk; zone of high through auto volumes
- 5 Gayley Ave bike lane may need a road diet
- 6 Study bike lanes on Westwood Blvd.
- 7 Current taxi zone here on Lindbrook Dr– is this required to stay?
- 8 Connection with station from taxi zone would be good
- 9 Need wider sidewalks on Westwood Blvd
- 10 Entryway to Westwood Village/ UCLA
- 11 Proposed high-rise residential project to be aware of
- 12 Privately owned alley; potential connection route
- 13 Wilshire Corridor is a key destination
- 14 UCLA Crest Theatre
-  Westwood/UCLA Station

-  Opportunities
-  Barriers
-  Origins/Destinations
-  Bicycle/Pedestrian Comments

4. Walk Audit Summary

Walk Audits are collaborative, field-based research activities wherein participants are asked to walk around station areas (within the typical 1/2-mile radius representing a 10-minute walk to the station). The purpose of the walk audit is for participants to observe the built environment and its impacts on transit access, safety/ comfort, and connectivity. Eight walk audits – two at each station – were conducted in January 2019 to gather on-the-ground knowledge of first/ last mile conditions around the four Purple Line stations. In total, there were 66 auditors who recorded a total of 462 observations at the eight audits.

Auditors were given tablets and trained on how to record observations using Metro’s First/Last Mile app. The app allowed auditors to geographically log observations with photos. Participants were asked to classify their observations as either a barrier, strength, or idea and categorize it among numerous categories.

At the Wilshire/ Rodeo Station, observations focused on improving sidewalk and crosswalks for pedestrians. Auditors also identified opportunities for new bicycle infrastructure and wayfinding signage.

At the Century City / Constellation Station, observations again focused on improving sidewalks and crosswalks. These observations focused primarily on Santa Monica Boulevard, Avenue of the Stars, and Century Park E. Pedestrian lighting was also identified as a focus area.

At the Westwood / UCLA Station, observations focused on improving sidewalks to alleviate pinch points and reflect ADA standards. Improving crosswalks was also important to auditors, particularly along Wilshire Boulevard and the 405 Freeway on and off-ramps.

At the Westwood / VA Hospital Station, improving sidewalks was mentioned most frequently. Auditors also identified improving crosswalk safety as well as general safety for pedestrians. For the latter, auditors suggested adding pedestrian-oriented lighting and landscaped buffers to protect pedestrians from high-speed traffic.

The results of the walk audits were summarized in maps showing the density of audit observations. The observations were analyzed to identify corridor-wide trends and location-specific insight to improve the public realm. The density maps also include key observations as well as a percentage of the most commonly recommended improvements.

More information on the eight walk audits, the audit process, and the density maps can be found in the “Walk Audit Results” document.

5. Pop-Up Events Summary

As part of the Metro Purple Line Extension Sections 2 & 3 First/Last Mile planning efforts, members of the consultant team including staff from IBI, The Robert Group (TRG) and HereLA engaged in a community outreach effort consisting of pop-up events at various farmers markets and community events with the purpose of gathering public input on first/last mile improvements in each of the four station areas.

Seven pop-ups were held in Spring / Summer of 2019 to gather community input about first/last mile planning around four Purple Line Extension stations:

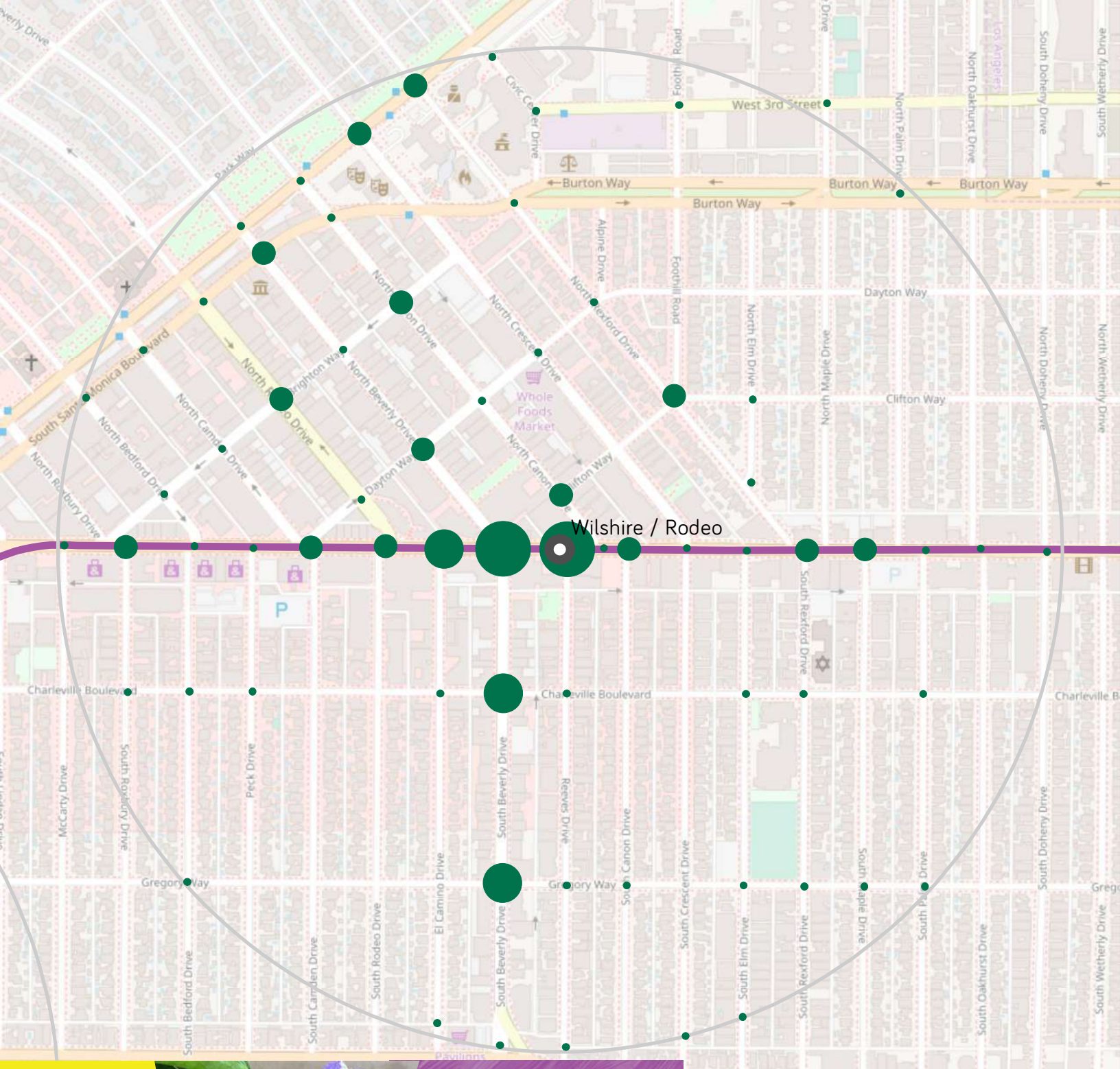
Wilshire/Rodeo Station	Beverly Hills Farmers' Market, Public Works Day: June 2, 2019
Century City/Constellation Station	Century City Farmers' Market: June 13, 2019
Westwood/UCLA Station	Westwood Farmers' Market: June 6, 2019 UCLA Semel Healthy Campus Initiative: May 23, 2019
Westwood/VA Hospital	West LA Farmers' Market: June 9, 2019 Brentwood Farmers' Market: June 16, 2019 Veterans Administration Hospital: August 24, 2019

Throughout the engagement effort, the consultant team gathered feedback about the technical aspects of the proposed improvements, along with general comments that included project recommendations and requests for station-specific amenities.

The activity used to collect feedback at the pop-up events consisted of a station area map table that illustrated the corresponding pathway network. The participants were told to choose from a number of colored stacker chips that represented a type of first/last mile improvement and stack them at the appropriate intersection. If they thought a chip should be applied to an entire street or corridor, they were encouraged to thread a string through a stacker chip and extend it across the area they wanted to see improved. This data was subsequently gathered and analyzed by HereLA. At all seven pop-ups, passersby were eager to participate or learn more about the project. While some people were unaware of the Purple Line Extension Project in general, or simply didn't know there was a station coming to the area, most were happy to learn more about the project and provide their recommendations.

The maps on the following pages illustrate the input received from the first six pop-up events. The seventh event, conducted at the VA Medical Center was held separately in terms of timeframe, so a comparable illustration was not prepared. However, the input received at this pop-up event was fully incorporated into the pathway network development process. The map results summarize overall spot and corridor improvements, as well as highlight top improvements by intersection.

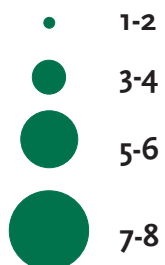




WILSHIRE/RODEO POP UP SUMMARY Pop Up Date: 06.02.19

Beverly Hills Farmers' Market

Proposed Spot Improvements by Intersection



Top 5 Intersections:

- Wilshire Blvd & Reeves Dr (8)
- Wilshire Blvd & Beverly Dr (7)
- Wilshire Blvd & Rodeo Dr (5)
- Beverly Dr & Charleville Blvd (5)
- Beverly Dr & Gregory Way (5)

169 Total Proposed Improvements

149 Total Spot Improvements

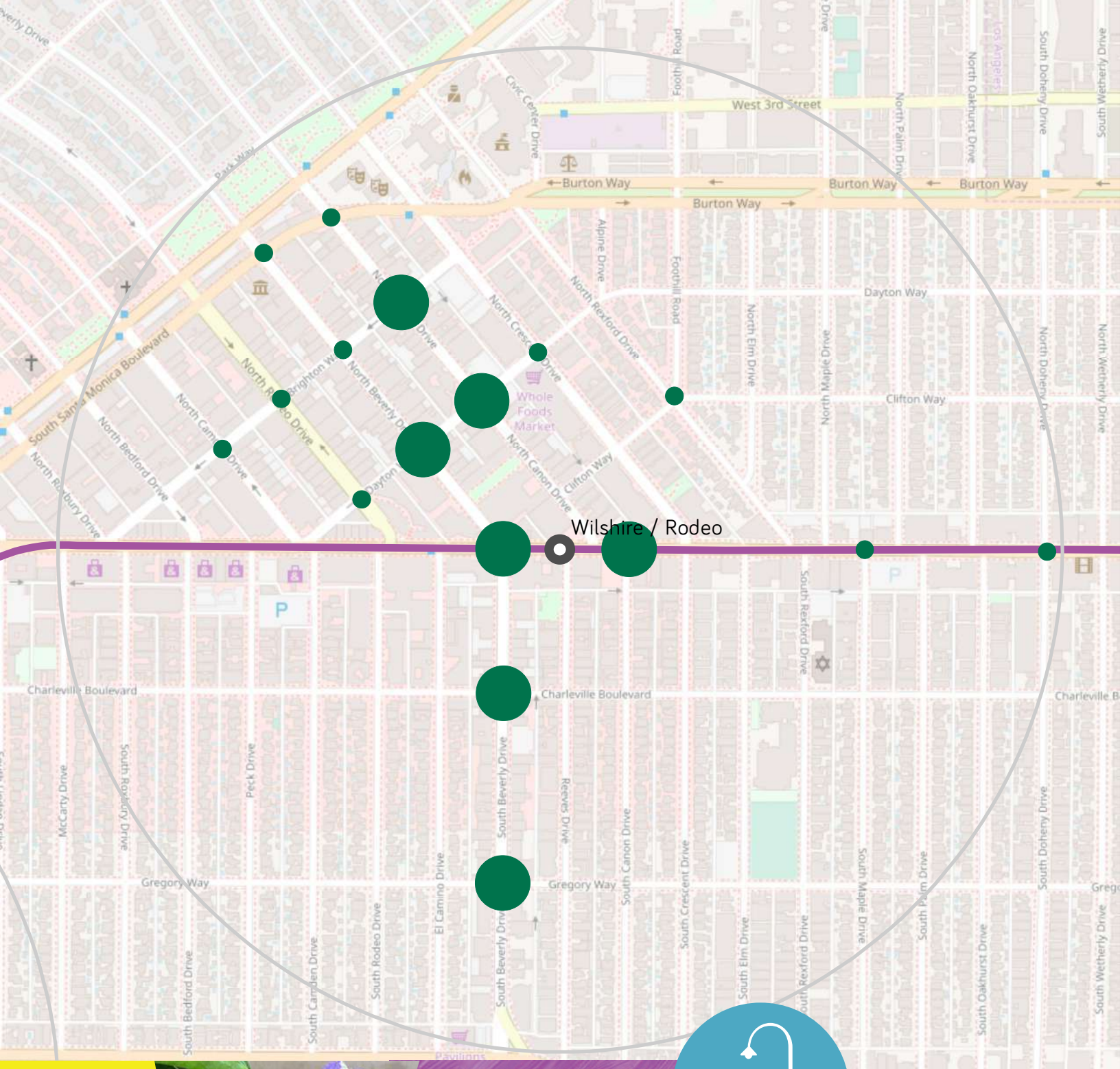
Street Furniture (24)

Crosswalks (22)

Bike Friendly Intersections (19)

(Top 3)

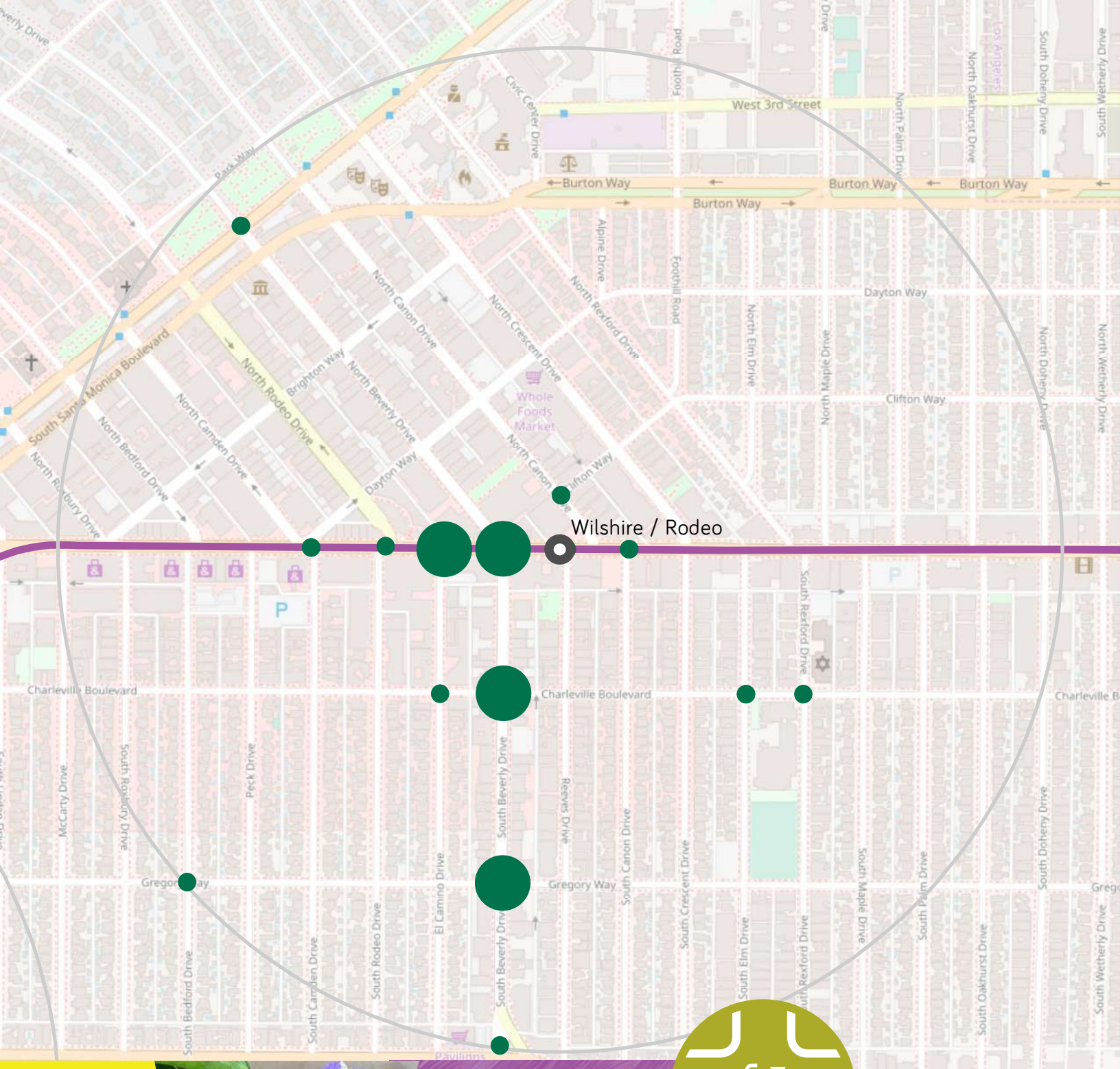
20 Total Corridor Improvements



WILSHIRE/RODEO POP UP SUMMARY *Pop Up Date: 06.02.19*

Proposed Street Furniture Spot Improvements

- 1
- 2

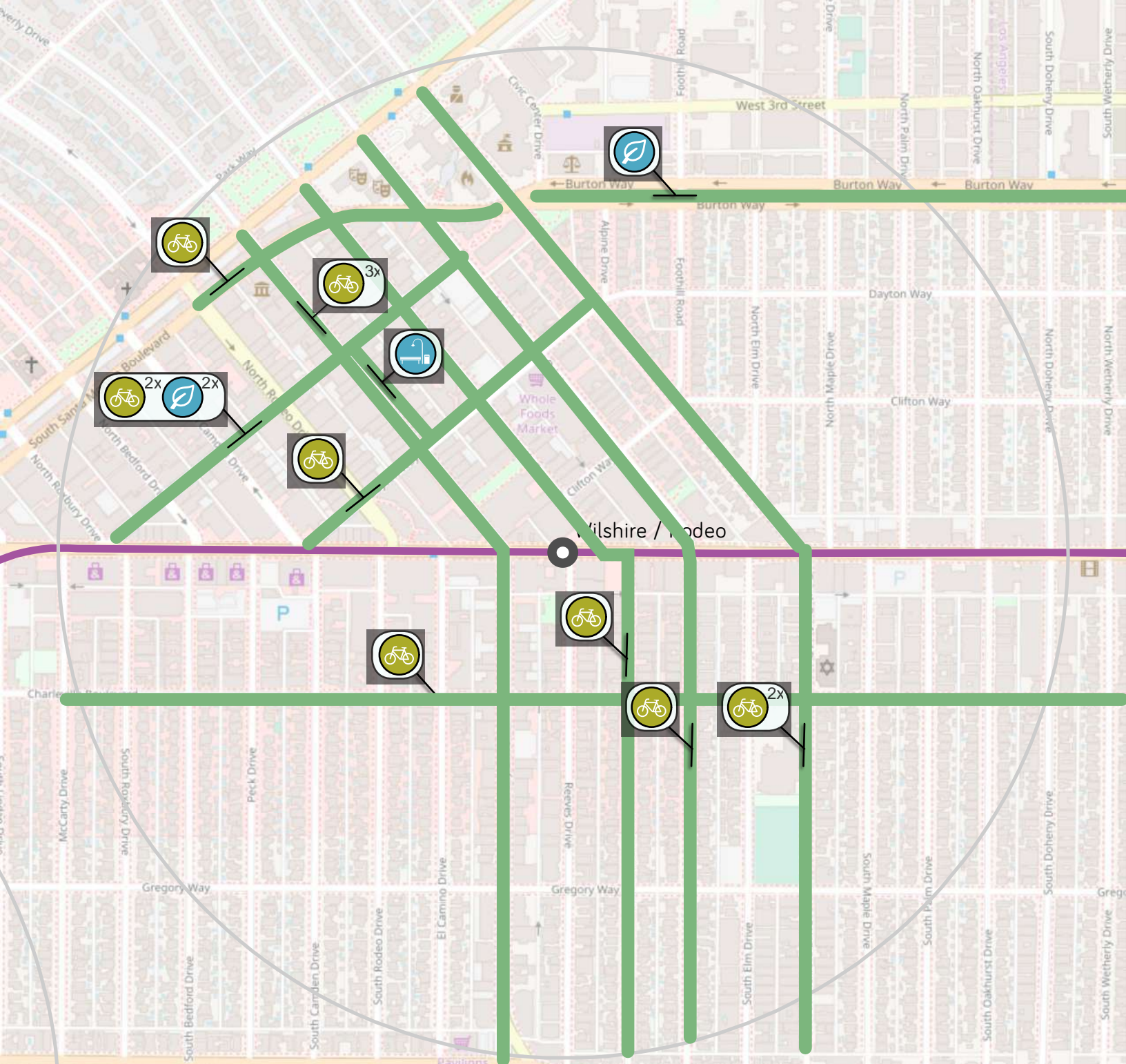


WILSHIRE/RODEO POP UP SUMMARY Pop Up Date: 06.02.19



Proposed Bicycle Friendly Intersection Spot Improvements

- 1
- 2

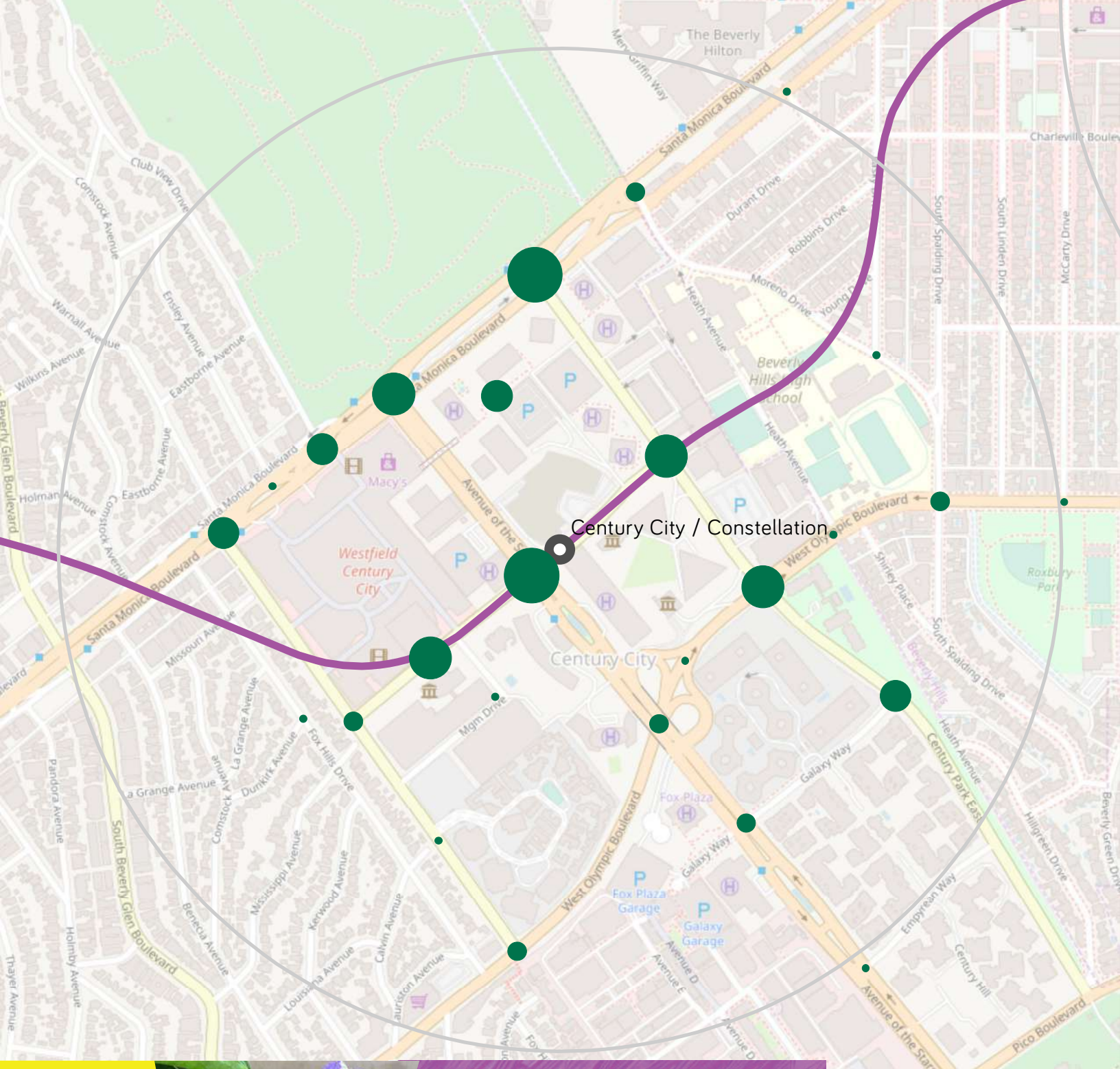


WILSHIRE/RODEO POP UP SUMMARY *Pop Up Date: 06.02.19*

Beverly Hills Farmers' Market

Proposed Corridor Improvements

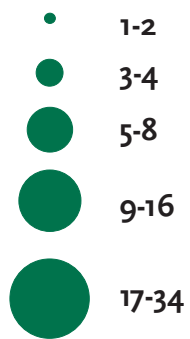
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersector



CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19

Century City Farmers' Market

Proposed Spot Improvements by Intersection



Top 5 Intersections:

- Avenue of the Stars & Constellation Blvd (34)
- Santa Monica Blvd & Century Park East (23)
- Century Park East & Constellation Blvd (16)

192 Total Proposed Improvements

167 Total Spot Improvements

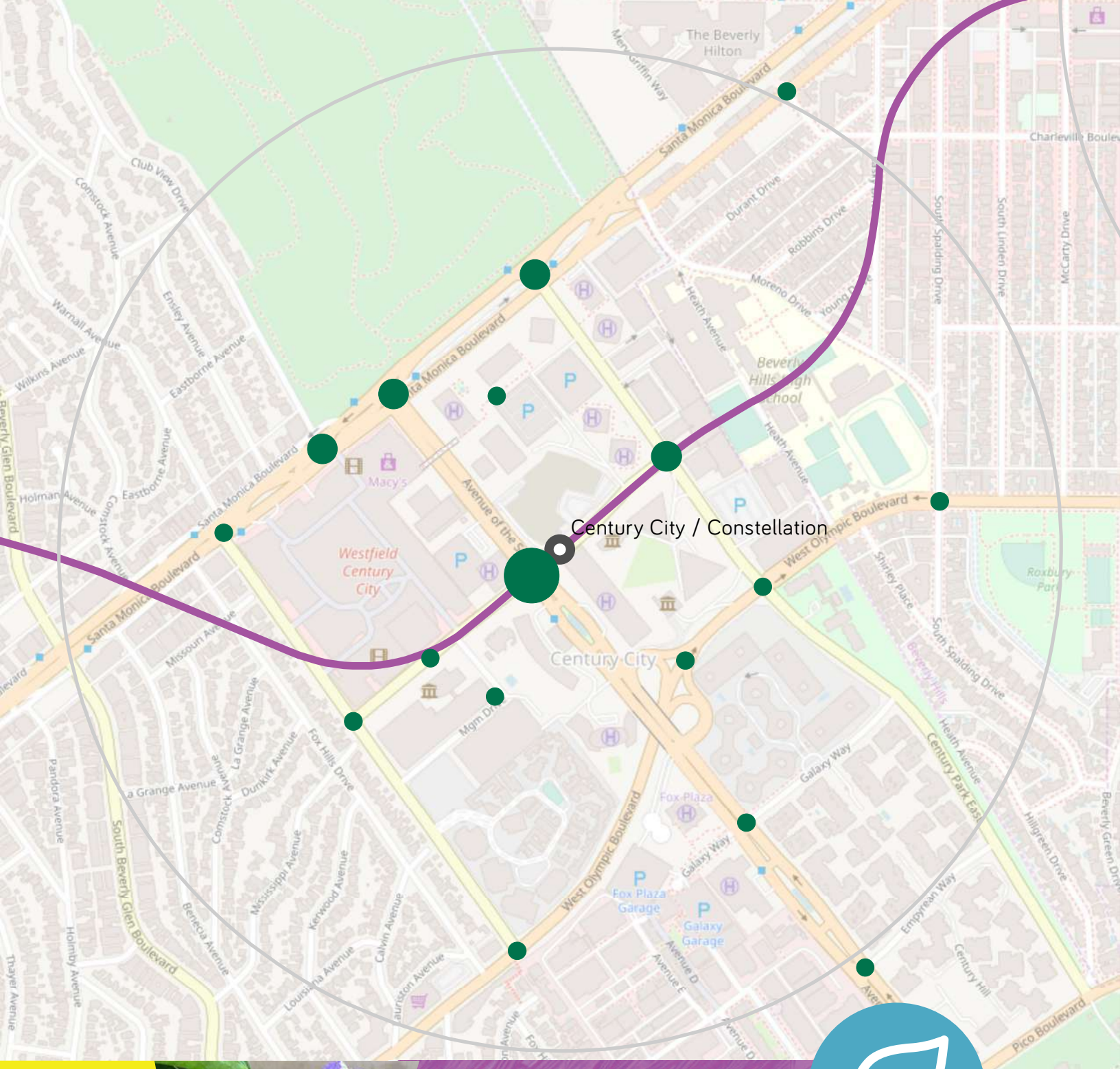
Landscaping & Shade (37)

Bike Facilities (21)

Bike Friendly Intersections (20)

(Top 3)

25 Total Corridor Improvements







Century City / Constellation

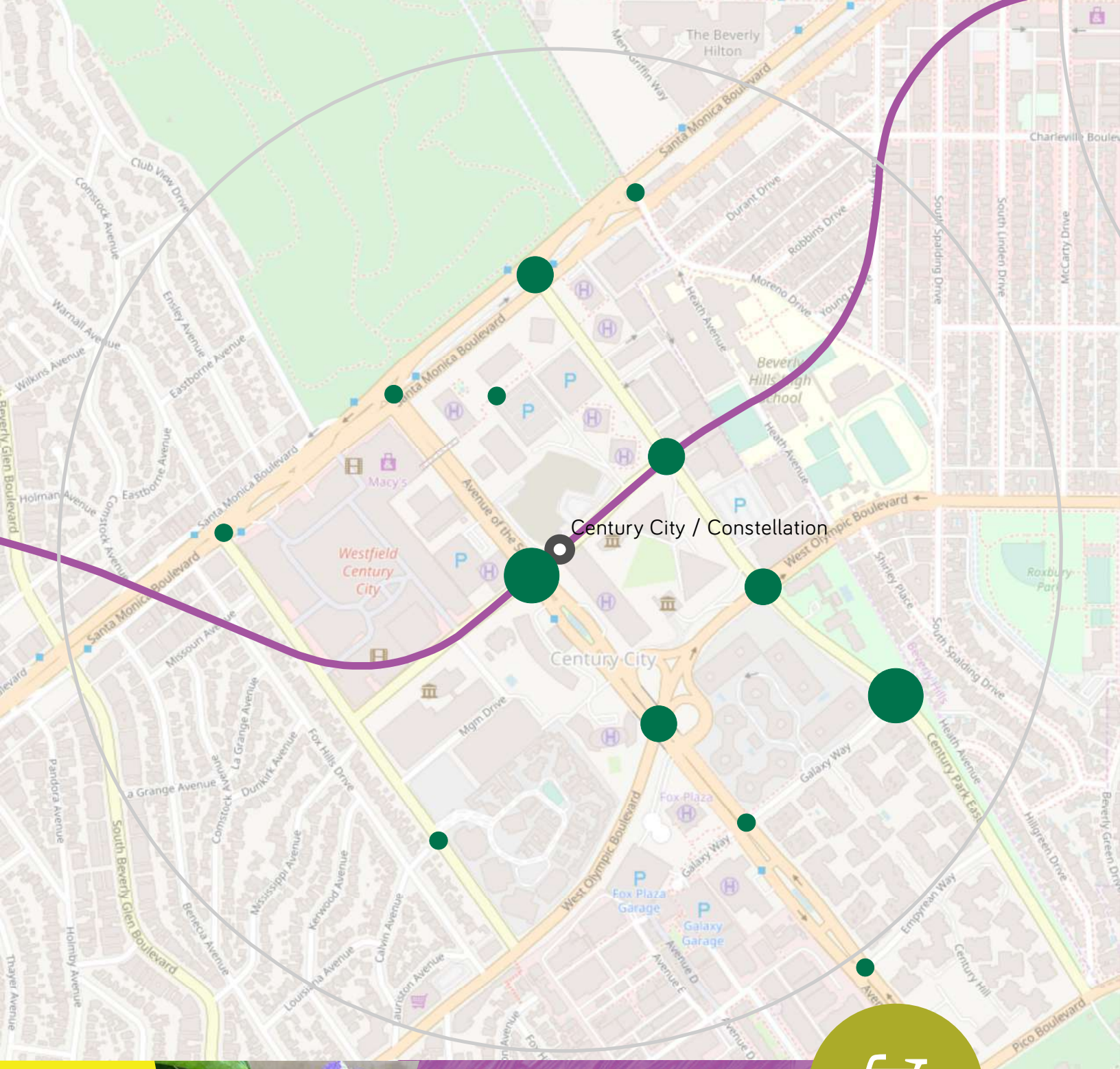
Century City

CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19



Proposed Landscaping & Shade Spot Improvements




-  1-2
-  3-4
-  5-6
-  7-9

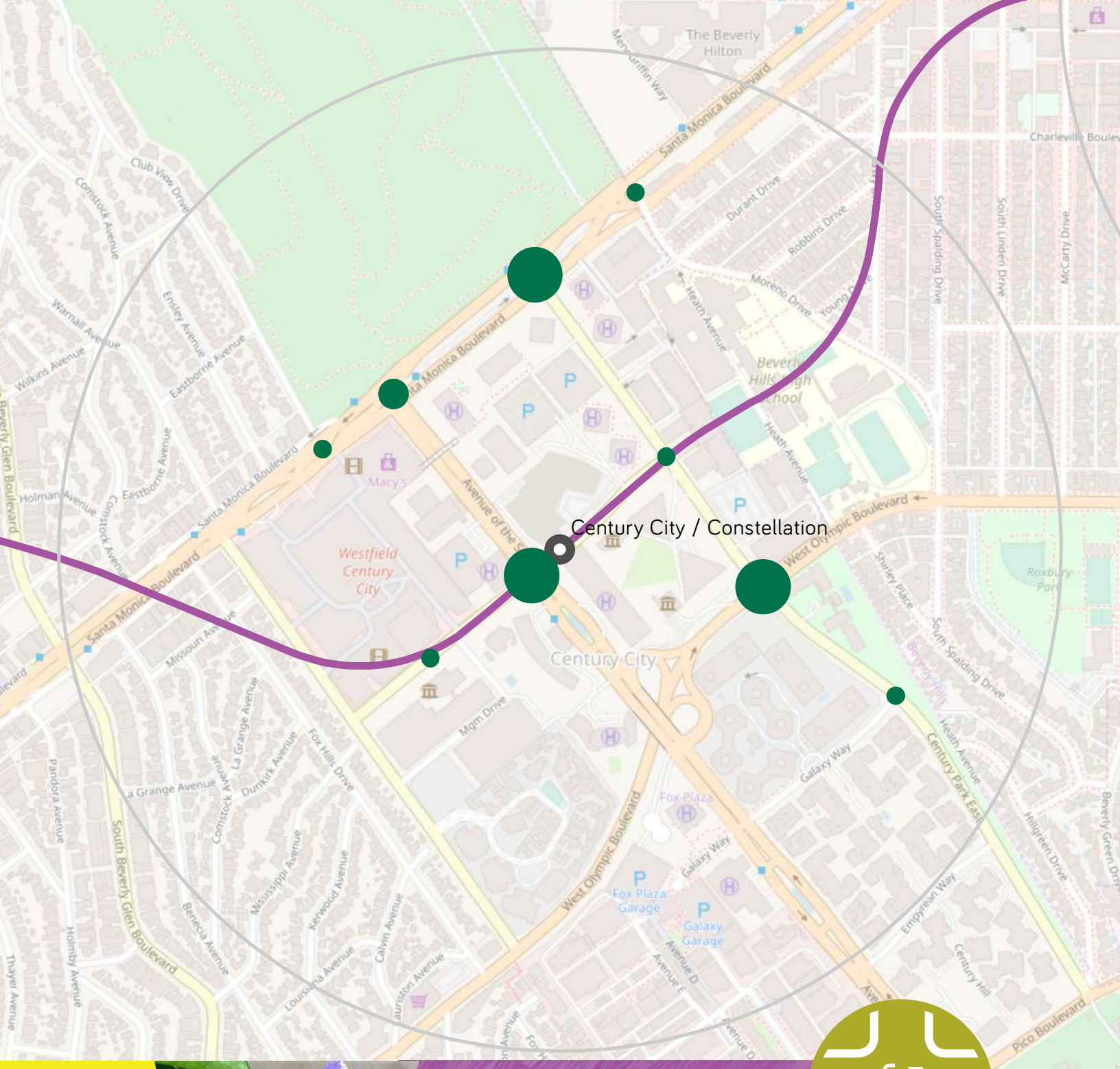


CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19



Proposed Bike Facility Spot Improvements





-  1
-  2
-  3

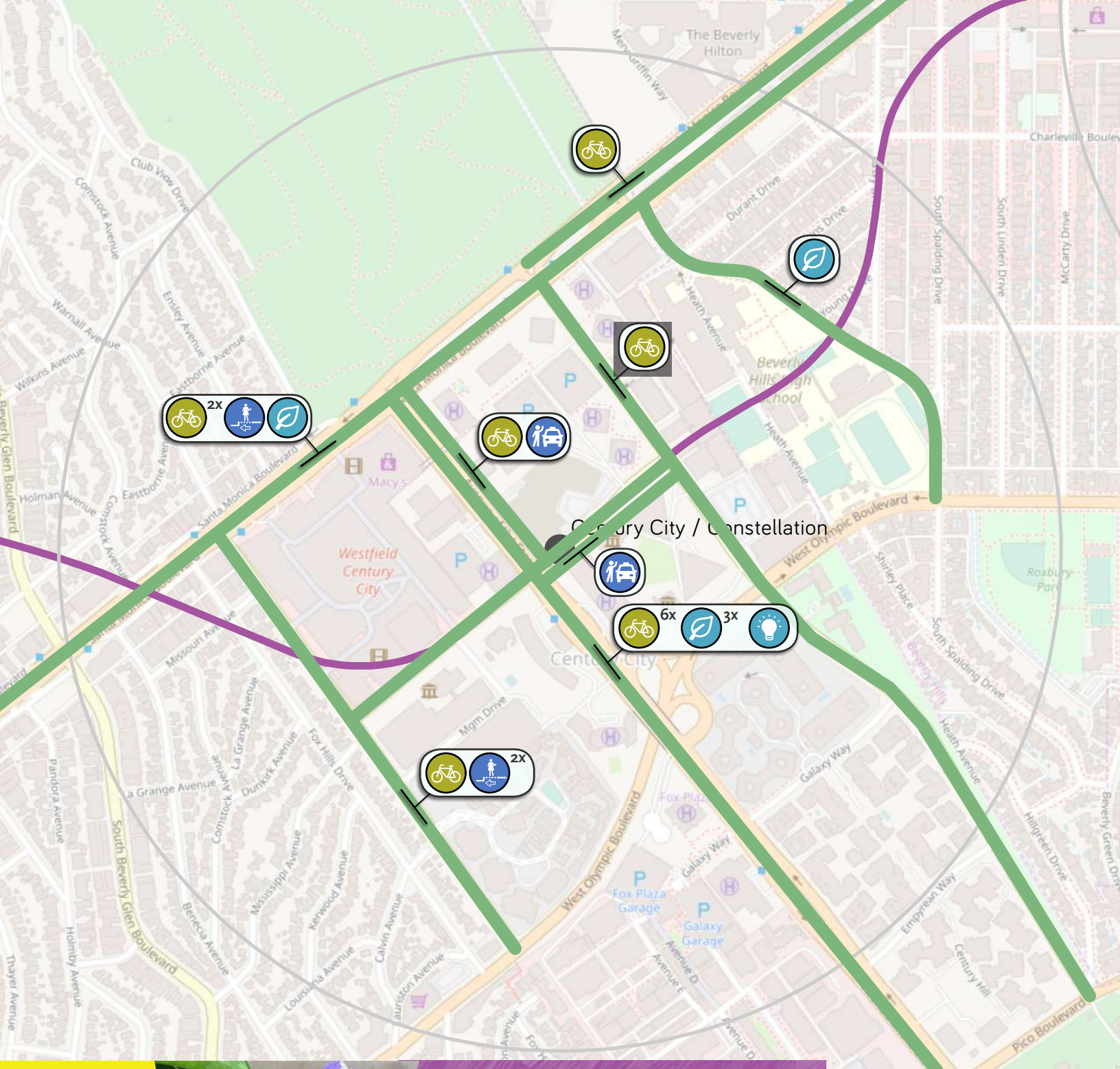


CENTURY CITY/CONSTELLATION POP UP SUMMARY *Pop Up Date: 06.13.19*



Proposed Bicycle Friendly Intersection Spot Improvements

-  1
-  2
-  3
-  4-5

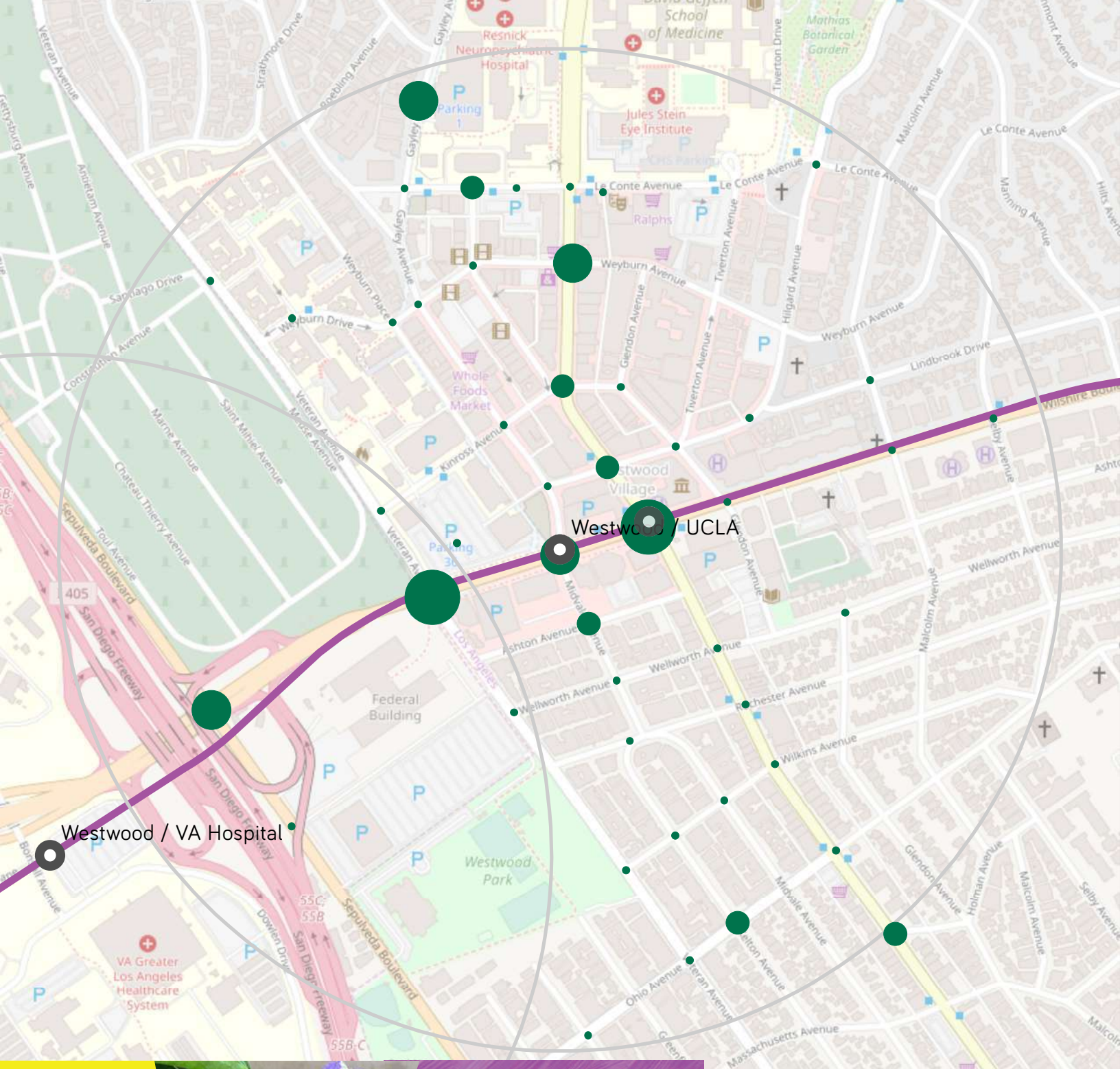


CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19

Century City Farmers' Market

Proposed Corridor Improvements

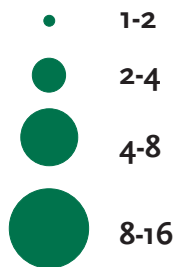
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 05.23.19

UCLA Semel Healthy Campus Initiative Center 2019 Celebration

Proposed Spot Improvements by Intersection



Top 3 Intersections:

- Wilshire Blvd & Westwood Blvd (16)
- Wilshire Blvd & Veteran Ave (10)
- Wilshire Blvd & Gayley Ave (8)

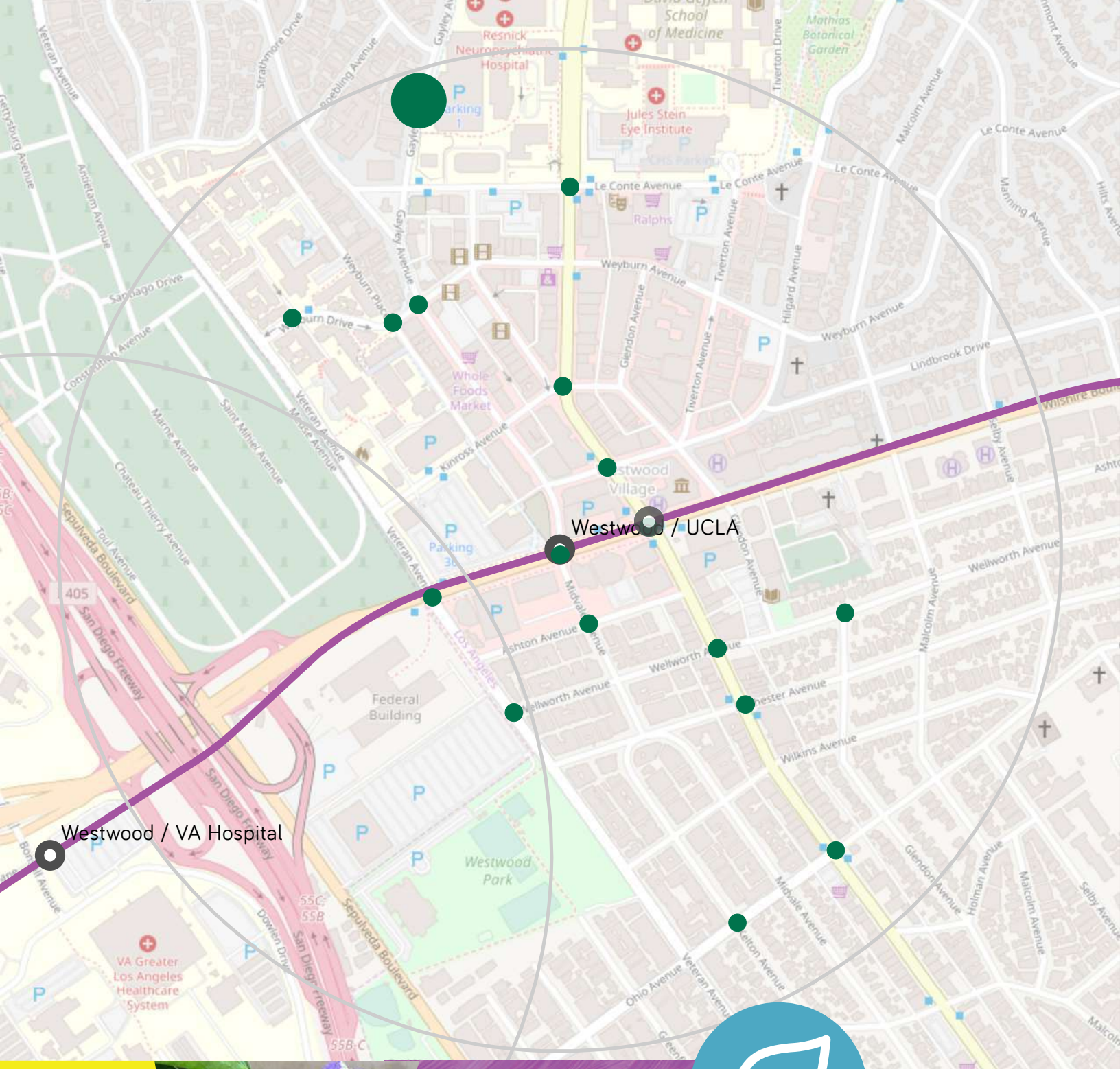
131 Total Proposed Improvements

116 Total Spot Improvements

- Landscape (18)
- Crosswalks (16)
- Ped & Bike Lighting (14)

(Top 3)

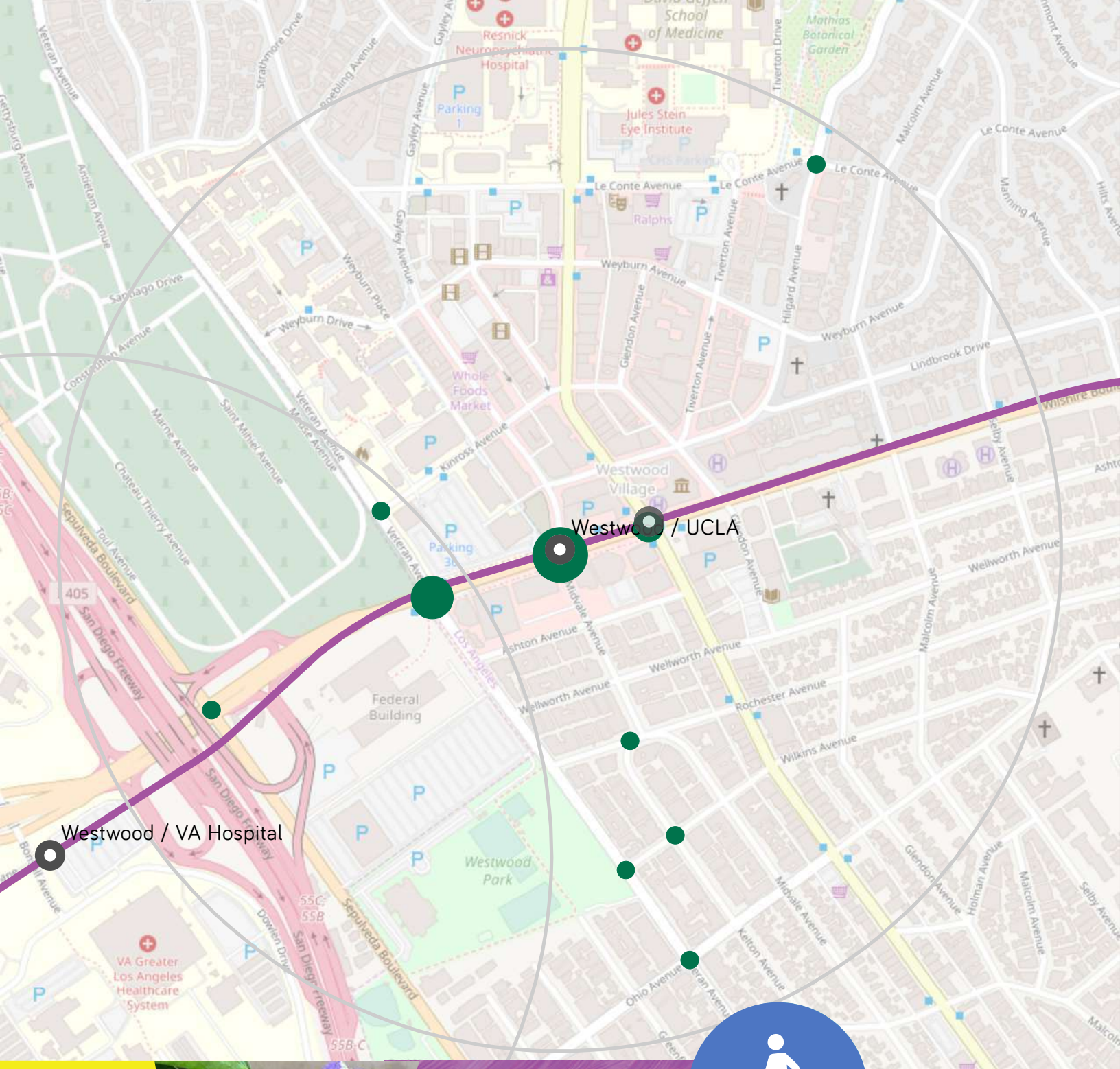
15 Total Corridor Improvements



WESTWOOD / UCLA POP UP SUMMARY *Pop Up Date: 05.23.19*

Proposed Landscaping & Shade Spot Improvements

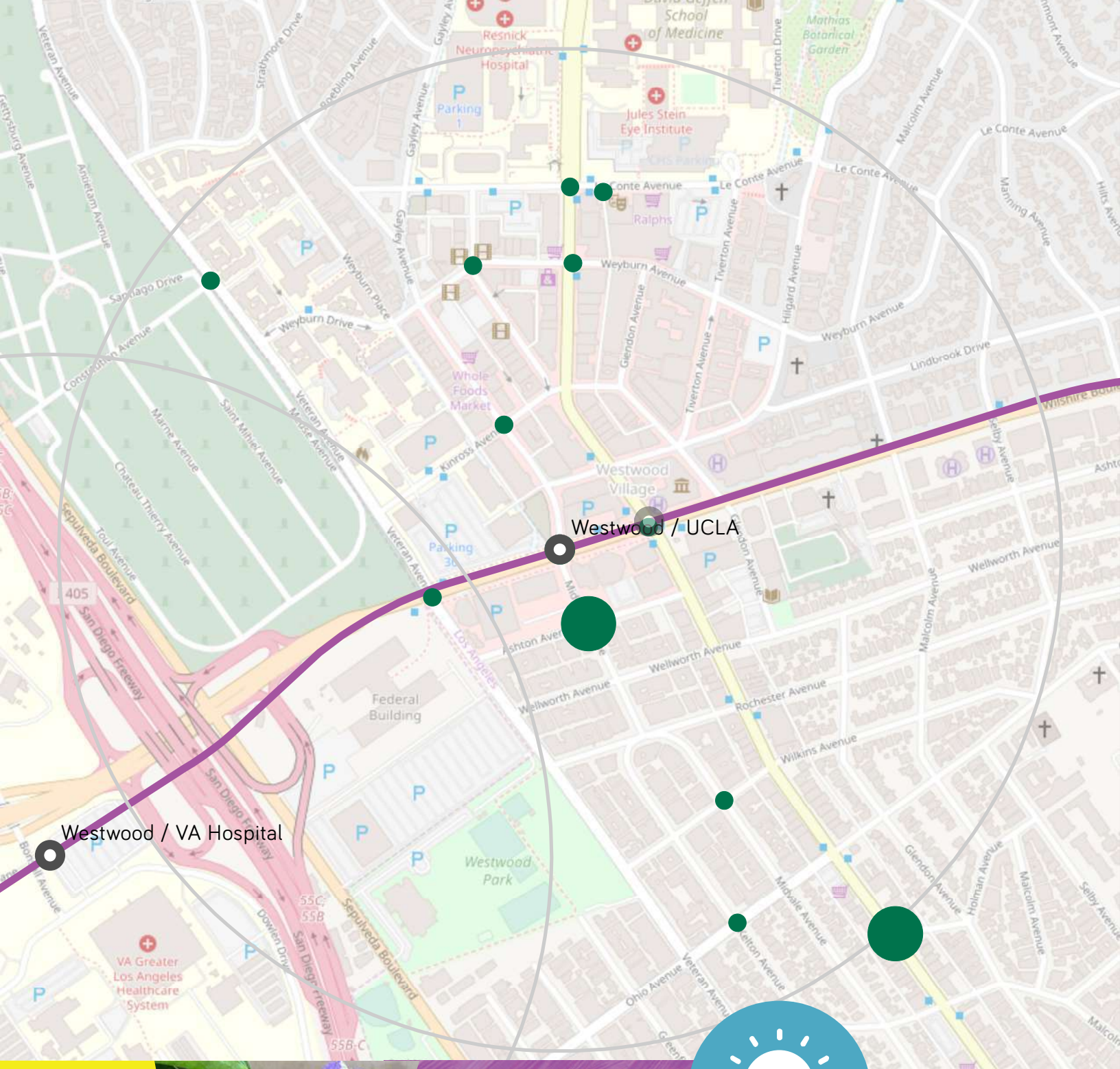
- 1
- 2



WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 05.23.19

Proposed Crosswalk Spot Improvements

- 1
- 2
- 3
- 4

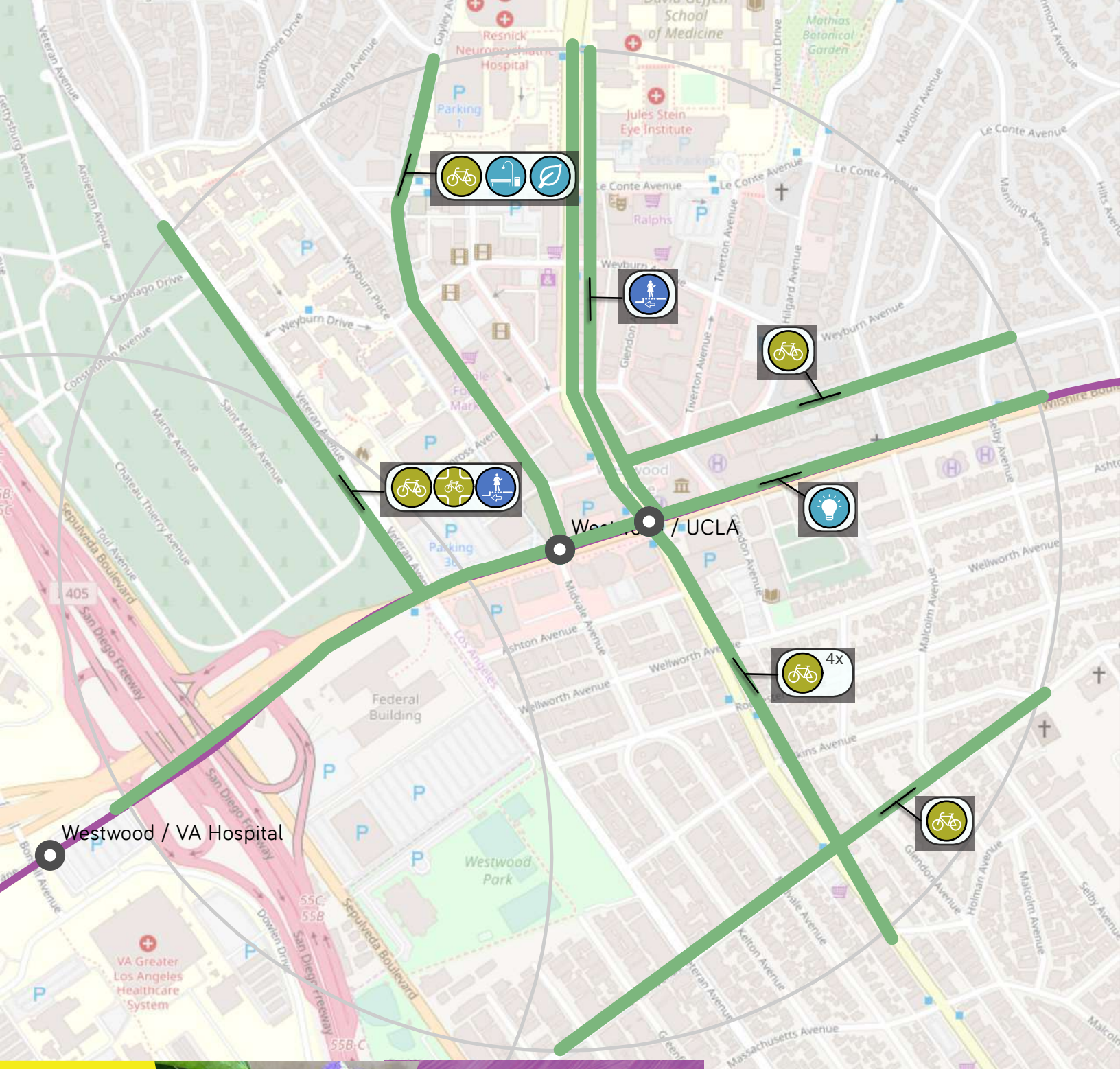


WESTWOOD / UCLA POP UP SUMMARY *Pop Up Date: 05.23.19*



Proposed Ped & Bike Lighting Spot Improvements

- 1
- 2

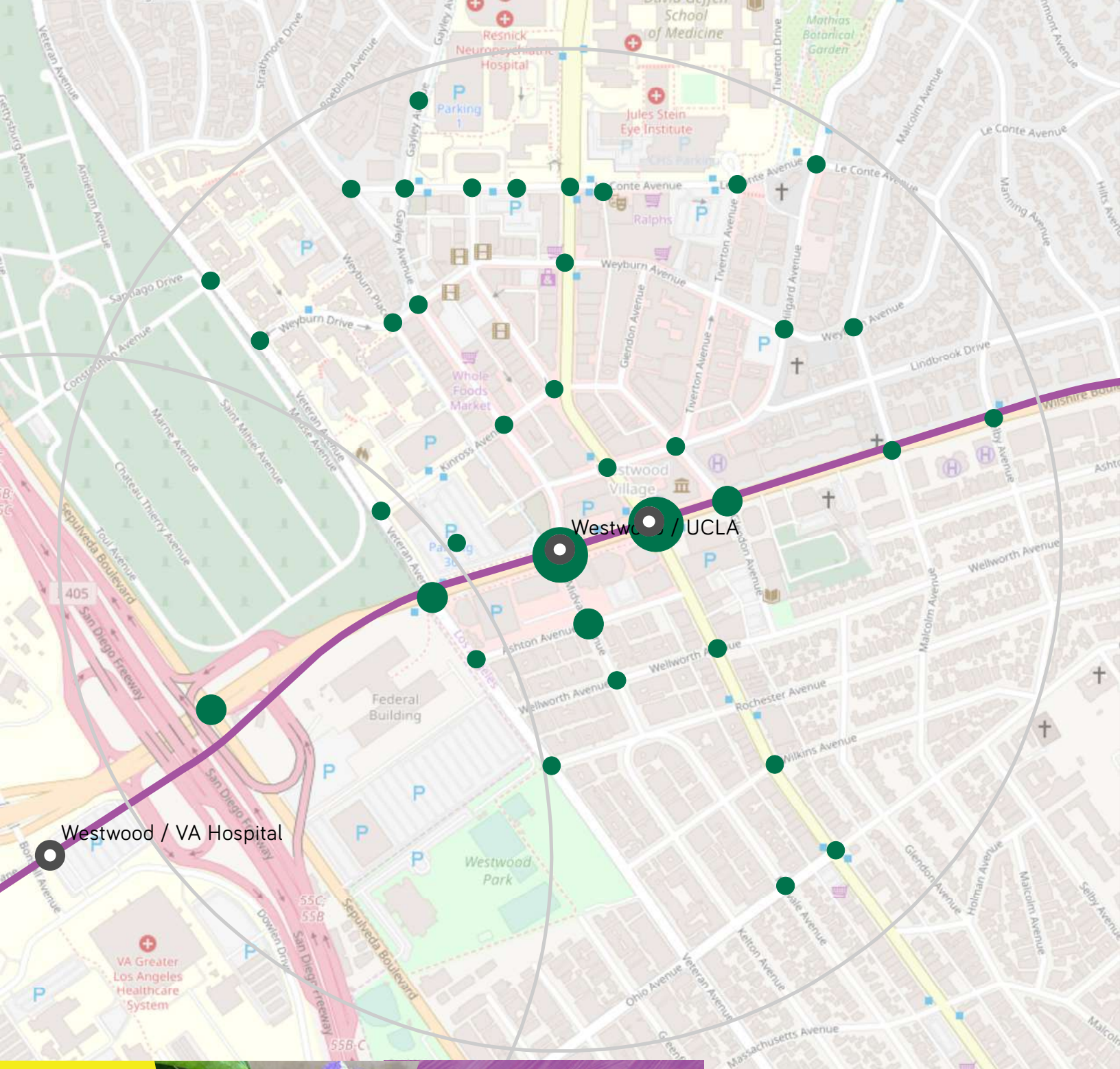


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 05.23.19

UCLA Semel Healthy Campus Initiative Center 2019 Celebration

Proposed Corridor Improvements

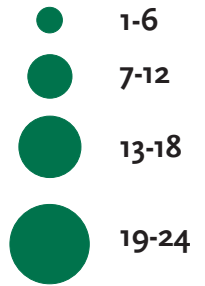
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Shade
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Improvements
- Bicycle Facility
- Bicycle Friendly Intersector



WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19

Westwood Village Farmers' Market

Proposed Spot Improvements by Intersection



- Top 3 Intersections:**
- Wilshire Blvd & Gayley Ave (24)
 - Wilshire Blvd & Westwood Blvd (23)
 - Wilshire Blvd & Veteran Ave (10)

160 Total Proposed Improvements

143 Total Spot Improvements

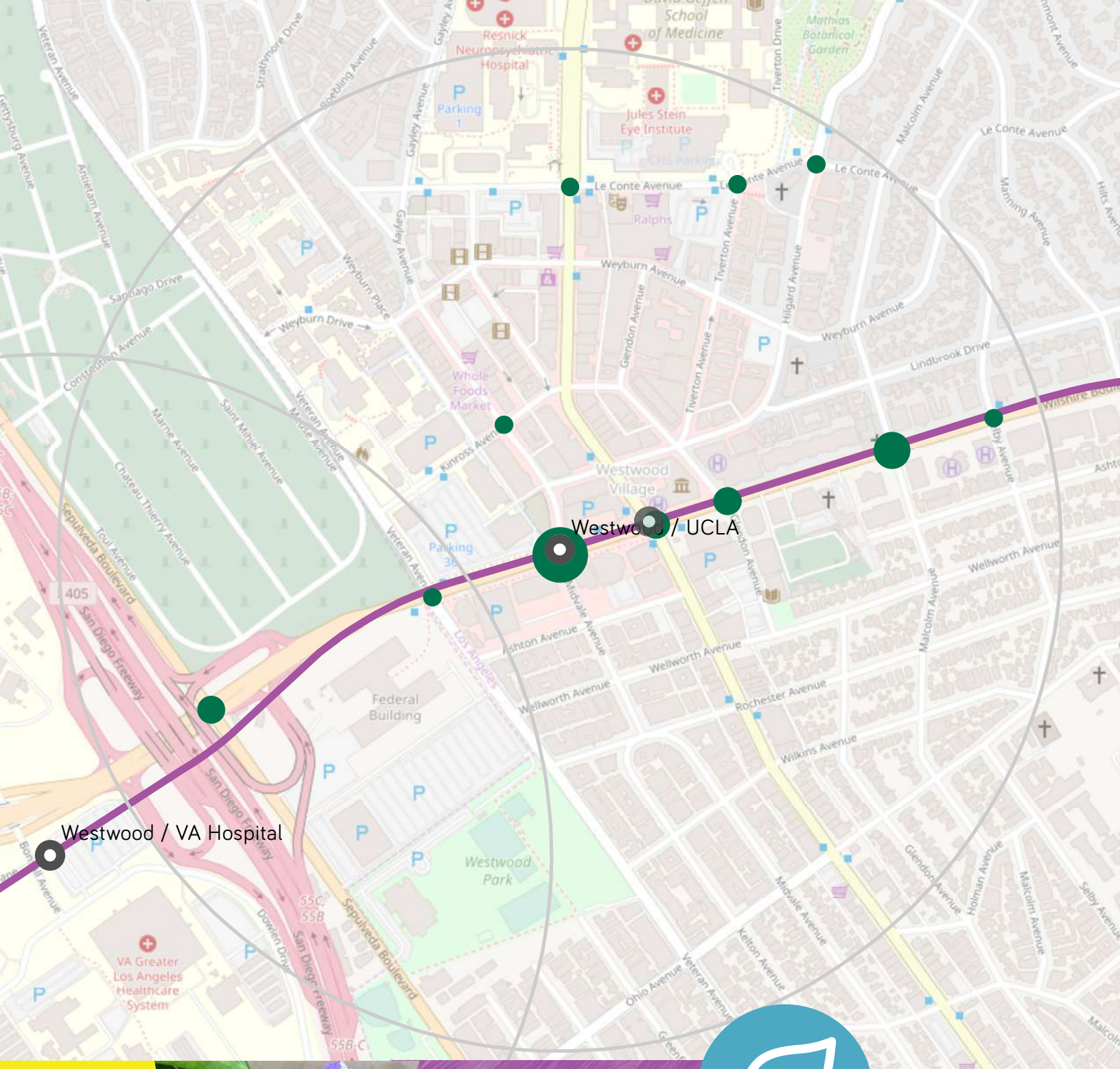
Landscaping & Shade (20)

Crosswalks (19)

Drop off/Pick up/Ride Share (18)

(Top 3)

17 Total Corridor Improvements

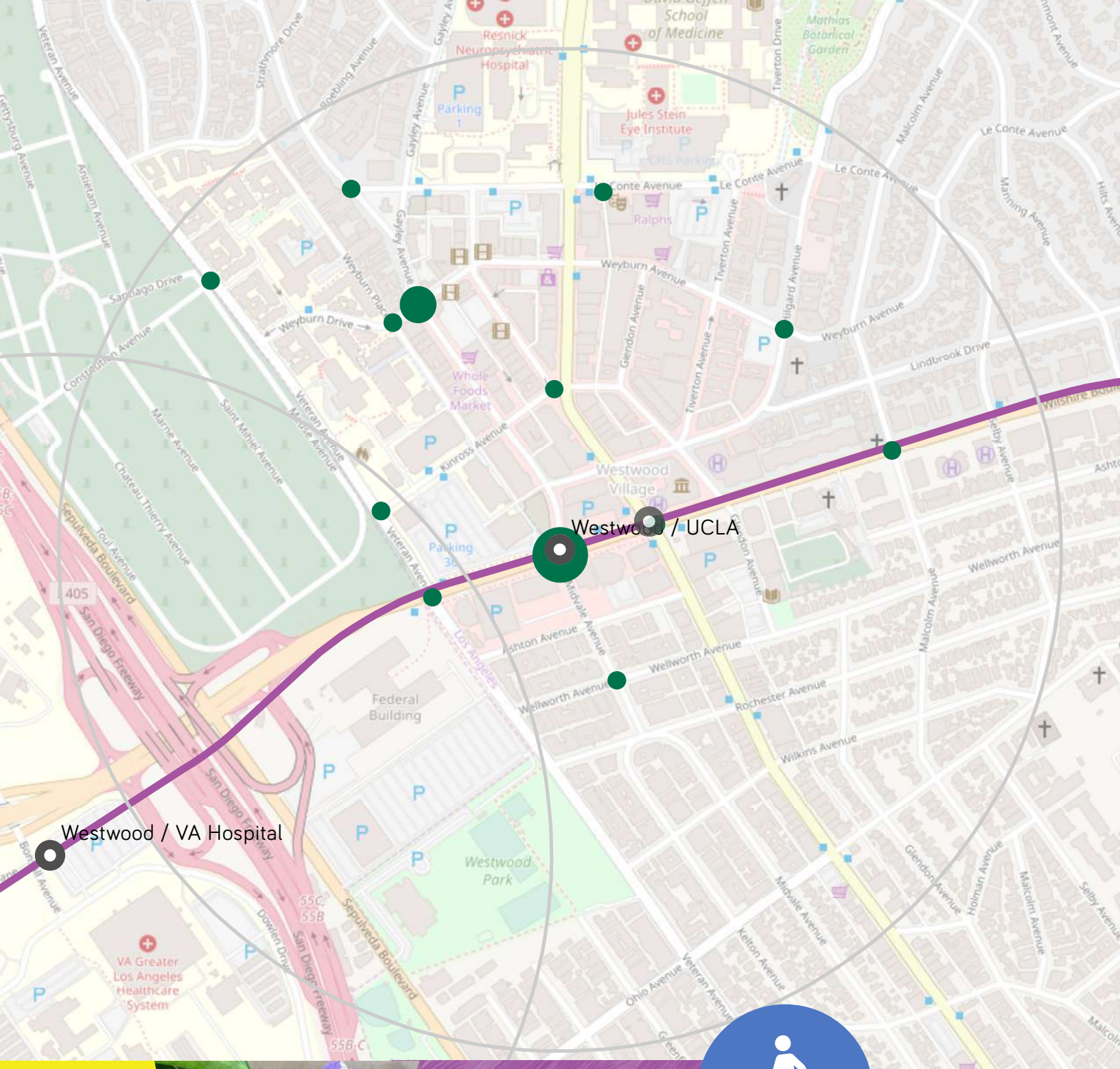


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Landscaping & Shade Spot Improvements

- 1
- 2
- 3
- 4-5

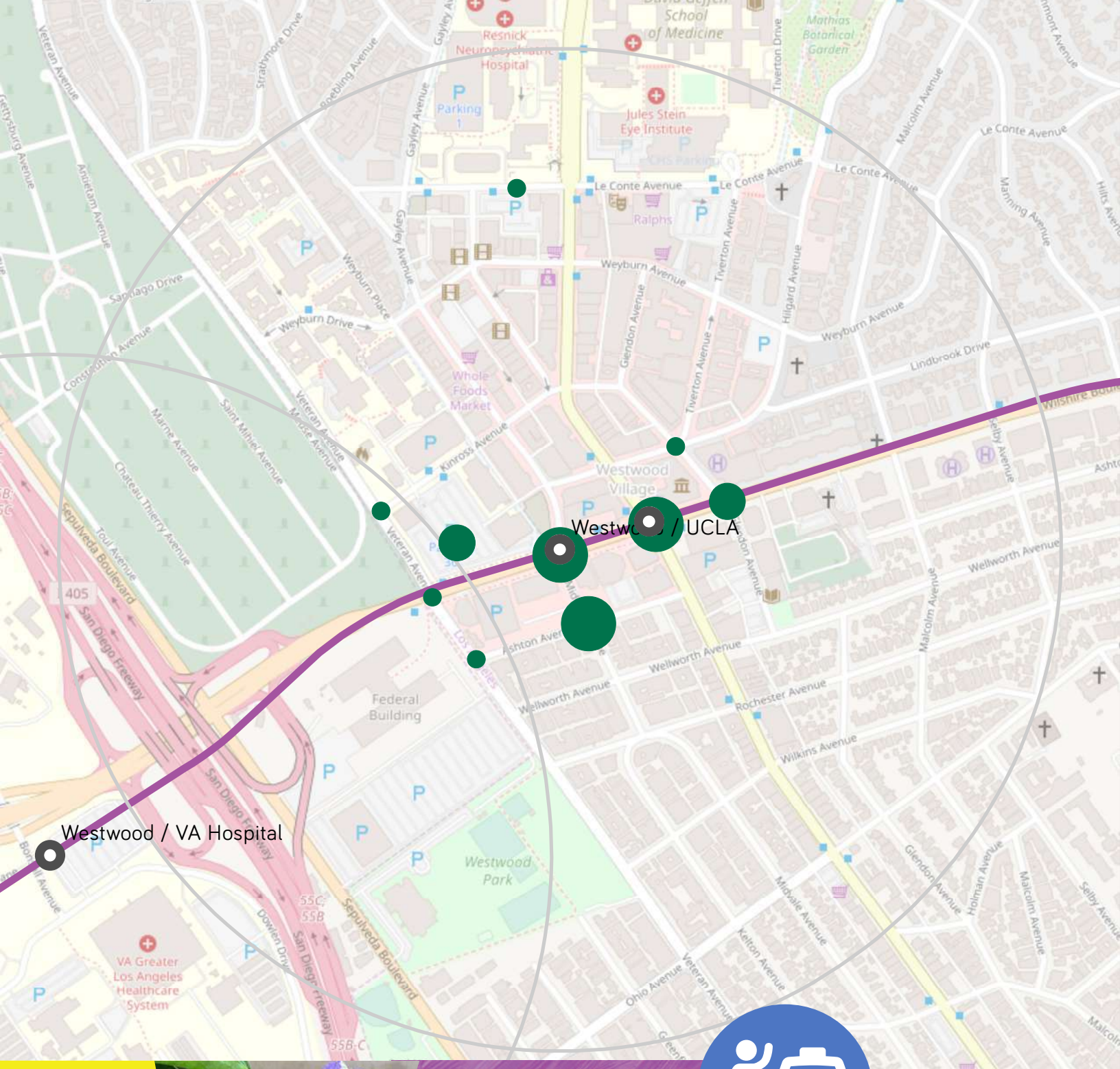


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Crosswalk Spot Improvements

- 1
- 2-3
- 4-5



Westwood / VA Hospital

Westwood / UCLA

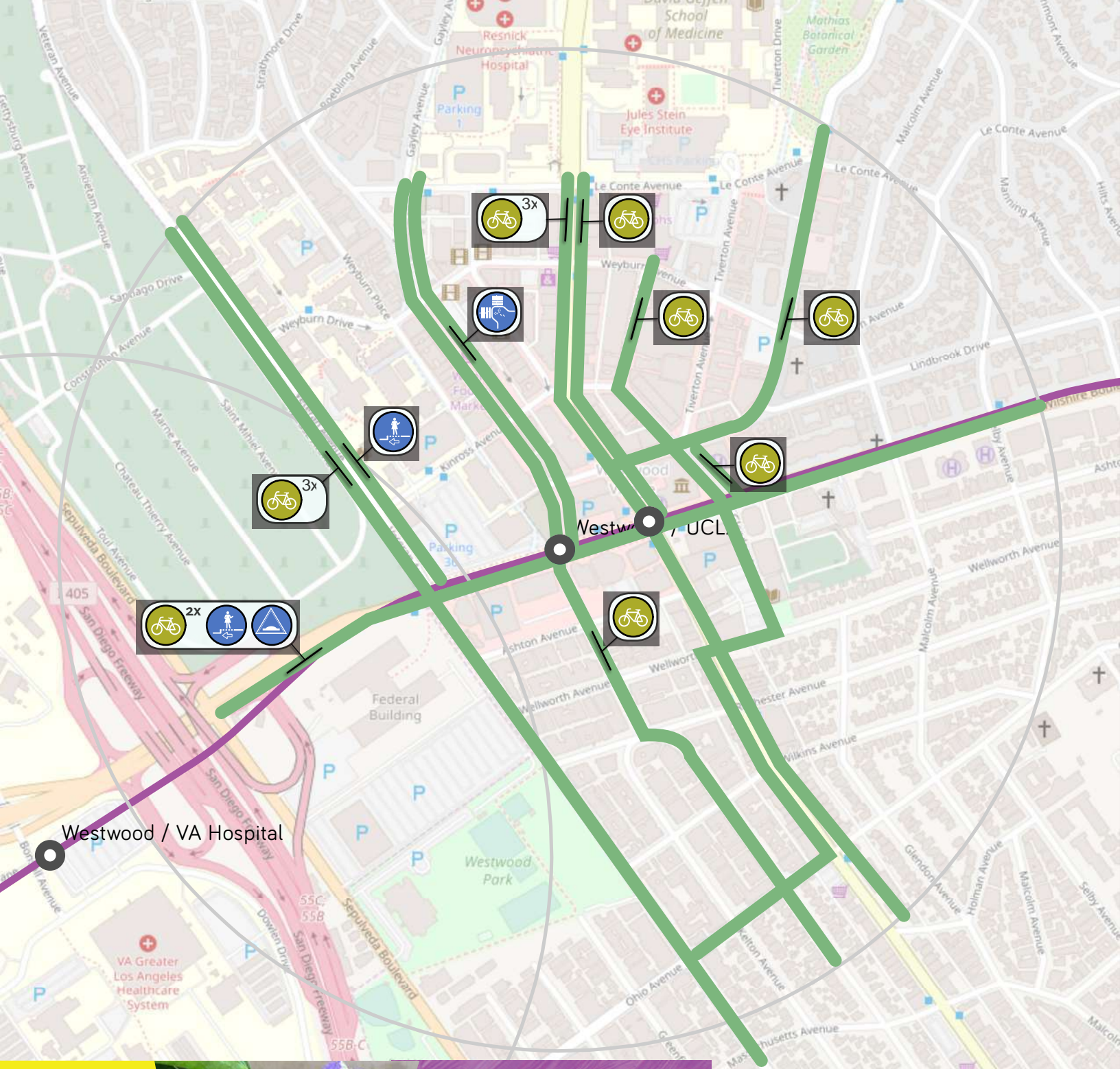


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Drop off / Pick up / Ride Share Spot Improvements

- 1
- 2
- 3

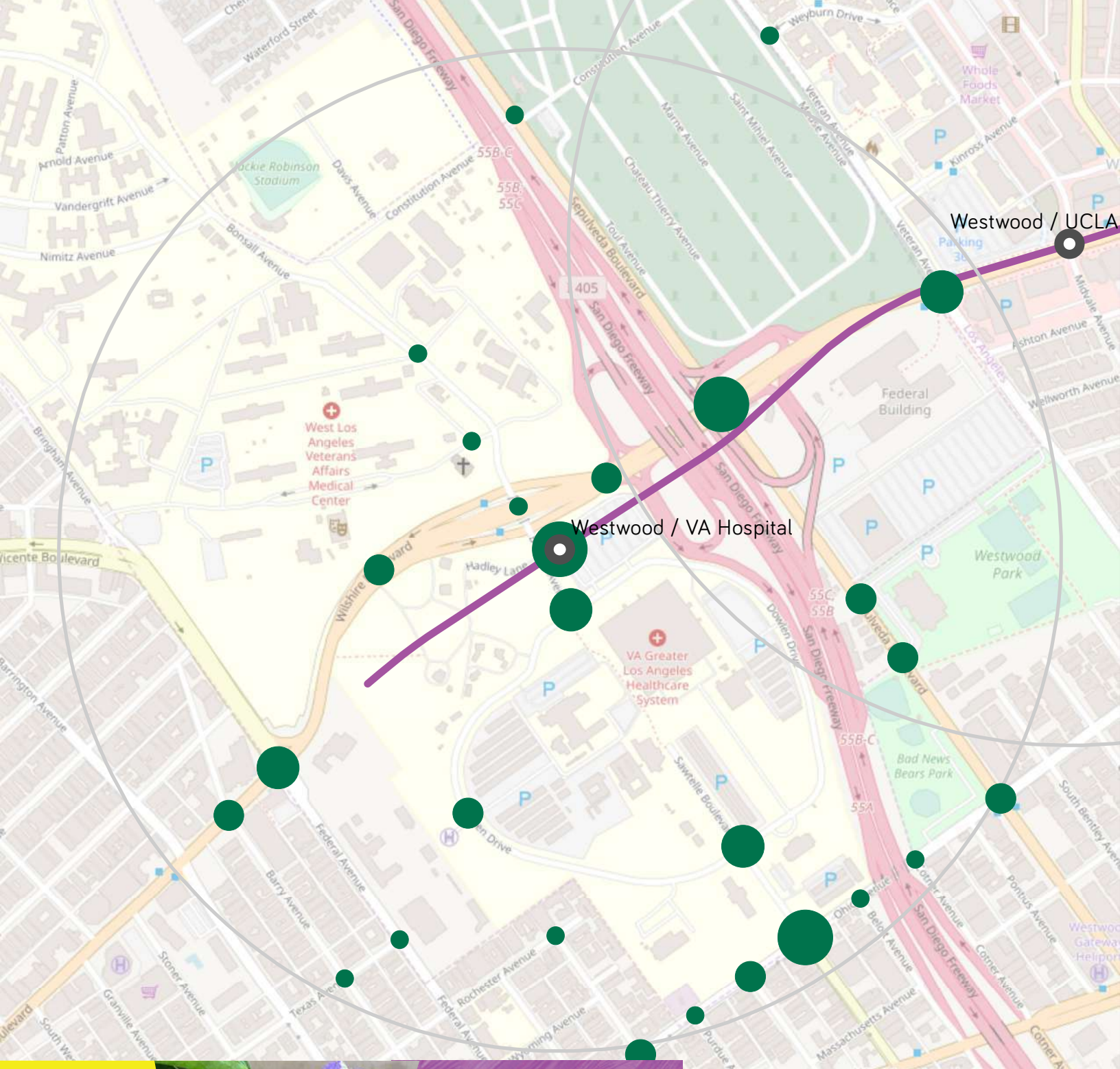


WESTWOOD / UCLA POP UP SUMMARY *Pop Up Date: 06.06.19*

Westwood Village Farmers' Market

Proposed Corridor Improvements

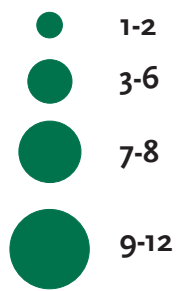
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop O / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19

West LA Farmers' Market

Proposed Spot Improvements by Intersection

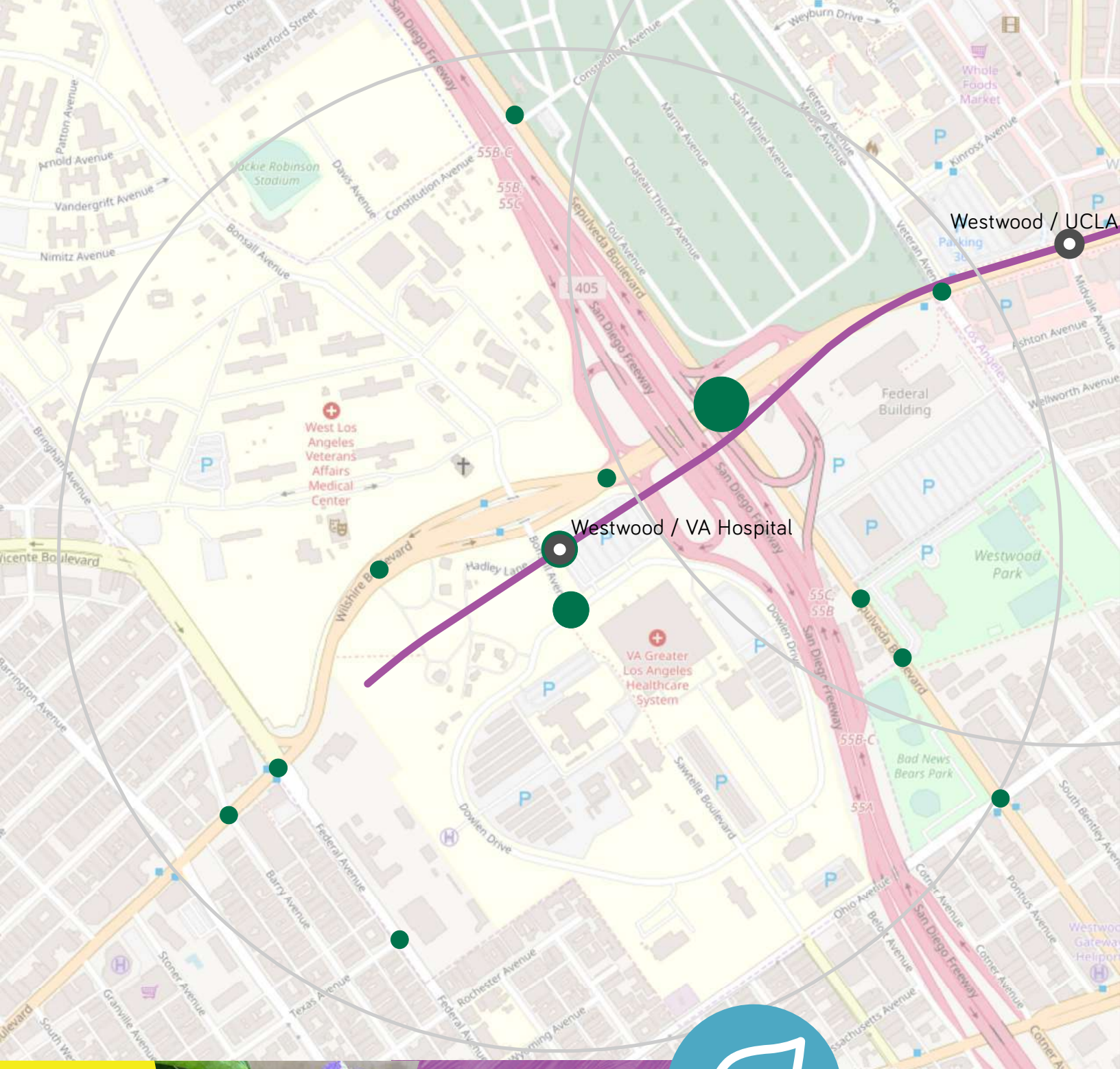


- Top 3 Intersections:**
- Wilshire Blvd & Sepulveda Blvd (12)
 - Ohio Ave & Sawtelle Blvd (12)
 - Station Location (11)

124 Total Proposed Improvements

- 115 Total Spot Improvements
 - Landscaping & Shade (17)
 - Traffic Calming (16)
 - Wayfinding (11)
- 9 Total Corridor Improvements




(Top 3)

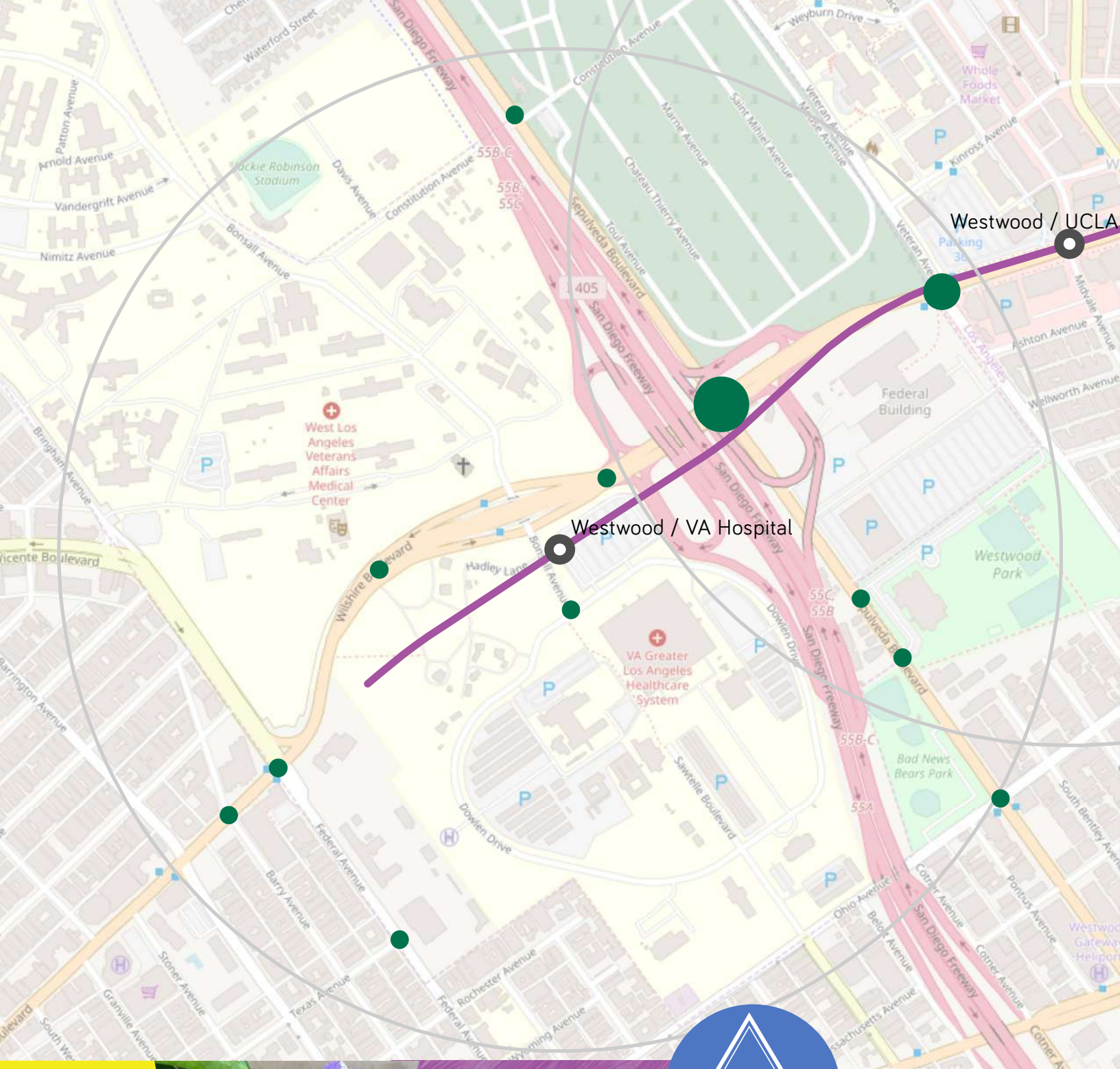


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19



Proposed Landscaping & Shade Spot Improvements

-  1
-  2
-  3

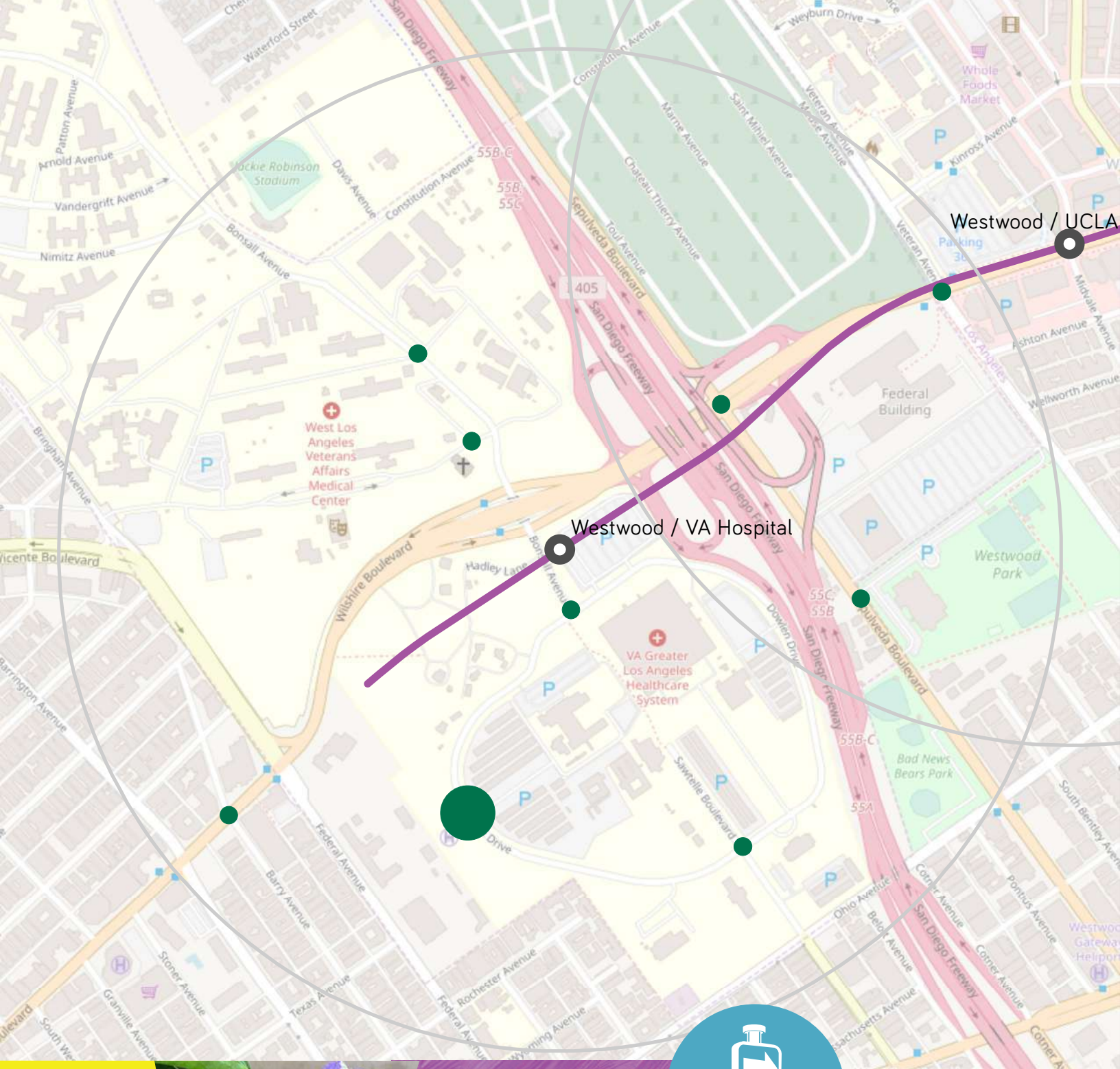


WESTWOOD / VA POP UP SUMMARY *Pop Up Date: 06.09.19*



Proposed Traffic Calming Spot Improvements

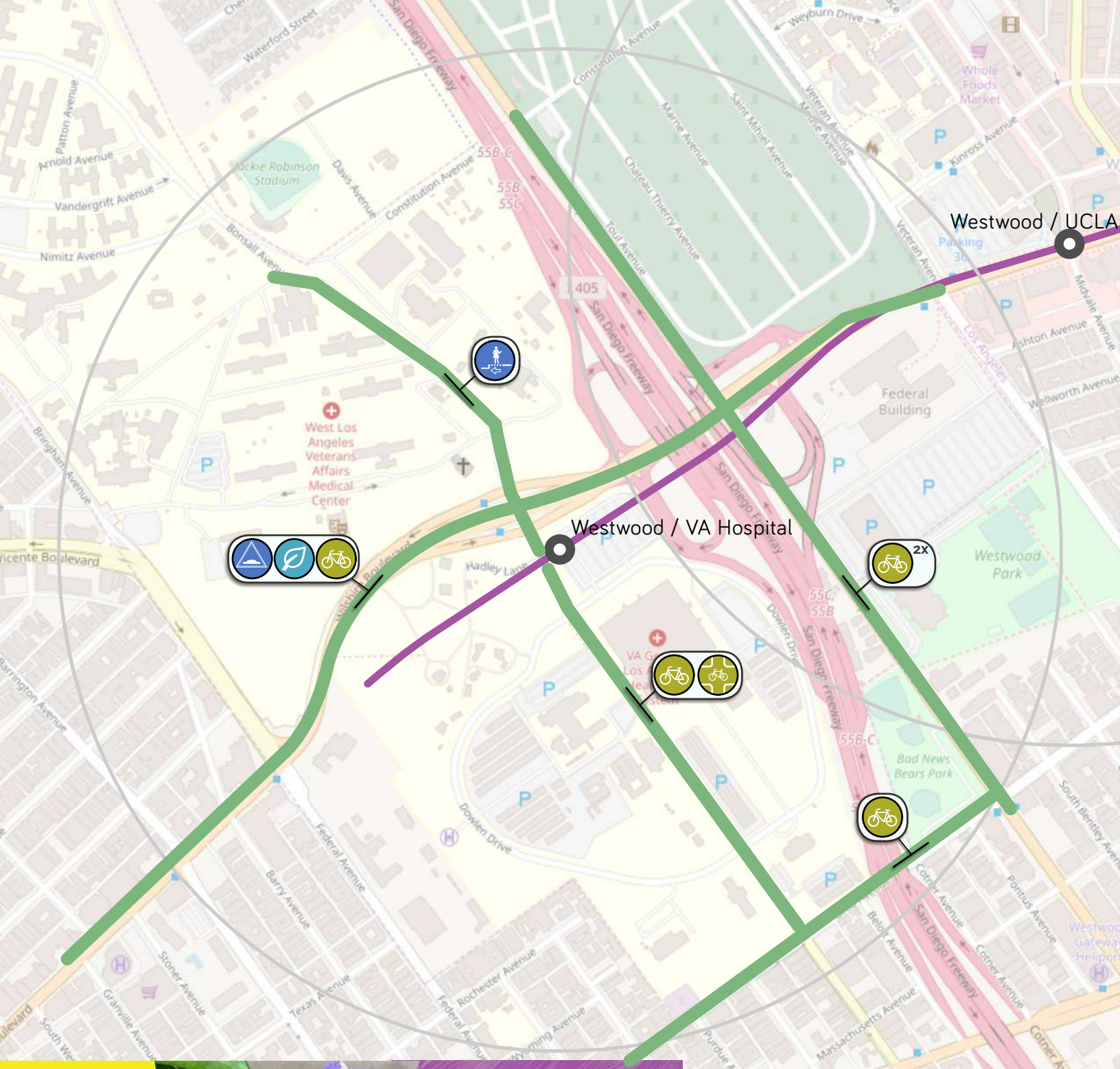
- 1
- 2
- 3



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19

Proposed Wayfinding Spot Improvements

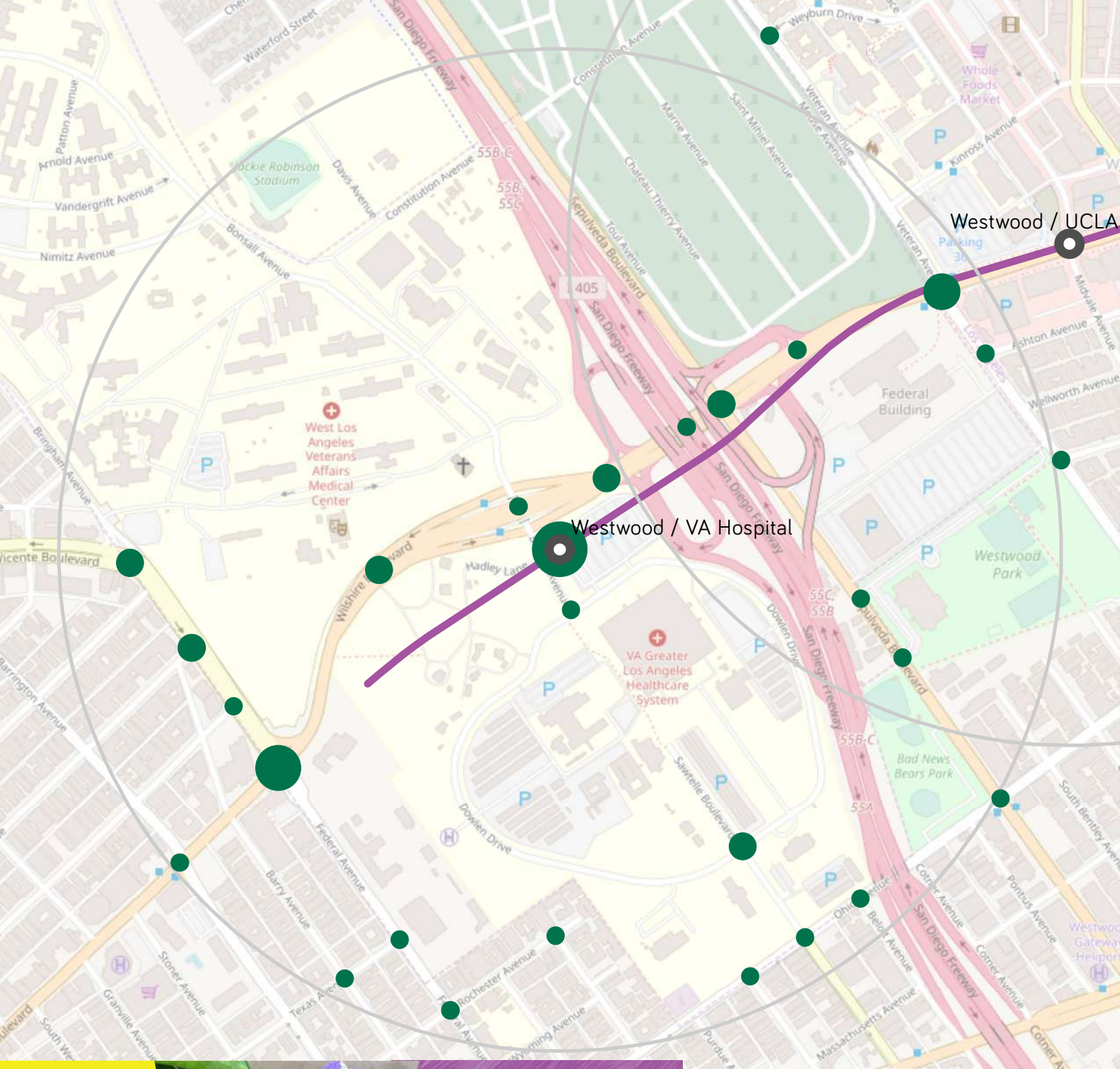
- 1
- 3



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19 **West LA Farmers' Market**

Proposed Corridor Improvements

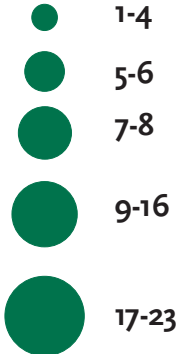
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19

Brentwood Farmers' Market

Proposed Spot Improvements by Intersection



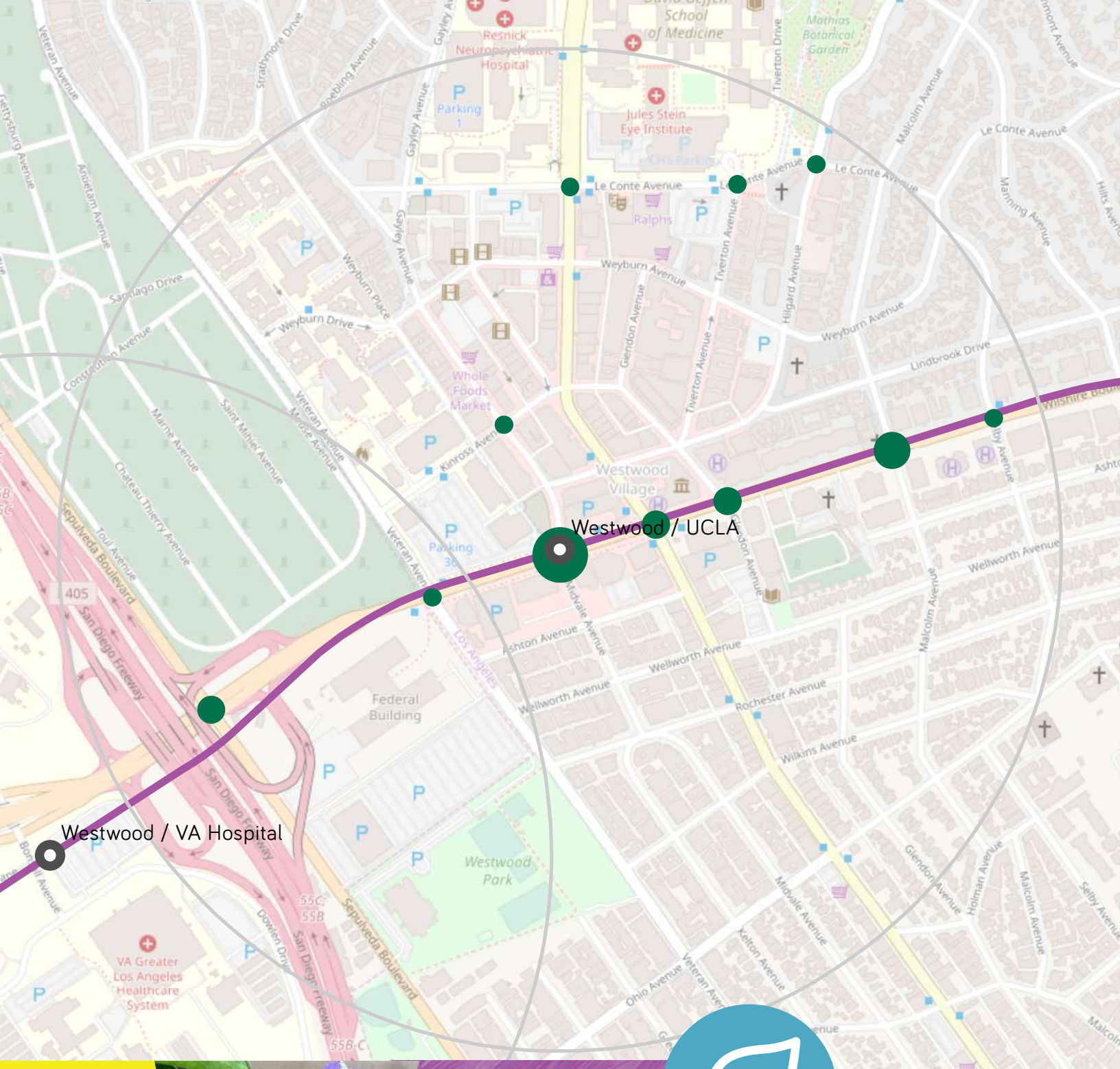
- Top 3 Intersections:**
- Station Location (23)
 - Federal Ave & San Vicente Blvd (14)
 - Wilshire Blvd & Veteran Ave (7)

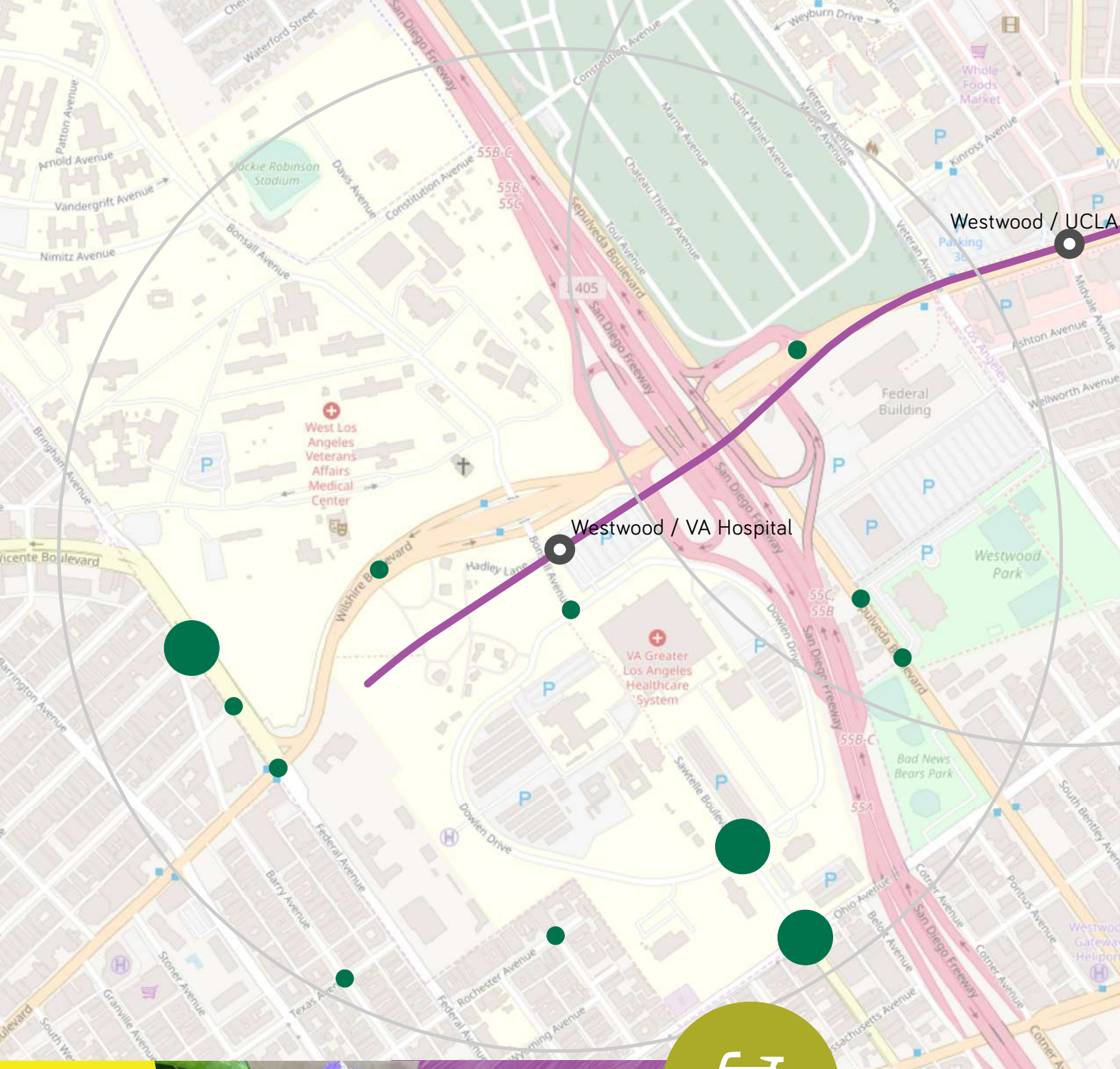
158 Total Proposed Improvements

- 121 Total Spot Improvements
- Landscaping & Shade (19)
 - Bike Facilities (16)
 - Traffic Calming (12)



37 Total Corridor Improvements



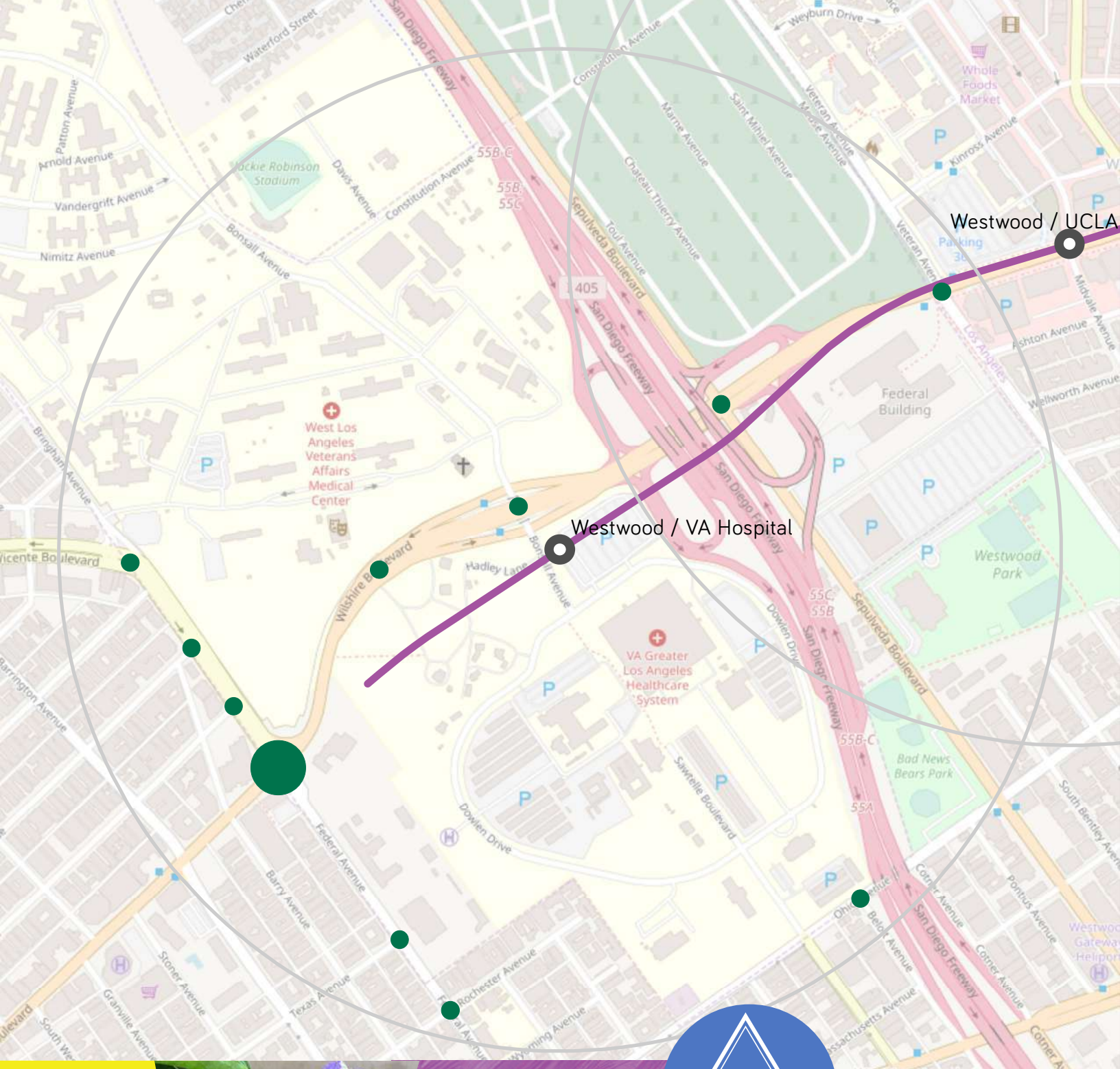


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19



Proposed Bike Facilities Spot Improvements

- 1
- 2

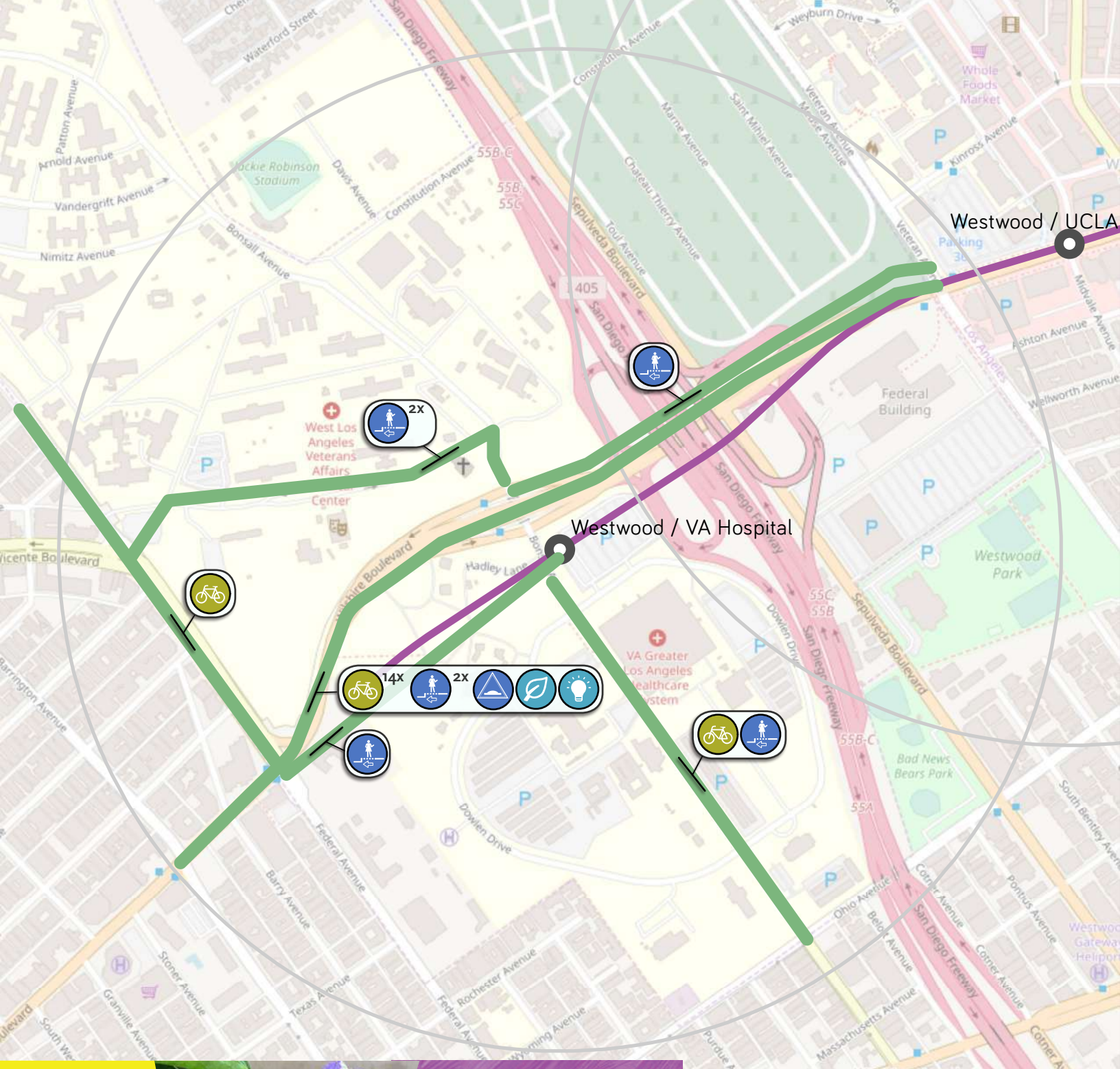


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19



Proposed Traffic Calming Spot Improvements

- 1
- 2



6. Metro Outreach Summary

6.1. Metro Outreach Presentations

Presentations were made by Metro staff to the:

- Beverly Hills Traffic and Parking Commission (July 11, 2019)
- North Westwood Neighborhood Council (April 23, 2019 and November 6, 2019)
- Westwood Village Improvement Association (July 18, 2019)
- Westwood Neighborhood Council (September 11, 2019)

In these presentations, Metro provided an overview of its first/last mile approach, the Pathway Maps, and potential Plan ideas.

In response to community interest in the Westwood/ UCLA station area, Metro also met with local community members in January 2020. This meeting led to a special comment opportunity: an email survey was issued in February 2020 to collect written comments on the draft First/Last Mile Plan for the Westwood/UCLA station.

6.2. Metro Westwood Feedback Survey

To supplement engagement conducted in the Westwood/UCLA station area, Metro offered an additional engagement opportunity focused on FLM improvements proposed in this station area. Metro received 12 survey responses and 45 individual comments to this survey request. Responses were collected via email from the public, with comments pertaining to several FLM projects proposed by Metro. Participants of the survey included a range of individuals from the Westwood area. Participant affiliations included residents from the area, UCLA students, neighborhood and community council members, members of the UCLA bicycle academy, UCLA faculty, and a member from the Westwood Village Improvement Association.

A majority of comments from the survey reflected an interest in the FLM project recommendation for a bicycle facility along Westwood Boulevard. Although some were opposed, several respondents voiced their strong desire for the addition of a protected bike lane to maximize connectivity between the Purple Line station and Westwood Village. Survey participants also identified interest for a dedicated bus lane along this specific corridor, along with the addition of bus islands in an effort to improve pedestrian safety.

The survey responses also identified interest in protected bicycle infrastructure for several other FLM project corridors proposed. Corridors which were identified included Ohio Avenue, Veteran Ave, Gayley Avenue, Hilgard Avenue, Midvale/Kelton Ave, and the Westwood Recreation Center cut-through. Several comments expressed concern about the high speed of vehicular traffic along these corridors. These corridors were also identified to have poor cyclist visibility. The inclusion of traffic calming measures was suggested in an effort to reduce high speed vehicular traffic and to improve both cyclist and pedestrian visibility.

Several comments from the public were provided regarding pedestrian safety. Corridors identified as being in need of increased pedestrian traffic safety measures included Veteran Avenue, Le Conte Avenue, Wilshire Avenue, and Tiverton Avenue. Survey participants voiced the desire for sidewalk improvements along these streets, including pavement repairs and widened sidewalks. The desire for traffic calming measures and improved pedestrian visibility was also identified along these corridors. Comments suggested that these improvements would not only maximize pedestrian safety but create an added benefit for local businesses along these avenues.

In summary, comments received focused on improvements to safety for cyclists and pedestrians. While most comments regarding improved bicycle infrastructure expressed a desire for protected bicycle lanes, some comments highlighted the need for bike hubs and lockers at locations including Broxton Avenue. See Appendix A for all comments recorded from this survey.

6.3. Metro Purple Line Extension Survey

In junction with the pop-up events, Metro administered an electronic survey for community members that participated in the pop-up event stacker chip exercise. Surveys were administered using a tablet available at the pop-up events. Survey topics covered:

- Basic respondent demographics
- Potential ridership of the Purple Line Extension
- Respondent destinations
- Current station area satisfaction
- Respondent travel behaviors

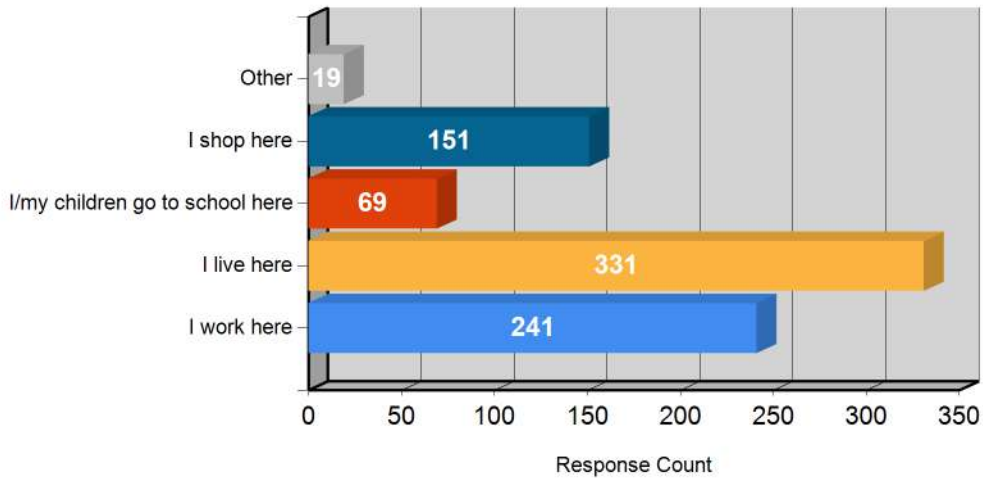
Results from the survey indicate that more landscaping and shade (63% as extremely or very important) would be the most requested first/last mile improvement for potential Purple Line Extension riders. Other key improvements include improved pedestrian and bike lighting (62%) and new or improved crosswalks (59%). The least requested improvements include more designated scooter parking (49%) and more street furniture (46%).

All survey questions and associated results of the survey are shown below.

Section: Intro

What is your relation to the Westside area? (select all that apply)

Total Respondents:	443
Total Skipped:	6



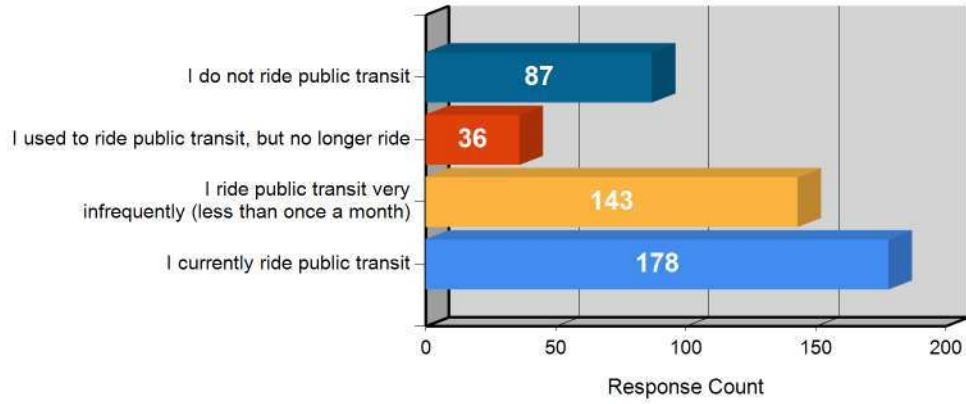
Choice	Response Percent	Response Total
1 I work here	54.40 %	241
2 I live here	74.72 %	331
3 I/my children go to school here	15.58 %	69
4 I shop here	34.09 %	151
5 Other	4.29 %	19

Analytics	
Mean	2.231
Standard Deviation	1.133
Standard Error	0.040
Variance	1.285

Section: Intro

Which of the following statements best describes how you travel throughout LA County?

Total Respondents:	444
Total Skipped:	0



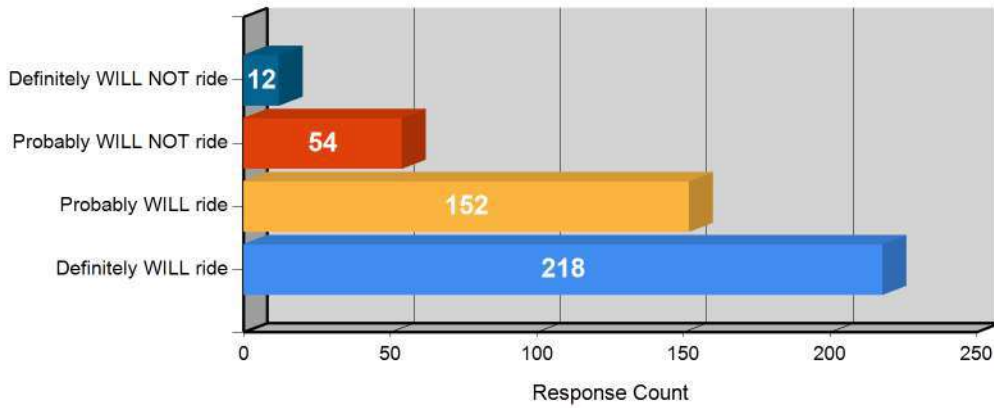
	Choice	Response Percent	Response Total
1	I currently ride public transit	40.09 %	178
2	I ride public transit very infrequently (less than once a month)	32.21 %	143
3	I used to ride public transit, but no longer ride	8.11 %	36
4	I do not ride public transit	19.59 %	87

Analytics	
Mean	2.072
Standard Deviation	1.123
Standard Error	0.053
Variance	1.261
Top 2	72.30%
Bottom 2	27.70%

Section: Intro

When the Purple Line is extended to Westwood/VA Hospital, how likely are you to ride it?

Total Respondents:	436
Total Skipped:	0



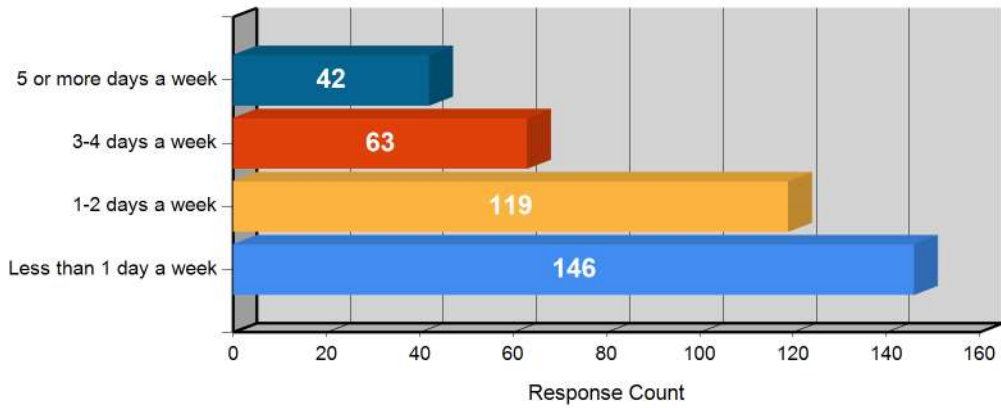
	Choice	Response Percent	Response Total
1	Definitely WILL ride	50.00 %	218
2	Probably WILL ride	34.86 %	152
3	Probably WILL NOT ride	12.39 %	54
4	Definitely WILL NOT ride	2.75 %	12

Analytics	
Mean	1.679
Standard Deviation	0.794
Standard Error	0.038
Variance	0.631
Top 2	84.86%
Bottom 2	15.14%

Section: Intro

How often do you think you will ride it?

Total Respondents:	370
Total Skipped:	0



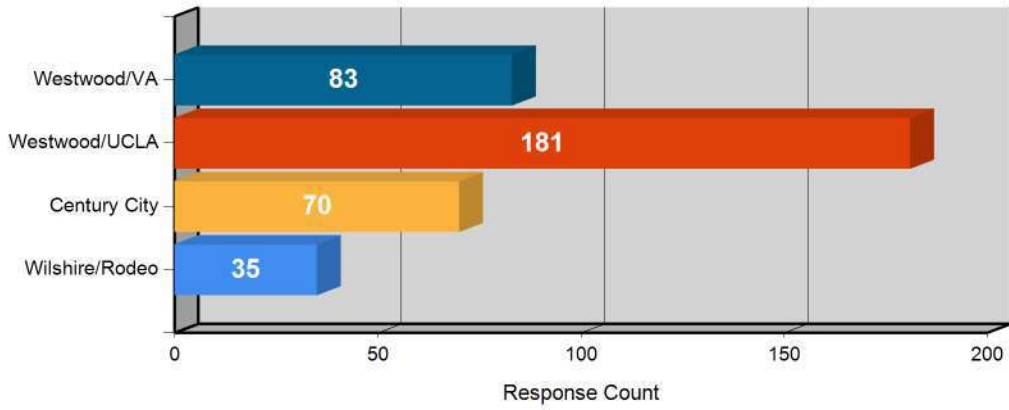
	Choice	Response Percent	Response Total
1	Less than 1 day a week	39.46 %	146
2	1-2 days a week	32.16 %	119
3	3-4 days a week	17.03 %	63
4	5 or more days a week	11.35 %	42

Analytics	
Mean	2.003
Standard Deviation	1.009
Standard Error	0.052
Variance	1.019
Top 2	71.62%
Bottom 2	28.38%

Section: Riders

When the Purple Line Extension opens, which station would you use the most?

Total Respondents:	369
Total Skipped:	0



	Choice	Response Percent	Response Total
1	Wilshire/Rodeo	9.49 %	35
2	Century City	18.97 %	70
3	Westwood/UCLA	49.05 %	181
4	Westwood/VA	22.49 %	83

Analytics	
Mean	2.846
Standard Deviation	0.878
Standard Error	0.046
Variance	0.770
Top 2	28.46%
Bottom 2	71.54%

Section: Riders

What are some of the destinations you will use this station to visit? (select all that apply)

Total Respondents:	33
Total Skipped:	0



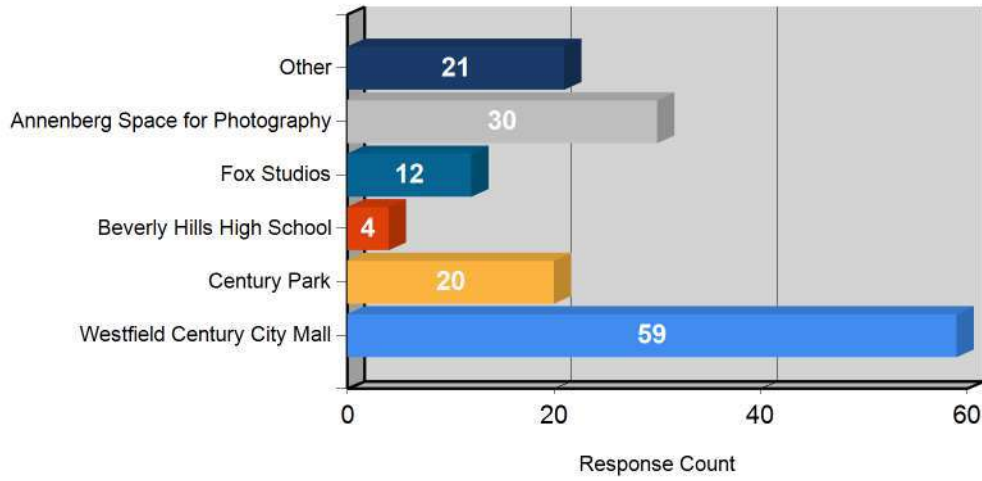
Choice	Response Percent	Response Total
1 Rodeo Drive shopping/dining	36.36 %	12
2 Beverly Hills City Hall	18.18 %	6
3 Wallis Annenberg Center for the Performing Arts	21.21 %	7
4 Residential neighborhoods	42.42 %	14
5 Other	33.33 %	11

Analytics	
Mean	3.120
Standard Deviation	1.492
Standard Error	0.211
Variance	2.226

Section: Riders

What are some of the destinations you will use this station to visit? (select all that apply)

Total Respondents:	71
Total Skipped:	0



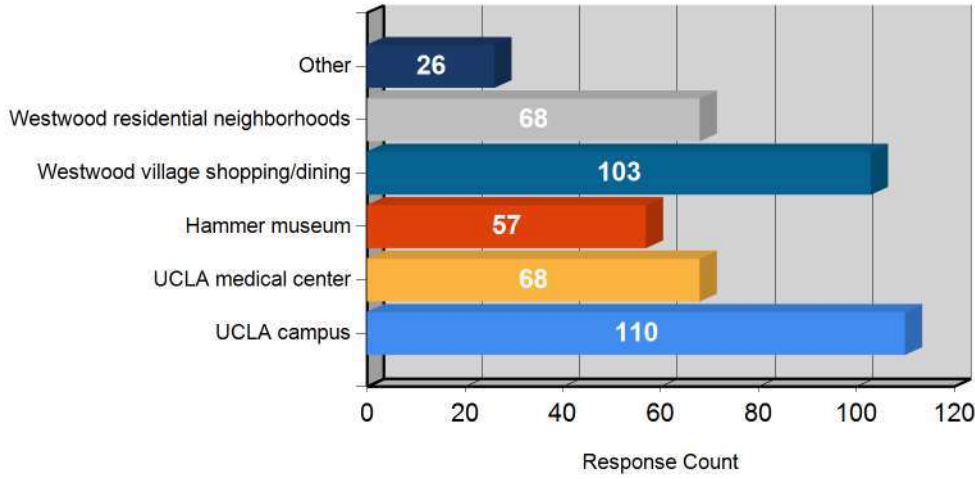
Choice	Response Percent	Response Total
1 Westfield Century City Mall	83.10 %	59
2 Century Park	28.17 %	20
3 Beverly Hills High School	5.63 %	4
4 Fox Studios	16.90 %	12
5 Annenberg Space for Photography	42.25 %	30
6 Other	29.58 %	21

Analytics	
Mean	2.979
Standard Deviation	1.988
Standard Error	0.165
Variance	3.952

Section: Riders

What are some of the destinations you will use this station to visit? (select all that apply)

Total Respondents:	177
Total Skipped:	0



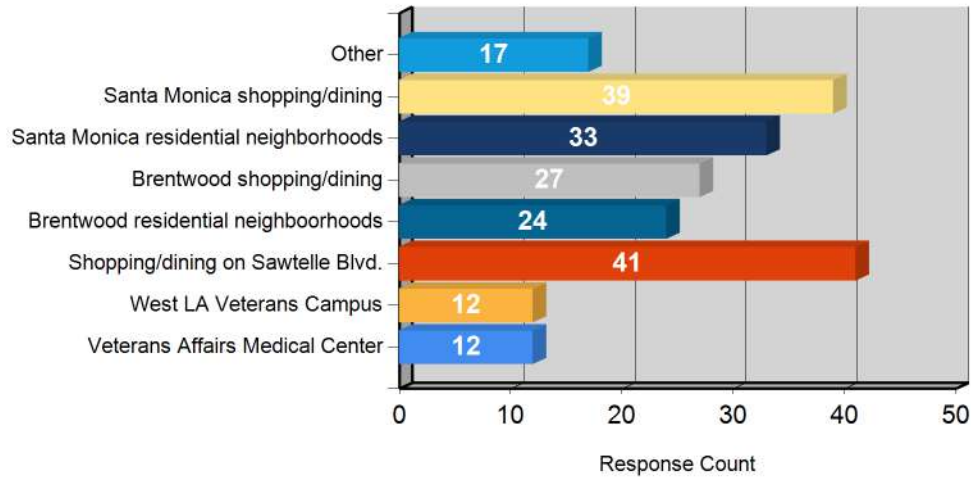
Choice	Response Percent	Response Total
1 UCLA campus	62.15 %	110
2 UCLA medical center	38.42 %	68
3 Hammer museum	32.20 %	57
4 Westwood village shopping/dining	58.19 %	103
5 Westwood residential neighborhoods	38.42 %	68
6 Other	14.69 %	26

Analytics	
Mean	3.067
Standard Deviation	1.607
Standard Error	0.077
Variance	2.581

Section: Riders

What are some of the destinations you will use this station to visit? (select all that apply)

Total Respondents:	82
Total Skipped:	0



Choice	Response Percent	Response Total
1 Veterans Affairs Medical Center	14.63 %	12
2 West LA Veterans Campus	14.63 %	12
3 Shopping/dining on Sawtelle Blvd.	50.00 %	41
4 Brentwood residential neighborhoods	29.27 %	24
5 Brentwood shopping/dining	32.93 %	27
6 Santa Monica residential neighborhoods	40.24 %	33
7 Santa Monica shopping/dining	47.56 %	39
8 Other	20.73 %	17

Analytics	
Mean	4.863
Standard Deviation	2.008
Standard Error	0.140
Variance	4.030

Section: Satisfaction

On a scale of 1-5, how **SATISFIED** are you with the **CURRENT** street conditions around **THIS** station?

Total Respondents:	322
Total Skipped:	0

	1 (Not at all Satisfied)	2	3	4	5 (Extremely Satisfied)	Response Total
Sidewalks	15.5%	18.3%	35.7%	22.7%	7.8%	322
	50	59	115	73	25	
Bus stops	14.9%	21.7%	35.7%	19.9%	7.8%	322
	48	70	115	64	25	
Quality and amount of crosswalks	14.0%	19.6%	38.2%	19.3%	9.0%	322
	45	63	123	62	29	
Speed of traffic near pedestrian areas	19.6%	24.5%	34.5%	15.8%	5.6%	322
	63	79	111	51	18	
Landscaping and shade	18.6%	20.5%	38.8%	15.8%	6.2%	322
	60	66	125	51	20	
Bike infrastructure	25.2%	23.9%	33.2%	12.7%	5.0%	322
	81	77	107	41	16	
Pedestrian and bike lighting	17.4%	23.6%	34.2%	17.7%	7.1%	322
	56	76	110	57	23	
Designated scooter parking	29.5%	19.3%	34.5%	10.2%	6.5%	322
	95	62	111	33	21	
Bicycle parking	21.7%	21.7%	38.5%	12.7%	5.3%	322
	70	70	124	41	17	
Wayfinding signage	13.7%	20.5%	44.7%	15.5%	5.6%	322
	44	66	144	50	18	
Street furniture	17.7%	21.7%	41.6%	14.6%	4.3%	322
	57	70	134	47	14	
Totals:	669	758	1,319	570	226	

	Top 2	Bottom 2
Sidewalks	30.43%	33.85%
Bus stops	27.64%	36.65%
Quality and amount of crosswalks	28.26%	33.54%
Speed of traffic near pedestrian areas	21.43%	44.10%
Landscaping and shade	22.05%	39.13%
Bike infrastructure	17.70%	49.07%
Pedestrian and bike lighting	24.84%	40.99%
Designated scooter parking	16.77%	48.76%
Bicycle parking	18.01%	43.48%
Wayfinding signage	21.12%	34.16%
Street furniture	18.94%	39.44%

Section: Importance

On a scale of 1-5, how IMPORTANT to you are the following street improvements around THIS station?

Total Respondents:	303
Total Skipped:	0

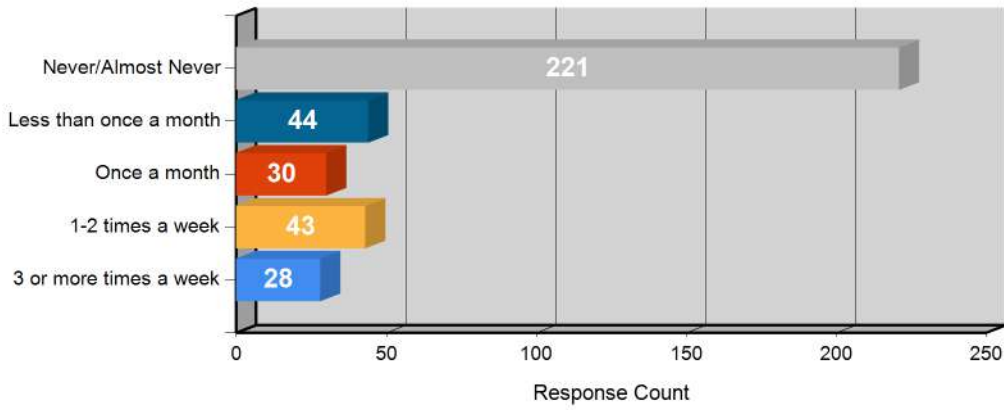
	1 (Not at all Important)	2	3	4	5 (Extremely Important)	Response Total
Improved sidewalks	5.6%	10.9%	27.7%	23.1%	32.7%	303
	17	33	84	70	99	
Improved bus stops	7.9%	9.9%	26.4%	24.1%	31.7%	303
	24	30	80	73	96	
New or improved crosswalks	6.3%	7.6%	26.7%	30.0%	29.4%	303
	19	23	81	91	89	
Slowing speed of traffic near pedestrian areas	9.9%	11.2%	25.4%	23.4%	30.0%	303
	30	34	77	71	91	
More landscaping and shade	5.6%	5.9%	25.4%	31.0%	32.0%	303
	17	18	77	94	97	
More bike infrastructure	7.9%	8.6%	31.0%	23.4%	29.0%	303
	24	26	94	71	88	
Improved pedestrian and bike lighting	5.3%	9.9%	22.8%	27.1%	35.0%	303
	16	30	69	82	106	
More designated scooter parking	16.2%	11.6%	29.0%	22.1%	21.1%	303
	49	35	88	67	64	
More bicycle parking	8.9%	11.6%	30.4%	27.1%	22.1%	303
	27	35	92	82	67	
Improved wayfinding signage	6.3%	10.2%	31.0%	29.0%	23.4%	303
	19	31	94	88	71	
More street furniture	10.2%	12.9%	30.7%	25.4%	20.8%	303
	31	39	93	77	63	
Totals:	273	334	929	866	931	

	Top 2	Bottom 2
Improved sidewalks	55.78%	16.50%
Improved bus stops	55.78%	17.82%
New or improved crosswalks	59.41%	13.86%
Slowing speed of traffic near pedestrian areas	53.47%	21.12%
More landscaping and shade	63.04%	11.55%
More bike infrastructure	52.48%	16.50%
Improved pedestrian and bike lighting	62.05%	15.18%
More designated scooter parking	43.23%	27.72%
More bicycle parking	49.17%	20.46%
Improved wayfinding signage	52.48%	16.50%
More street furniture	46.20%	23.10%

Section: Everyone

How often do you travel by bike share or shared e-scooter in this area?

Total Respondents:	366
Total Skipped:	0



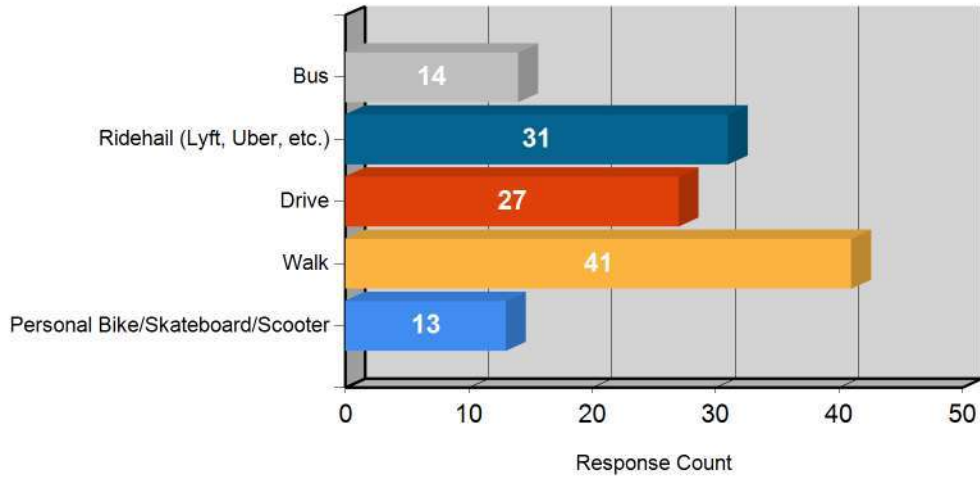
	Choice	Response Percent	Response Total
1	3 or more times a week	7.65 %	28
2	1-2 times a week	11.75 %	43
3	Once a month	8.20 %	30
4	Less than once a month	12.02 %	44
5	Never/Almost Never	60.38 %	221

Analytics	
Mean	4.057
Standard Deviation	1.357
Standard Error	0.071
Variance	1.841
Top 2	19.40%
Bottom 2	72.40%

Section: Everyone

What mode did you previously use to make these trips before switching to bike share/scooter? (select all that apply)

Total Respondents:	69
Total Skipped:	0



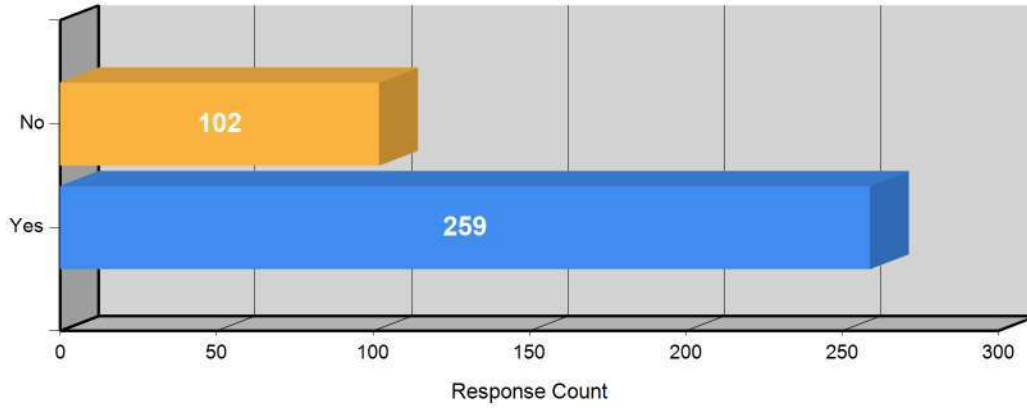
Choice	Response Percent	Response Total
1 Personal Bike/Skateboard/Scooter	18.84 %	13
2 Walk	59.42 %	41
3 Drive	39.13 %	27
4 Ridehail (Lyft, Uber, etc.)	44.93 %	31
5 Bus	20.29 %	14

Analytics	
Mean	2.937
Standard Deviation	1.194
Standard Error	0.106
Variance	1.425

Section: Everyone

Do you currently commute to work or school?

Total Respondents:	361
Total Skipped:	0



	Choice	Response Percent	Response Total
1	Yes	71.75 %	259
2	No	28.25 %	102

Analytics	
Mean	1.283
Standard Deviation	0.450
Standard Error	0.024
Variance	0.203

Section: Everyone

How often do you use the following modes to commute?

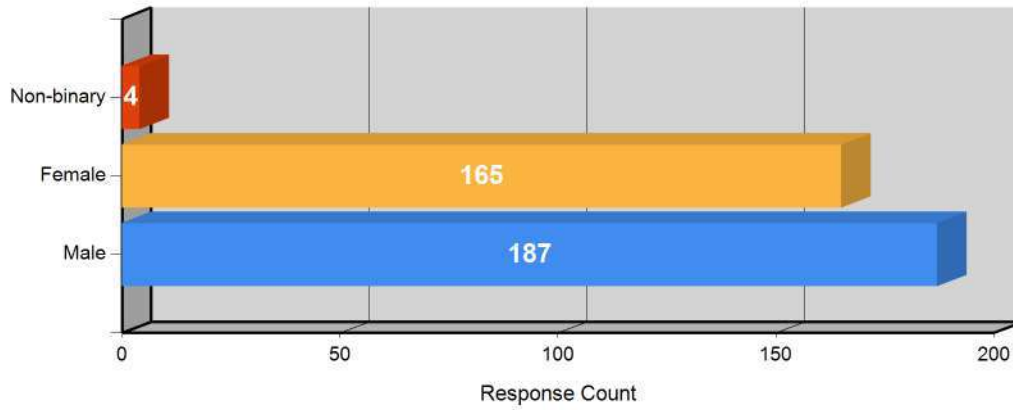
Total Respondents:	259
Total Skipped:	0

	Never/Almost Never	Less than 1 day a week	1-2 days a week	3-4 days a week	5 or more days a week	Response Total
Drive by myself	35.9%	8.9%	10.0%	13.5%	31.7%	259
	93	23	26	35	82	
Get dropped off by a friend/family member, carpool, or vanpool	69.9%	15.8%	5.4%	4.6%	4.2%	259
	181	41	14	12	11	
Ridehail (Uber/Lyft)	61.8%	21.6%	8.9%	5.4%	2.3%	259
	160	56	23	14	6	
Walk	60.2%	10.4%	7.3%	6.6%	15.4%	259
	156	27	19	17	40	
Bicycle	75.7%	8.9%	6.9%	2.7%	5.8%	259
	196	23	18	7	15	
Skateboard	96.9%	1.5%	0.0%	0.8%	0.8%	259
	251	4	0	2	2	
Scooter	82.6%	8.9%	5.0%	1.9%	1.5%	259
	214	23	13	5	4	
Metro Buses	56.8%	15.1%	7.7%	7.7%	12.7%	259
	147	39	20	20	33	
Bus or rail service not operated by Metro (e.g. Metrolink, DASH, Long Beach Transit, Big Blue Bus, etc.)	51.4%	14.3%	10.8%	8.5%	15.1%	259
	133	37	28	22	39	
Totals:	1,531	273	161	134	232	

	Top 2	Bottom 2
Drive by myself	44.79%	45.17%
Get dropped off by a friend/family member, carpool, or vanpool	85.71%	8.88%
Ridehail (Uber/Lyft)	83.40%	7.72%
Walk	70.66%	22.01%
Bicycle	84.56%	8.49%
Skateboard	98.46%	1.54%
Scooter	91.51%	3.47%
Metro Buses	71.81%	20.46%
Bus or rail service not operated by Metro (e.g. Metrolink, DASH, Long Beach Transit, Big Blue Bus, etc.)	65.64%	23.55%

Section: Ending
What is your gender identity?

Total Respondents:	356
Total Skipped:	2



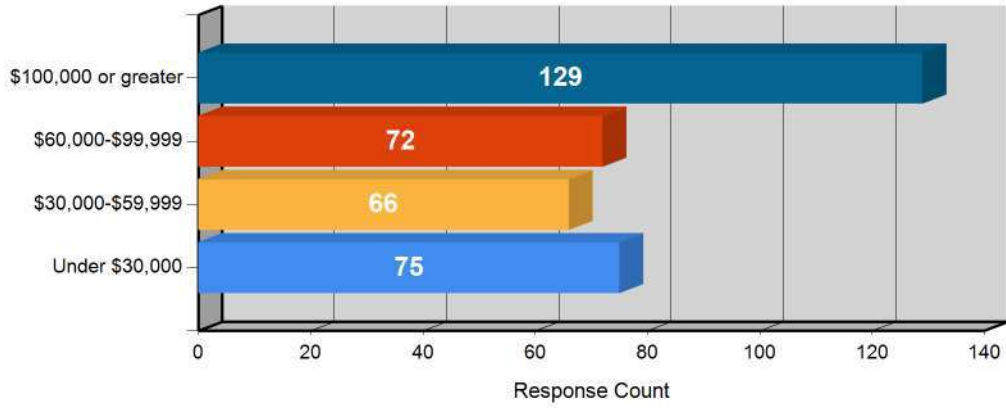
	Choice	Response Percent	Response Total
1	Male	52.53 %	187
2	Female	46.35 %	165
3	Non-binary	1.12 %	4

Analytics	
Mean	1.486
Standard Deviation	0.522
Standard Error	0.028
Variance	0.272

Section: Ending

What is your annual household income?

Total Respondents:	342
Total Skipped:	16



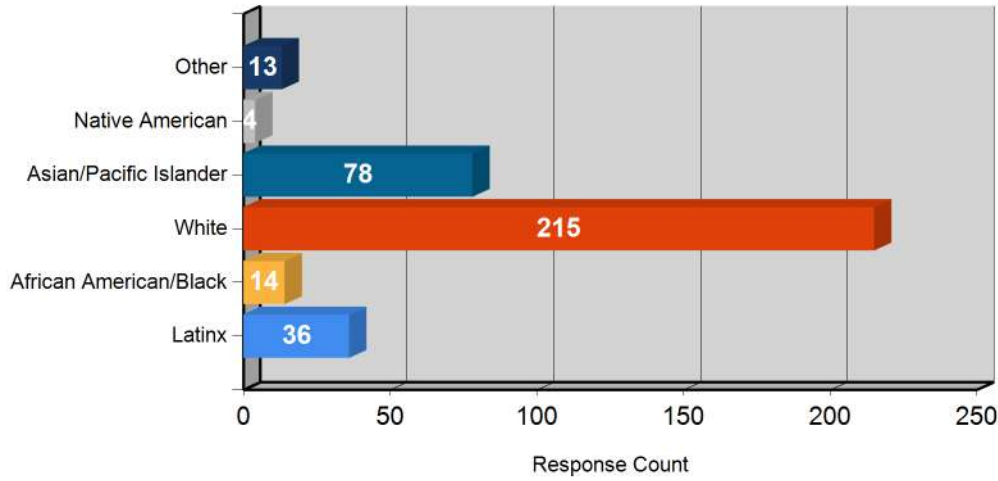
	Choice	Response Percent	Response Total
1	Under \$30,000	21.93 %	75
2	\$30,000-\$59,999	19.30 %	66
3	\$60,000-\$99,999	21.05 %	72
4	\$100,000 or greater	37.72 %	129

Analytics	
Mean	2.746
Standard Deviation	1.176
Standard Error	0.064
Variance	1.383
Top 2	41.23%
Bottom 2	58.77%

Section: Ending

What is your ethnicity? (select all that apply)

Total Respondents:	344
Total Skipped:	11

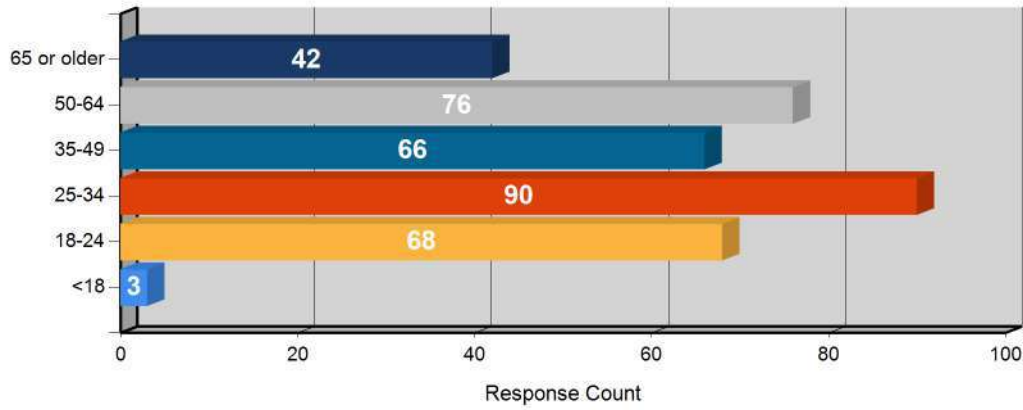


Choice	Response Percent	Response Total
1 Latinx	10.47 %	36
2 African American/Black	4.07 %	14
3 White	62.50 %	215
4 Asian/Pacific Islander	22.67 %	78
5 Native American	1.16 %	4
6 Other	3.78 %	13

Analytics	
Mean	3.108
Standard Deviation	1.007
Standard Error	0.053
Variance	1.013

Section: Ending
What is your age?

Total Respondents:	345
Total Skipped:	10

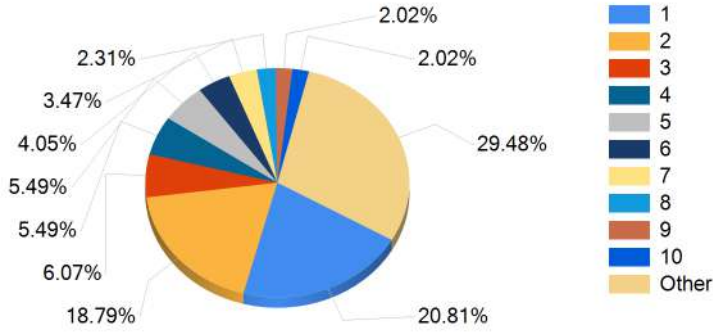


	Choice	Response Percent	Response Total
1	<18	0.87 %	3
2	18-24	19.71 %	68
3	25-34	26.09 %	90
4	35-49	19.13 %	66
5	50-64	22.03 %	76
6	65 or older	12.17 %	42

Analytics	
Mean	3.783
Standard Deviation	1.337
Standard Error	0.072
Variance	1.788
Top 2	20.58%
Bottom 2	34.20%

Section: Ending
What is your 5 digit home zip code?

Total Respondents:	346
Total Skipped:	8



Rank	Answer	Response Percent	Response Total
1	90024	20.81%	72
2	90025	18.79%	65
3	90064	6.07%	21
4	90034	5.49%	19
5	90049	5.49%	19
6	90405	4.05%	14
7	90404	3.47%	12
8	90230	2.31%	8
9	90066	2.02%	7
10	90212	2.02%	7
Other		29.48%	102

Analytics	
Highest	94,454.00
Average	90,245.25
Lowest	90,001.00
Total	31,224,855.00

7. Local Agency Coordination Summary

The development of the Metro Purple Line Extension Section 2 & 3 First/Last Mile Plan included ongoing coordination with local agencies located along the extension alignment. This coordination included two series of meetings. The first series was conducted in late 2018 and early 2019 prior to the walk audits and community engagement efforts. The objectives of these initial meetings were to introduce the first/last mile planning effort and objectives, provide the local agencies with opportunities to discuss existing and first/last mile needs and challenges, and discuss the upcoming walk audit and community engagement approach.

Local agency meetings, including the date of the meeting and departments participating, that were conducted during this time included the following:

- University of California, Los Angeles – September 13, 2018 – Executive Director and staff from UCLA Events & Transportation Department
- City of Beverly Hills – December 7, 2018 – Deputy Director of Transportation, Transportation staff, Engineering staff.
- County of Los Angeles – July 17, 2018 – Staff from Public Works (Civil Engineering, Rail Coordination)
- City of Los Angeles – May 3, 2019 – Staff from several departments, including DOT, City Planning, Bureau of Street Lighting, Bureau of Engineering, and Urban Design.
- Veterans Administration Medical Center – February 12, 2019 – VA staff and staff from VA consultant responsible for preparing the updated campus master plan.

The second phase of local agency coordination involved meetings and an opportunity to review and comment on the draft First/Last Mile Pathway Network and supporting materials. The objective of these meetings and review period was to provide local agencies with the opportunity to review and provide comments on the draft materials, particularly in the areas of project prioritization and project selection for projects that would move into 30% design. Meetings during this second phase of coordination were conducted with:

- University of California, Los Angeles – October 11, 2019 – Executive Director and staff from UCLA Events & Transportation Department
- City of Beverly Hills – November 4, 2019 – Deputy Director of Transportation, Transportation staff, Engineering staff.
- County of Los Angeles – November 13, 2019 – Staff from Public Works (Civil Engineering, Rail Coordination)
- City of Los Angeles – January 28, 2020 – Staff from several departments, including DOT, City Planning, Bureau of Street Lighting, Bureau of Engineering, and Urban Design.

A meeting with representatives from the Veterans Administration Medical Center was not conducted during this time period. However, the input received from VA staff during the first phase of local agency coordination is reflected in the draft first/last mile plan for the Westwood/ VA Station.

Coordination with these local agencies would continue, and would increase in frequency, during the preliminary engineering and environmental phase of the first/last mile planning effort.

Appendix A

The following are all comments received from the Metro Westwood Feedback Survey. The comments are organized by street corridor and are presented unedited. There were 12 survey respondents and 45 total comments recorded from this survey. For more information regarding the Metro Westwood Feedback Survey, please see Section 6.2.

Comments related to Westwood Boulevard:

- I strongly support protected lanes on Westwood Blvd. & related improvements. Should include bus stop islands too, plenty of room. Protected lanes should continue south to the Expo Line or at least Santa Monica Blvd.
- I strongly support the proposed protected bike lane on Westwood Blvd. This is much needed infrastructure to provide North/South access to Westwood Village and UCLA campus from the train and housing in Westwood and adjacent neighborhoods.
- I support all the proposed improvements and especially want to express my strong support for protected, ideally separated, bicycle lanes in both directions on Westwood Blvd.
- "Bulb Outs" or "Bike Friendly Intersection extensions" should NOT interfere with Bus Stops or Double Right Turn Lanes/Pockets at Wilshire Bl. The 109021/109001 Wilshire Bl Highrise Office Building parking garage entrance is on the 1101 block of Westwood Bl, just around the corner from the Wilshire/Westwood Portal. Pedestrian safety will be an issue here. This same 1101 block of Westwood Bl should be a "Walk Your Bike Zone" for everyone's safety.
- Segregated bicycle infrastructure on Westwood is absolutely required and we applaud this designation for Westwood Blvd. Nothing less will do for a world class university. Objections of well organized home-owners must be weighed against the interests of a large majority of renters living in the area and using the area. Northbound left turn pocket at LeConte is no longer necessary as it is mostly used by redundant traffic seeking surface parking
- This street is too narrow and too dangerous for bicycle lanes. The small businesses cannot afford to lose parking. CM Koretz has already determined not to allow bicycle lanes.
- Agreement with Metro proposed corridor and spot improvements from Wilshire to Le Conte Ave. Emphasis on improving sidewalks, crosswalks, and improving pedestrian safety on the entire street. Emphasis on completing a study on the feasibility of bike lanes on this street. Emphasis on bus improvements and also studying existing bus traffic and evaluating whether the street could/should have a bus-only lane (either on Gayley Ave or Westwood Blvd)

Comments related to Wilshire Avenue:

- Need under or over ground crossings to get from one side of the street to the other without impacting street traffic. Pedestrian traffic during peak transit times will be enormous and it will be dangerous to have that many people on the narrow sidewalks.
- Curb lanes on Wilshire are Bus Only Lanes during AM & PM peak hours & general travel lane the rest of the time. Bulb Outs or Bike Friendly Intersection extensions would impede or compromise the function of the Bus Only Lanes. Wilshire Bl intersections at Veteran, Gayley, & Westwood Bl are 3 of the 5 highest volume intersections in the entire City of LA! To accommodate the extreme AM EastBound & PM WestBound volumes of vehicles heading to & from UCLA, LADOT has implemented EB Double Left Turn Pockets heading into Westwood Village/UCLA at: Veteran Av, Gayley Av, and Westwood Bl as well as Double Right Turn Lane Pockets leading to WestBound Wilshire (I-405) from: Veteran, Gayley, and Westwood Bl. PLEASE DO NOT eliminate the Double Pockets, the Purple Subway will NOT be a transit option for motorists coming from South Bay or San Fernando Valley via I-405. LADOT times Wilshire traffic lights with their ATSAC system, pedestrian scramble intersections are not compatible with ATSAC timing.

- Bus stops on Wilshire in the project area are consistently narrow and lack space to accommodate waiting passengers, passing peds and the bikes which take refuge here. To improve stop west of Federal Westbound on W in front of Natl Cemetery the narrow sidewalk needs widening. "Bus Stop Improvements" must mean more than a coat of paint or a sun shade or seat, we need to re-assign road space to transit users and peds See # 8 here <https://bicycleacademy.blogspot.com/2019/11/the-path-to-platinum-leads-through.html>. At Westwood Wilshire your analysis should include removal the inside turn lane (there are two, one would suffice) from southbound Westwood to westbound Wilshire
- Agreement with Metro proposed corridor and spot improvements from Veteran to Gayley Ave. Emphasis on improving crosswalks and improving pedestrian safety on the entire street. Emphasis on safety enhancements to improve and repair sidewalks and potentially widen sidewalk areas for riders entering and exiting the portals. Emphasis on the safety and mobility improvements at the intersection of Wilshire Blvd. and Veteran.

Comments related to Gayley Avenue:

- The protected bike lane should be prioritized for Westwood blvd as there is space and it does not conflict with ambulance traffic. However, Gayley still needs good bike parking and smart street crossings as there will be thousands of riders per day.
- I support all the proposed improvements and especially want to express my strong support for protected, ideally separated, bicycle lanes in both directions on Gayley Ave.
- Gayley Av is the Reagan UCLA Med. Ctr. FEIR designated Emergency Vehicle route to UCLA's Reagan Emergency Vehicle Entrance. Gayley MUST maintain 2 travel lanes in each direction to provide space for Emergency Vehicles under "lights & sirens" to pass cars & buses safely and comply with County mandated Emergency Vehicle response times. "Bulb Outs" or "Bike Friendly Intersection Extensions" should NOT interfere with Bus Stops or Double Right Turn Lanes/Pockets at Wilshire & Gayley.
- Gayley should lose its middle left turn lane (aka suicide lane) and make space for active uses bike lanes, ped spaces. Concerns about emergency services here and elsewhere must be answered by weighing the health broad benefits of a slower environment against the singular delay of a minute or two. We can not optimize our streets for ambulance traffic
- Agreement with Metro proposed corridor and spot improvements from Wilshire to Le Conte Ave. Emphasis on improving sidewalks, crosswalks, and improving overall pedestrian safety on the entire street. Emphasis on completing a study on the feasibility of bike lanes on this street. Emphasis on widening sidewalks on the east and west sides of the street to encourage pedestrian activity and sidewalk dining and business activity. Emphasis on bus improvements and studying existing bus traffic and evaluating whether the street could/should have a bus-only lane (either on Gayley Ave or Westwood Blvd)

Comments related to Veteran Avenue:

- I used to live on Veteran Ave. while at UCLA. bike lanes much needed. Remove some on street parking to make this a protected bike lane as well? should continue south to at least Santa Monica blvd. even with the proposed Shared use path (which is also a good idea).
- Bike infrastructure ON veteran, not only for intersections, is required.
- There is no room for bicycle lanes south of Wilshire.
- I support all the proposed improvements and especially recommend sidewalk improvements.
- Veteran & Kinross: Bulb Outs restrict the movement of buses and should only be used where bus traffic is minimal. The west side of Veteran Av (Wilshire to Levering) does not have paved sidewalks except for about 30 feet just north of Wilshire Bl.

Comments related to Ohio Avenue:

- I strongly support protected lanes on Ohio. & related improvements. Ohio is an important alternative to Wilshire/Santa Monica to get across the 405. Improvements should continue west to at least Barrington or Bundy.
- I strongly support the proposed protected bike lane on Ohio Blvd. This is much needed infrastructure and will provide East/West access to Westwood village and the train from housing in West LA, Sawtelle, and greater westside where graduate students live.
- Segregated bicycle infrastructure on Ohio is absolutely required and we applaud this designation here
- The intersection of Ohio & Kelton is a dangerous intersection with numerous accidents. These accidents include a hit and run and injuries. This is due to southbound vehicle speed from Midvale and a general lack of visibility. Vehicle speeds are so low during AM/PM that traffic calming measures are certainly not practical

Comments related to Le Conte Avenue:

- As someone who used to commute on Le Conte a bike lane is very much needed. Perhaps some on street parking could be removed to make this a protected bike lane as well?
- Too many buses turning on to or from Le Conte for Bulb Outs to work, Bulb Outs increase the turning radius needed to make right turns & reduced the street width that buses will be turning into which will slow traffic and make conditions for pedestrians & cyclists more dangerous.
- Leconte & Hilgard is a challenge because of the terrain, steep hills lead to dangerous speeds and require special accommodation. Road surface is often failing and dangerous cracks and uneven surface (see also Kinross) Lecont and Westwood, remove underused left turn lane for northbound of Westwood to gain space for bike infrastructure
- Agreement with Metro proposed corridor and spot improvements from Gayley Ave to Hilgard Ave. Emphasis on bus improvements. Emphasis on improving pedestrian safety

Comments related to Hilgard Avenue:

- Bike lanes are not effective in protecting cyclists. Metro should be prioritizing protected lanes to provide the best safety and promote cycling within this FLM region. This should be a protected bike lane.
- I support all the proposed improvements and especially recommend the crosswalk improvements.
- Agreement with Metro proposed corridor and spot improvements from Le Conte Ave. to Lindbrook. Add traffic calming measures to this street as vehicles tend to speed down to the hill. Emphasis on improving pedestrian safety and repairing damaged sidewalks

Comments related to Midvale Avenue and Kelton Avenue:

- Kelton is also an important north-south route and if only a bike blvd. is proposed it should include traffic diverters, chicanes, bulbouts, etc. to slow vehicle traffic.
- Bicycle lanes could be considered north of Ohio.

Comments related to Lindbrook Drive:

- High bus volume at Lindbrook & Gayley , Bulb Outs will impede existing bus movement.
- Agreement with Metro proposed corridor and spot improvements from Gayley to Hilgard Ave. Emphasis on improving pedestrian safety and repairing damaged sidewalks

Comments related to Weyburn Avenue:

- It appears that Bulb Outs work best where there is street parking along the curb. Between Veteran & Weyburn PLACE there is no existing street parking. There isn't enough street width to add a Bulb

Out at the corner of this "T" intersection and still maintain a Right turn and Left turn lane (these are the only 2 WB lanes on Weyburn Av).

- Agreement with Metro proposed corridor and spot improvements from Gayley Ave to Hilgard Ave. Emphasis on improving pedestrian safety and repairing damaged sidewalks

Comments related to Broxton Avenue:

- Agreement with Metro proposed corridor and spot improvements from Le Conte Ave. to Kinross. Note: The Westwood Village Improvement Association is creating a pedestrian plaza on Broxton between Weyburn and Kinross (no vehicles). Emphasis on bike facilities on this street and potentially leasing space in the LADOT-operated City-owned parking structure that has ground floor vacancy that could be filled by a Metro store/bike hub/lockers, etc

Comments related to Tiverton Avenue:

- Agreement with Metro proposed corridor and spot improvements from Le Conte to Lindbrook. Emphasis on improving pedestrian safety and repairing damaged sidewalks

Comments related to the Westwood Recreation Center Cut-through:

- This is an important piece of infrastructure for folks living in West LA/Sawtelle area. However, a protected bike lane on Ohio is far more important and should be the priority. This must be signed very well and have a walk and a bike lane similar to the beach bike path.
- Curb cut and signage where this path meets Sepulveda needs updating: Create curb cut , remove "walk with bike signage" on both sides of Sepulveda, see item #4 here <https://bicycleacademy.blogspot.com/2019/11/the-path-to-platinum-leads-through.html>

Other comments:

- I support ALL of the remaining recommendations.
- 1000 character limit is too restrictive . See email for more comments
- Sidewalks around Wilshire/Westwood main Portal (NW corner) should be designated as "Walk Your Bike Zone", the competition of pedestrians and cyclists for sidewalk space at this portal will be tight & dangerous. Just around the corner from this portal on Westwood Bl is the Entrance & Exit to the 6-story parking garage for the 10901 & 10921 Wilshire high-rise buildings, adding to pedestrian danger. A Drop-off/Pick-up location for Lot 36Portal need to be added to the plans! Uber/Lyft & private vehicles stopping in the Wilshire curbside Bus/vehicle lane is NOT safe! Wilshire is complicated, traffic volumes on Wilshire are: Veteran, Gayley, & Westwood are greater than 125,000 per day, highest in The City. Traffic from I-405 going east to UCLA employment has peak morning & evening.

Next stop: connected communities.

WALK AUDIT RESULTS

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

Purple Line Extension Sections 2 & 3 Walk Audit Summary

Introduction

Eight walk audits – two for each station – were held in **January 2019** to gather on-the-ground knowledge of first/last mile conditions around four Purple Line Extension stations:

- Wilshire/Rodeo
- Century City
- Westwood/UCLA
- Westwood/VA Hospital

Key Takeaways

66 auditors recorded a **total of 462 observations** at the eight audits.

Community members recommended the **highest number of proposed improvements during the UCLA walk audit (207)**.

At Wilshire/Rodeo, observations focused on improving sidewalks and crosswalks for pedestrians. Auditors also identified opportunities for new bicycle infrastructure and wayfinding signage.

At Century City, crosswalks and sidewalks again rose to the top. These observations focused primarily on Santa Monica Blvd, Avenue of the Stars, and Century Park E. Additionally, auditors identified a then-gap in the bike network on Santa Monica Blvd. Pedestrian lighting was also important.

At the Westwood/UCLA station, improving sidewalks to alleviate pinch points and reflect ADA standards was the most frequently mentioned observation. Improving crosswalks was also important, particularly along Wilshire and at the 405 on-ramps.

At the Westwood/VA Hospital station, improving sidewalks was mentioned frequently. Auditors also identified improving crosswalk safety and improving pedestrian perceptions of safety. For the latter, auditors suggested adding pedestrian-oriented lighting and landscaped buffers to protect pedestrians from high-speed traffic.



Participants review project materials prior to the audit



Participants receive instructions on how to perform a walk audit at the VA Campus



Participants prepare to head out into the field

Audit Process

Walk audits were advertised and open to the public. Auditors were given an in-field presentation about the streetscape elements/conditions they should be judging. They were then trained on how to use a tablet to record observations using Metro's First/Last Mile app. This tablet allowed participants to geographically log observations with photos. Participants were asked to classify their observations as either a barrier, strength or idea and categorize it into one of the following categories:

- Bicycle Conditions
- Bus Stop Enhancements
- Crosswalks
- Landscaping & Shade
- Lighting
- Maintenance
- Public Art
- Safety
- Sidewalks
- Signage
- Street Furniture
- Traffic Speed
- Other (write-in and specify)

Data Methodology

This summary document uses a Connectivity category and a Safety & Comfort category to organize the audit observations into two discrete data layers. The categories are grouped as follows:

Connectivity

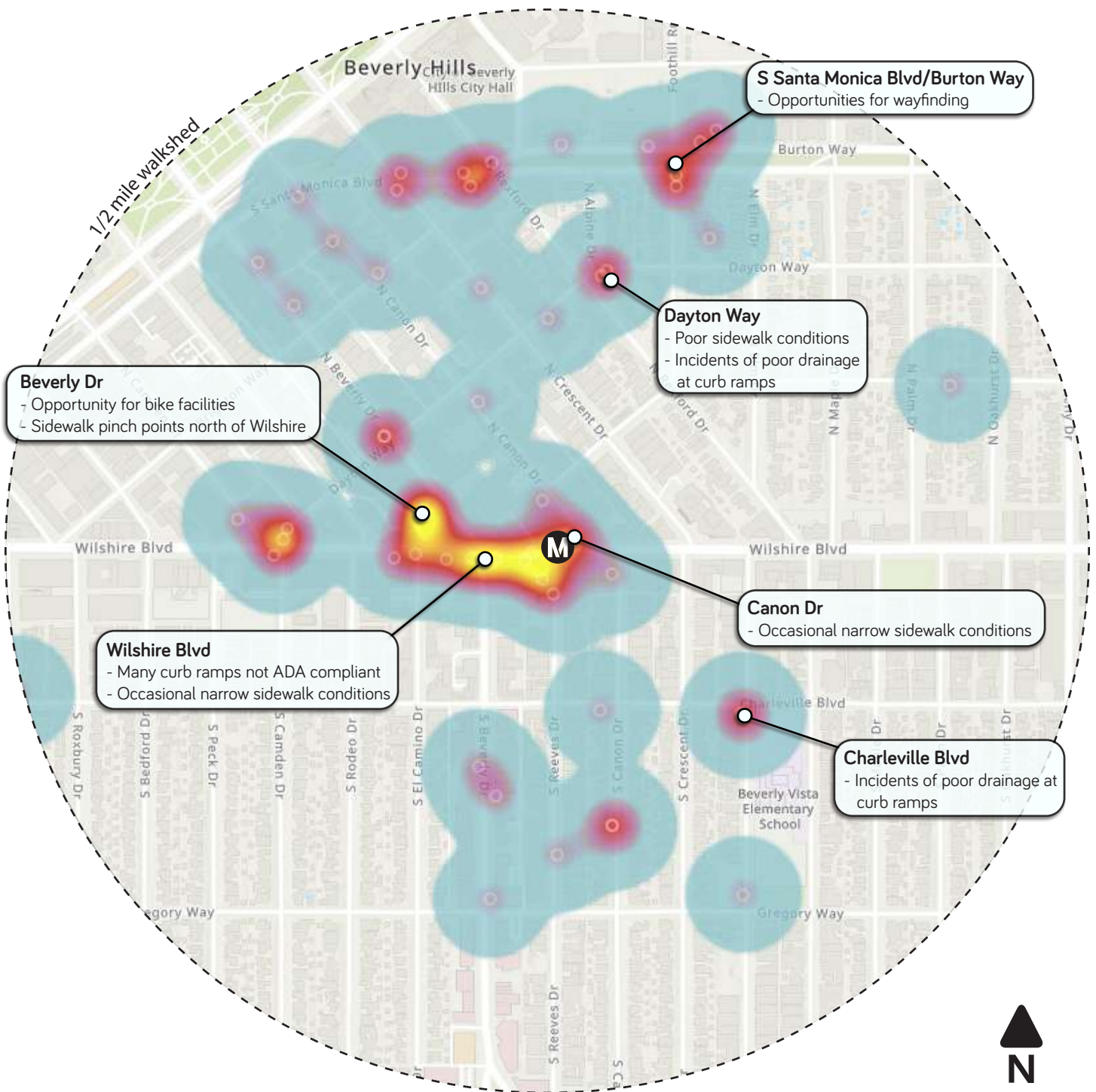
- Bicycle Conditions
- Maintenance
- Sidewalks
- Signage

Safety & Comfort

- Bus Stop Enhancements
- Crosswalks
- Landscaping & Shade
- Lighting
- Public Art
- Safety
- Street Furniture
- Traffic Speed

Comments categorized as "Other" were evaluated individually and categorized accordingly.

The following pages feature maps showing the density of audit observations. The observations were analyzed to identify corridor-wide trends and location-specific insight to improve the public realm.



Beverly Dr
 - Opportunity for bike facilities
 - Sidewalk pinch points north of Wilshire

Wilshire Blvd
 - Many curb ramps not ADA compliant
 - Occasional narrow sidewalk conditions

Dayton Way
 - Poor sidewalk conditions
 - Incidents of poor drainage at curb ramps

Canon Dr
 - Occasional narrow sidewalk conditions

Charville Blvd
 - Incidents of poor drainage at curb ramps

S Santa Monica Blvd/Burton Way
 - Opportunities for wayfinding

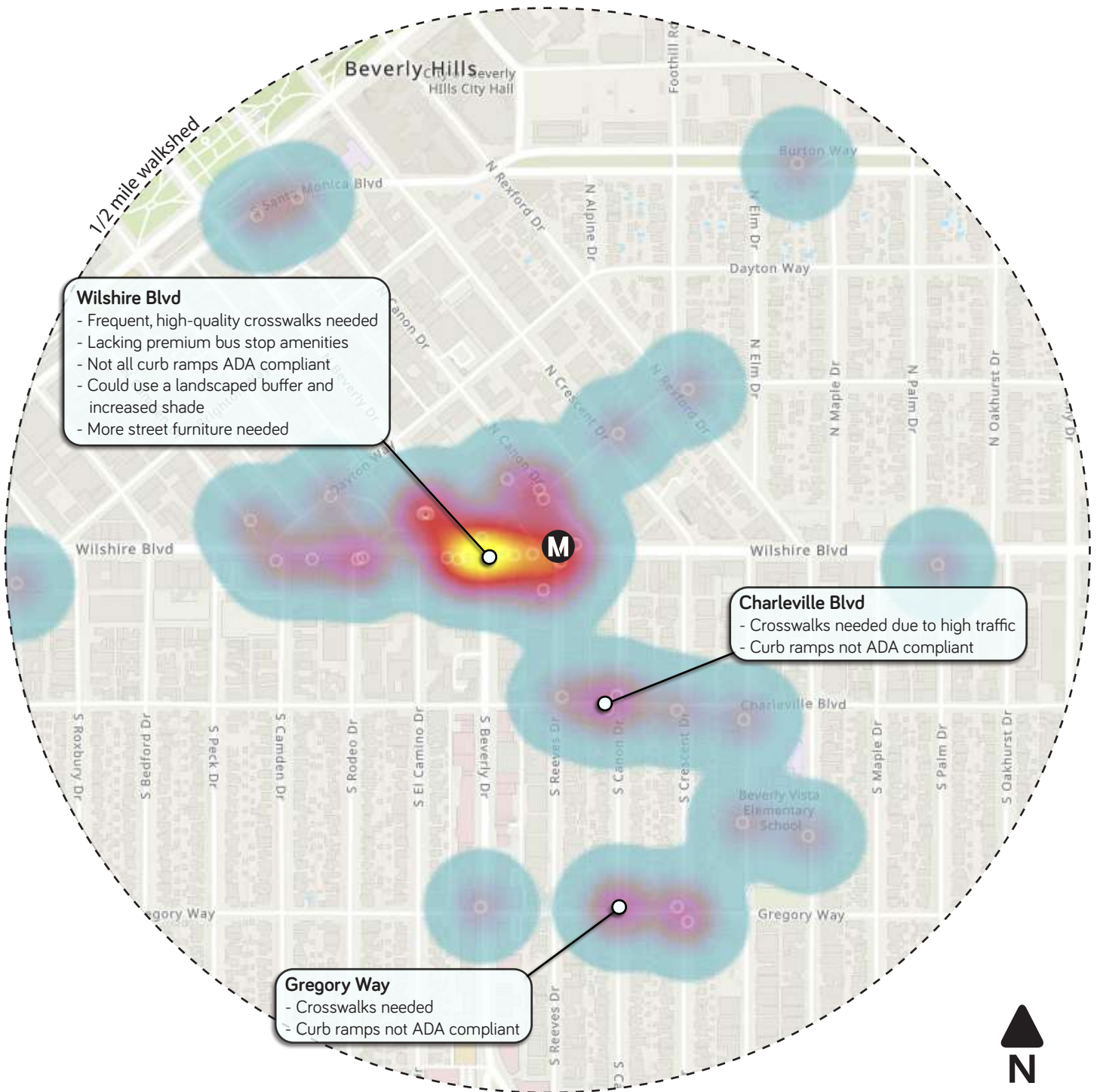
Total Observations - 57

- Sidewalks - 53% of observations
- Bike Conditions - 23% of observations
- Wayfinding - 19% of observations
- Maintenance - 5% of observation

Density of observations

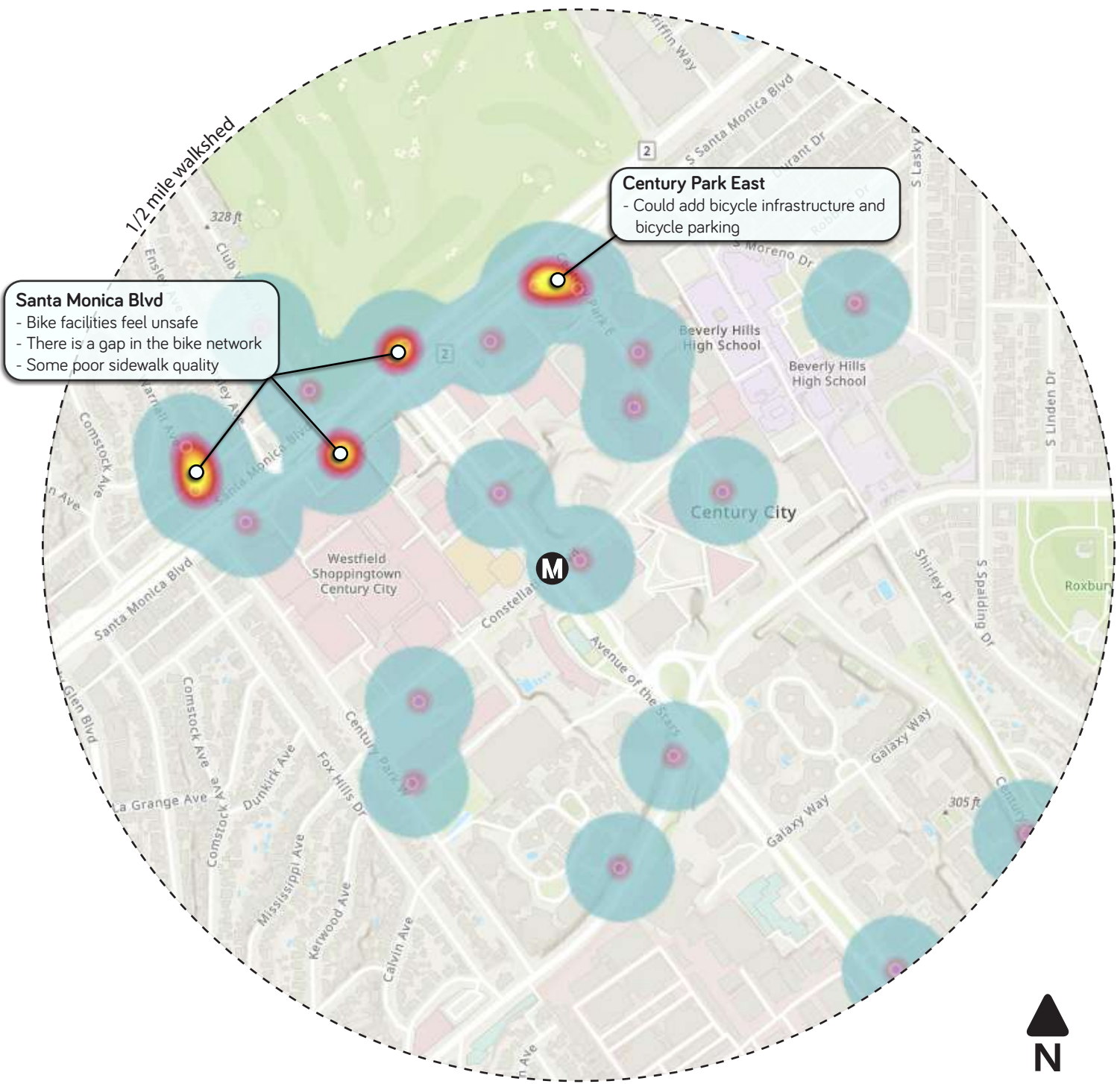


○ Key Observations



Total Observations - 46

- Crosswalks - 61% of observations
- Landscaping and Shade - 11% of observations
- Safety - 9% of observations
- Street Furniture - 9% of observations
- Bus Stop Enhancements - 4% of observations
- Traffic Speed - 4% of observations
- Lighting - 2% of observations

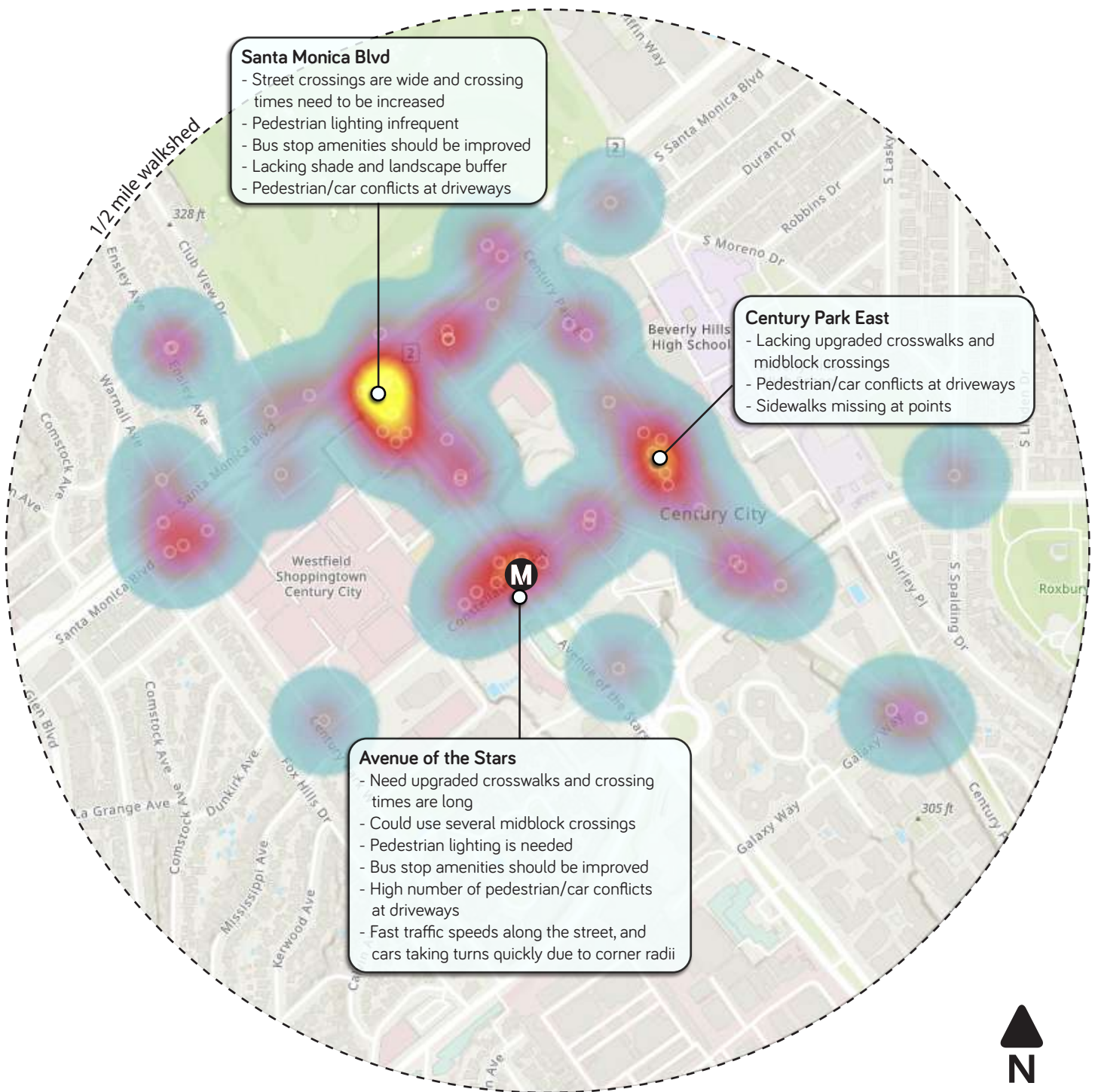


Total Observations - 29

- Sidewalks - 55% of observations
- Bike Conditions - 31% of observations
- Wayfinding - 10% of observations
- Maintenance - 4% of observations

Density of observations



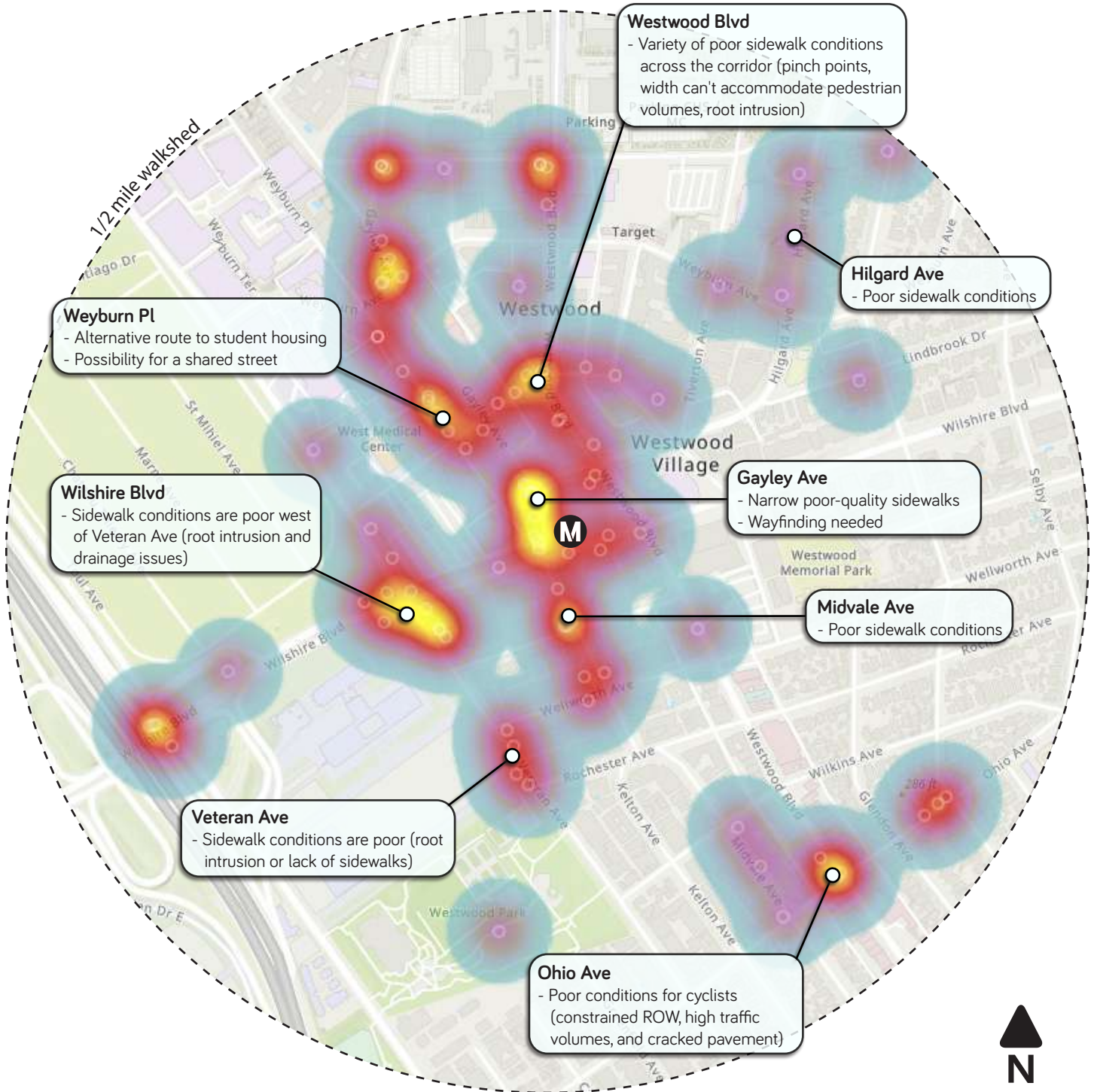


Total Observations - 56

- Crosswalks - 30% of observations
- Lighting - 23% of observations
- Bus Stop Enhancements - 18% of observations
- Safety - 18% of observations
- Landscaping and Shade - 7% of observations
- Traffic Speed - 2% of observations
- Public Art - 2% of observations

Density of observations



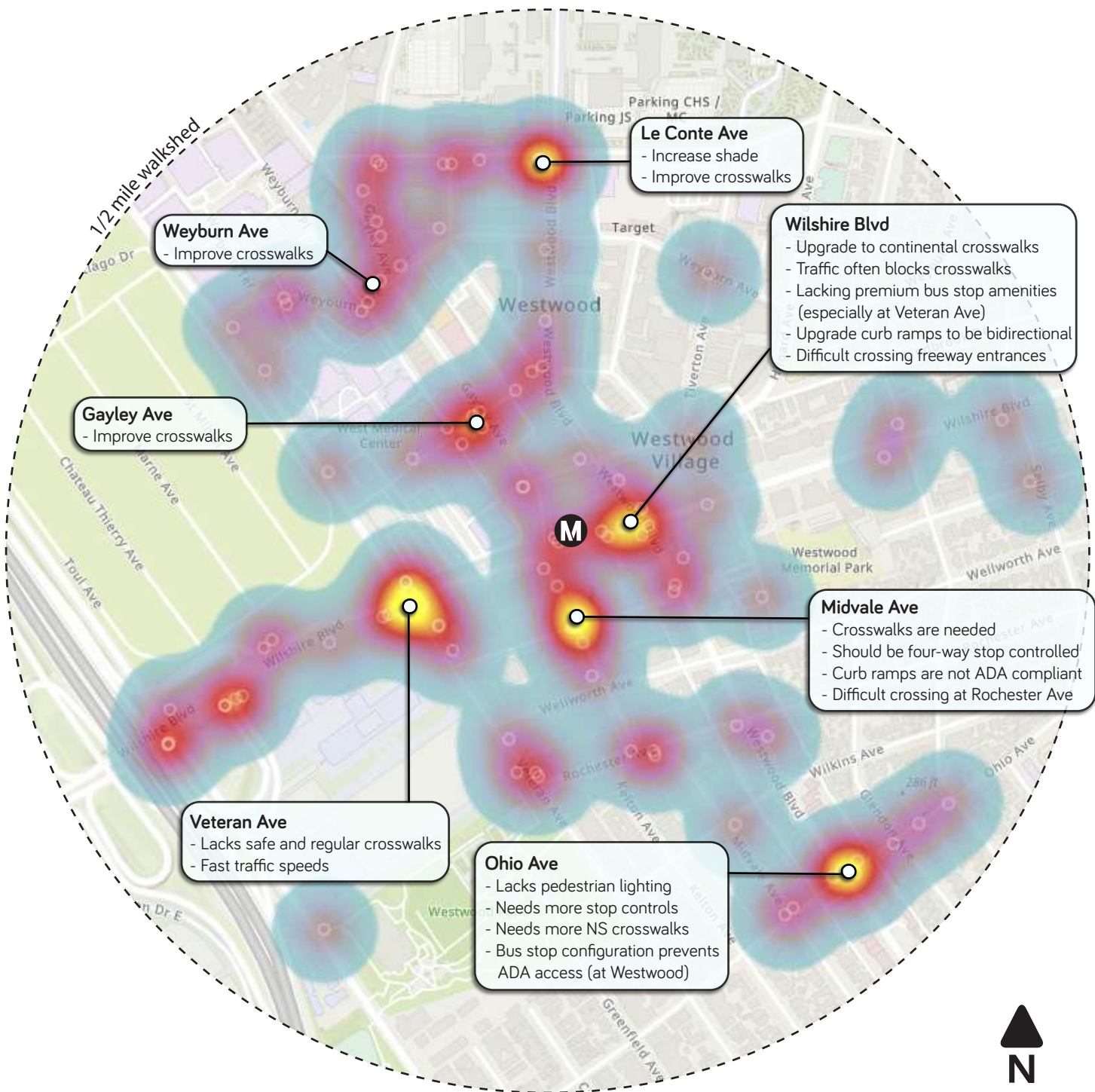


Total Observations - 96

- Sidewalks - 70% of observations
- Bike Conditions - 18% of observations
- Maintenance - 7% of observation
- Wayfinding - 5% of observations

Density of observations



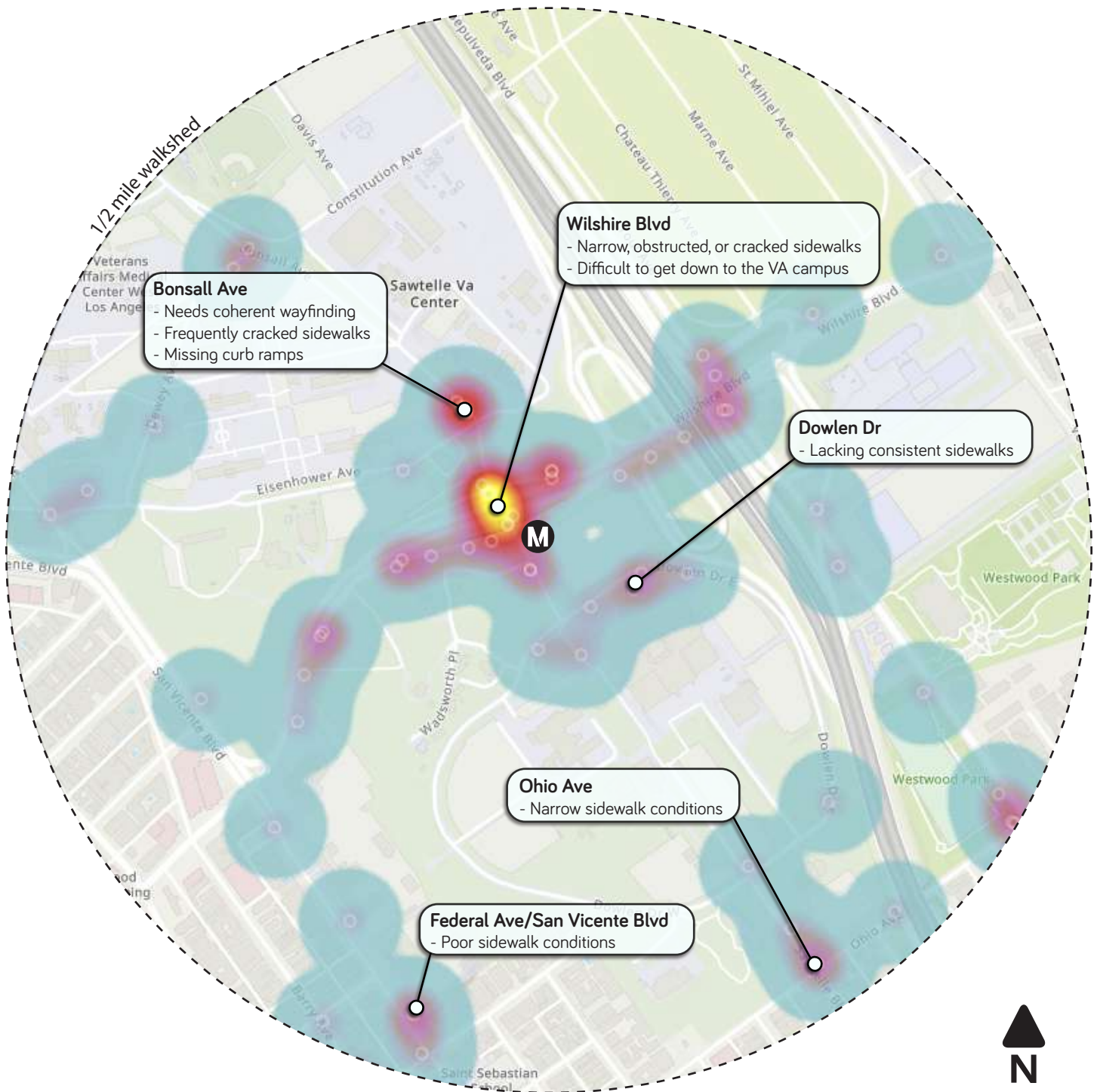


Total Observations - 111

- Crosswalks - 48% of observations
- Safety - 17% of observations
- Bus Stop Enhancements - 11% of observations
- Landscaping and Shade - 9% of observations
- Lighting - 6% of observations
- Street Furniture - 4% of observations
- Traffic Speed - 4% of observations
- Public Art - 1% of observations

Density of observations






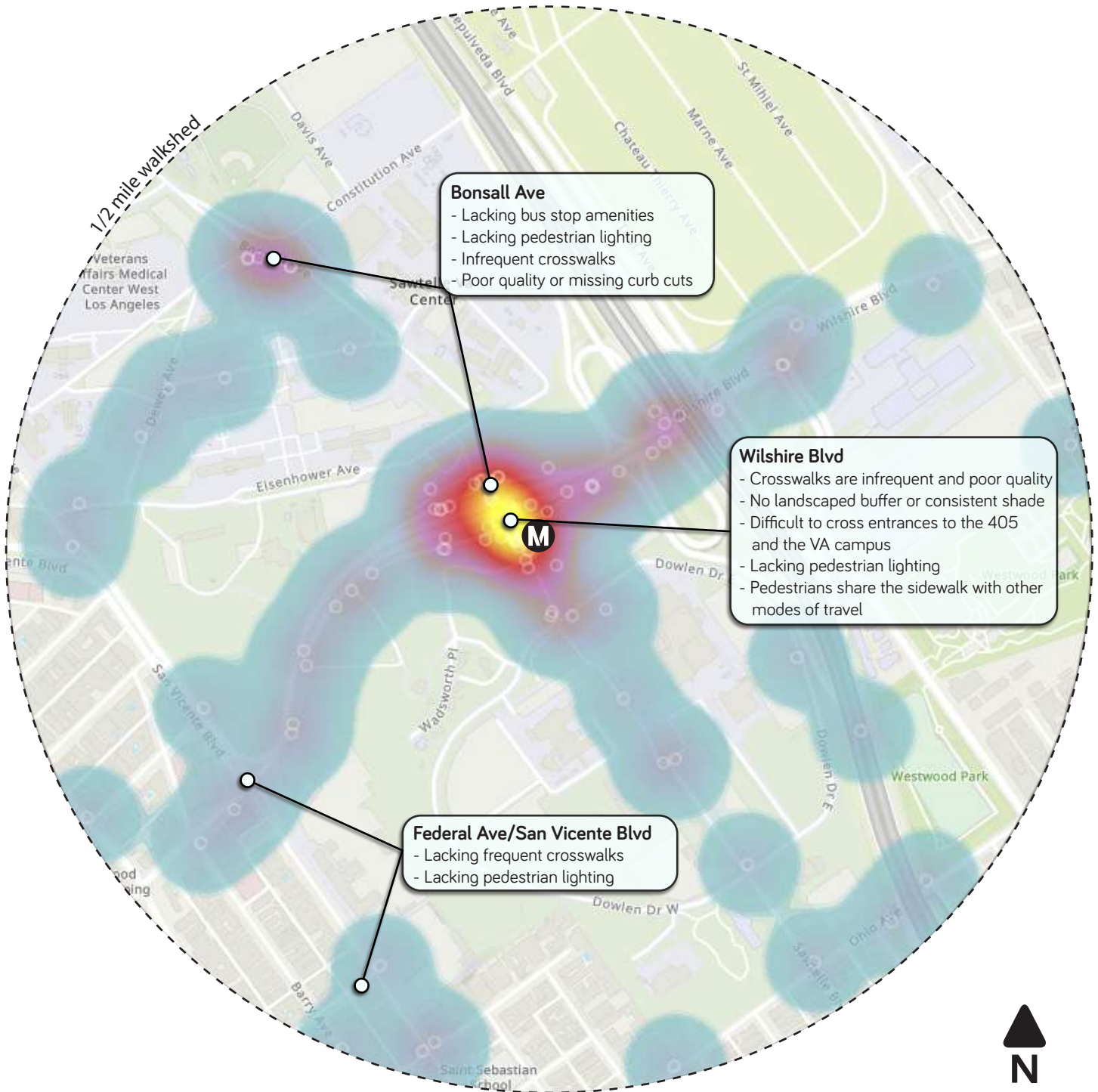
Total Observations - 67

- Sidewalks - 69% of observations
- Bike Conditions - 18% of observations
- Maintenance - 8% of observation
- Wayfinding - 5% of observations

Density of observations



 Key Observations



Total Observations - 100

- Crosswalks - 36% of observations
- Lighting - 25% of observations
- Safety - 21% of observations
- Landscaping and Shade - 10% of observations
- Bus Stop Enhancements - 4% of observations
- Traffic Speed - 2% of observations
- Public Art - 1% of observations

Density of observations



○ Key Observations

Next stop: connected communities.

PROJECT ORIGINS

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

Purple Line Extension Sections 2&3 First/Last Mile Plan, Project Origins

This document highlights the origin for each pedestrian and bicyclist improvement within a half-mile radius of each of the four Purple Line Extension Sections 2 & 3 station areas. Pedestrian and bicyclist improvements could have stemmed from a single source or multiple sources. The four unique sources are:

- Walk Audit Feedback
- Stakeholder Interviews
- Pop-Up Events
- Technical Analysis

Walk Audits are collaborative, field-based research activities wherein participants are asked to walk around future station areas (1/2-mile radius) and observe the built environment and its impacts on transit safety/comfort and connectivity. The observations are recorded on a tablet using Metro's FLM app; it geo-locates participants as they walk around. Walks Audit data is aggregated and analyzed, helping to inform FLM Plan project ideas. There were 66 auditors and a total of 462 observations at eight audits.

Stakeholder interviews were conducted toward the start of FLM Plan development to garner critical input from community leaders. Stakeholders include members from local city government, chambers of commerce, business improvement districts, community councils, advocacy groups, and institutional actors (e.g. Cedar Sinai Medical Center, UCLA), among others. Thirteen interviews were conducted with a total of 21 stakeholders

Pop-Up events were hosted at farmers markets and other community events to gather public input on FLM improvements for each of the four stations. They included an interactive activity: passers-by were asked to analyze large-format maps and provide feedback on FLM improvements along station area streets and at intersections. Surveys were also conducted at the Pop-Up events or individuals were given a hyperlink to later complete the online survey on their own. There were 7 Pop-Up events and a total of 443 survey respondents.

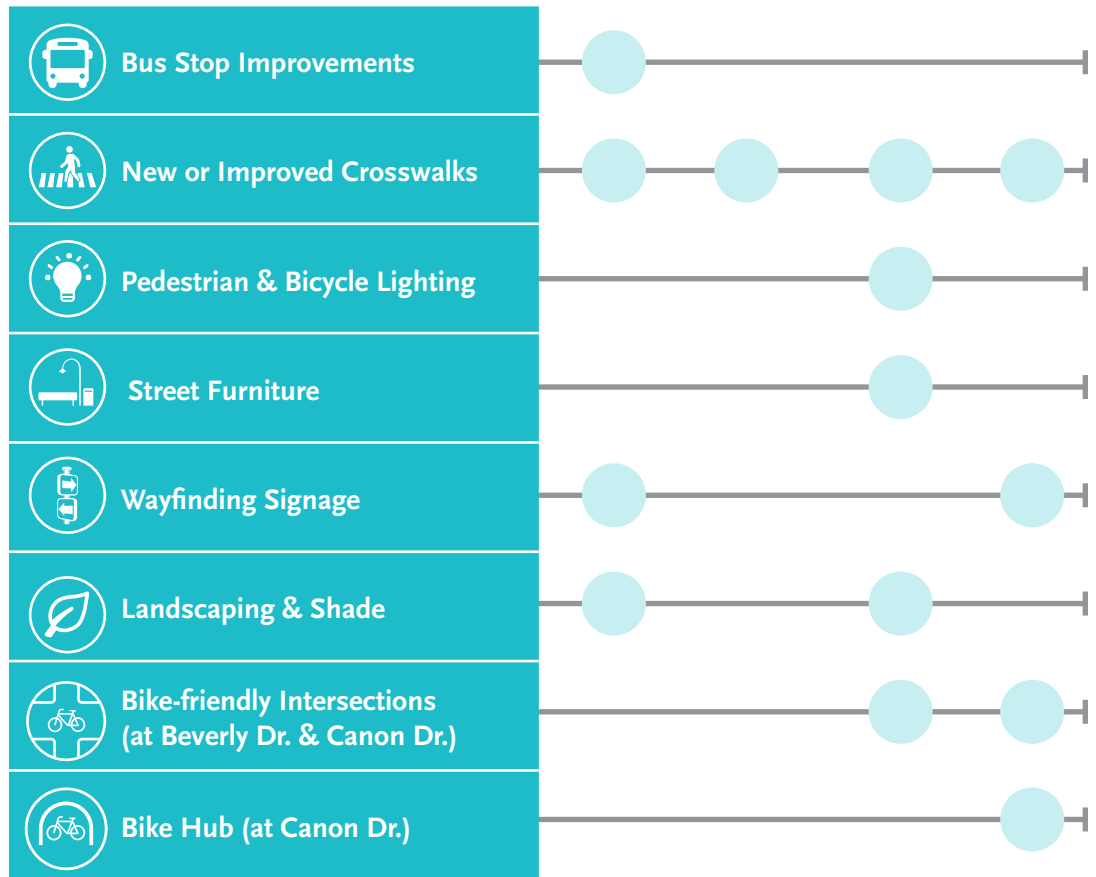
Technical Analysis was administered by planning professionals to highlight specific improvements that would enhance the safety and ease of walking and biking within the station areas. Improvements chosen through technical analysis either echo the public's input on necessary improvements, or fill in the active transportation network gaps that the public may not have considered initially. Technical analysis improvements align with good planning practices.

PROJECT ORIGINS WILSHIRE/RODEO

Wilshire Blvd.

Wilshire Blvd. has direct station access. It is a major east/west thoroughfare for cars and transit. The street has proposed shared bus/bicycle lanes via the Beverly Hills Complete Streets (BHCS) plan. There is high pedestrian usage, given its connection to the Rodeo Dr. shopping district and its commercial and retail activity.

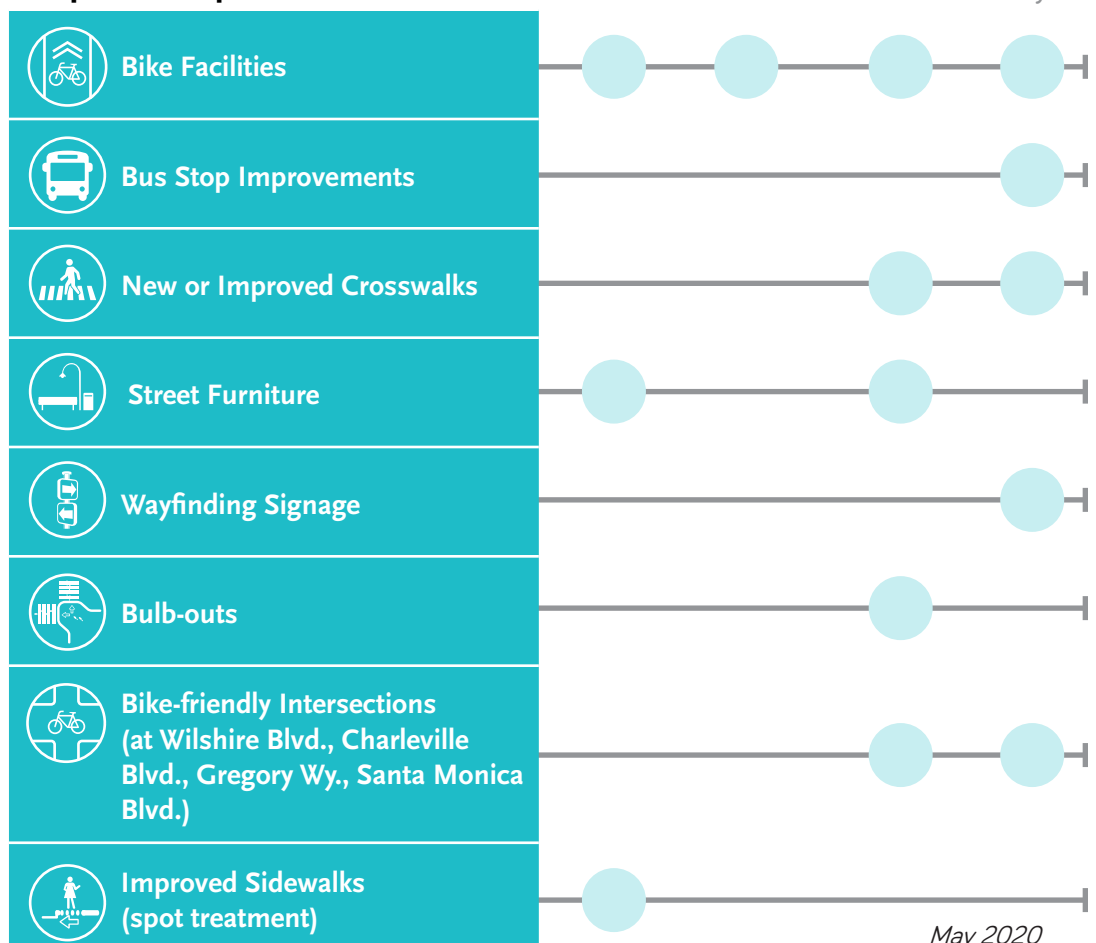
Proposed Improvements



Beverly Dr.

Beverly Dr is a key north/south corridor. Bicycle infrastructure is proposed under the BHCS plan. It connects to Beverly Canon and Beverly Gardens Parks and has many employment, commercial and tourist destinations.

Proposed Improvements

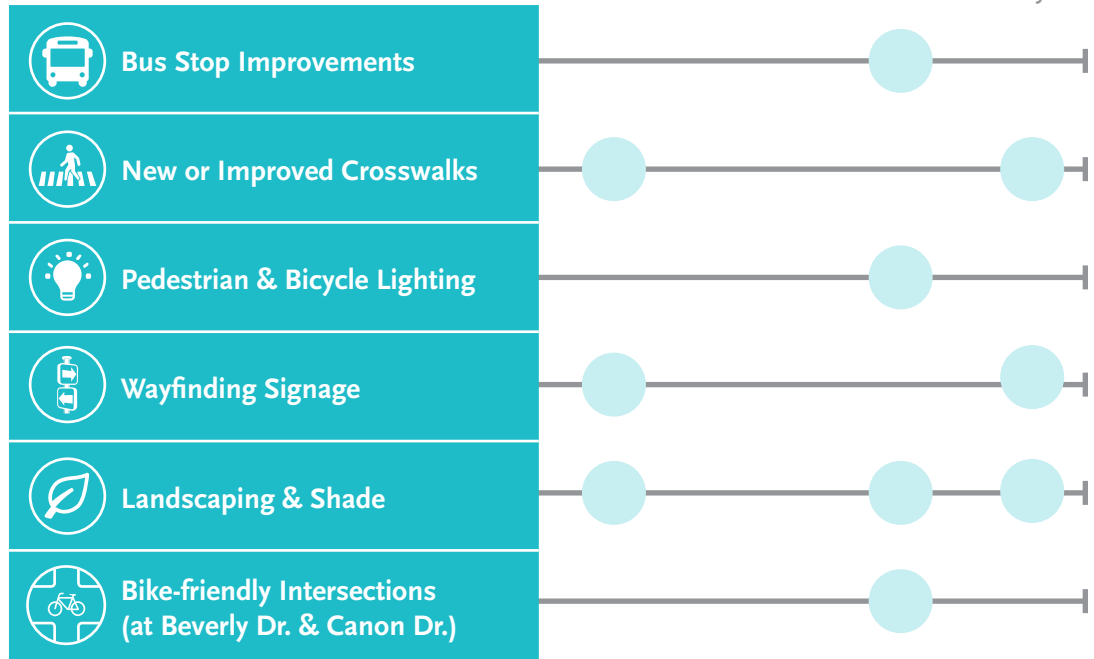


WILSHIRE/RODEO

N. Santa Monica Blvd.

Santa Monica Blvd is a major east/west thoroughfare that is located in proximity to several major employment and tourist destinations. It has existing high visibility green bike lanes from western to eastern city limits. The street connects to Beverly Hills City Hall, the Civic Center, and Beverly Gardens Park.

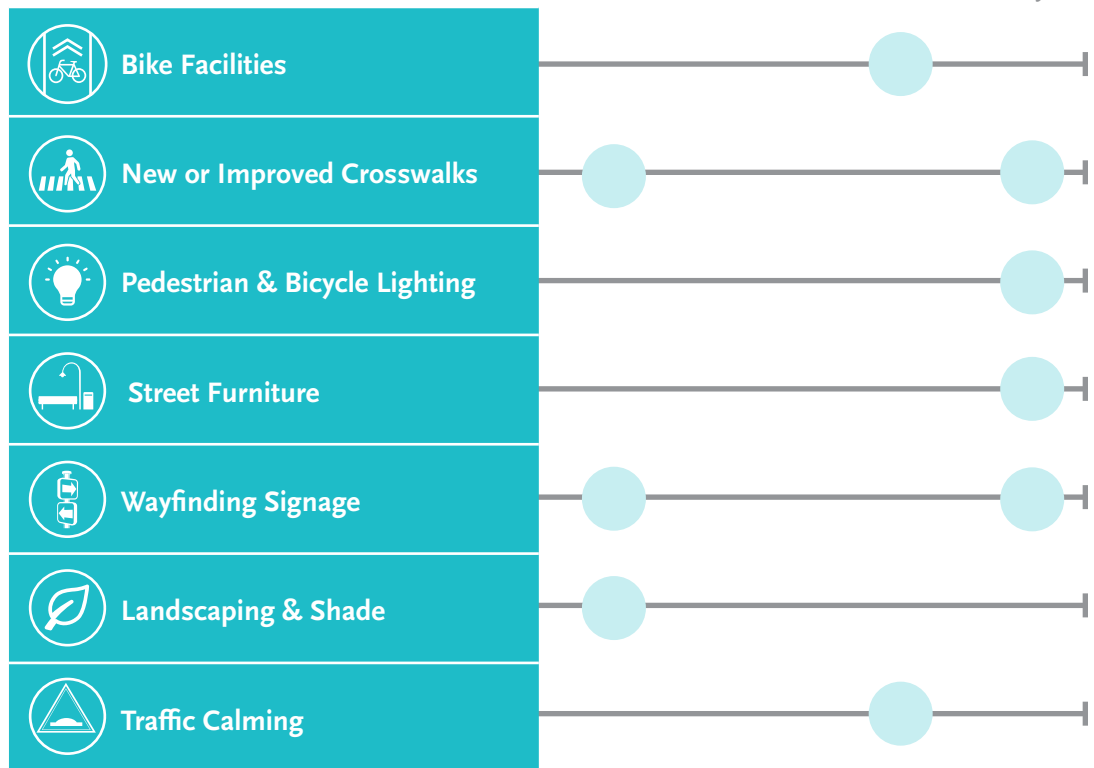
Proposed Improvements



S. Santa Monica Blvd.

Primarily commercial in character, this street is an important corridor through the Business Triangle. The City has a proposed Bike Boulevard on this street.

Proposed Improvements

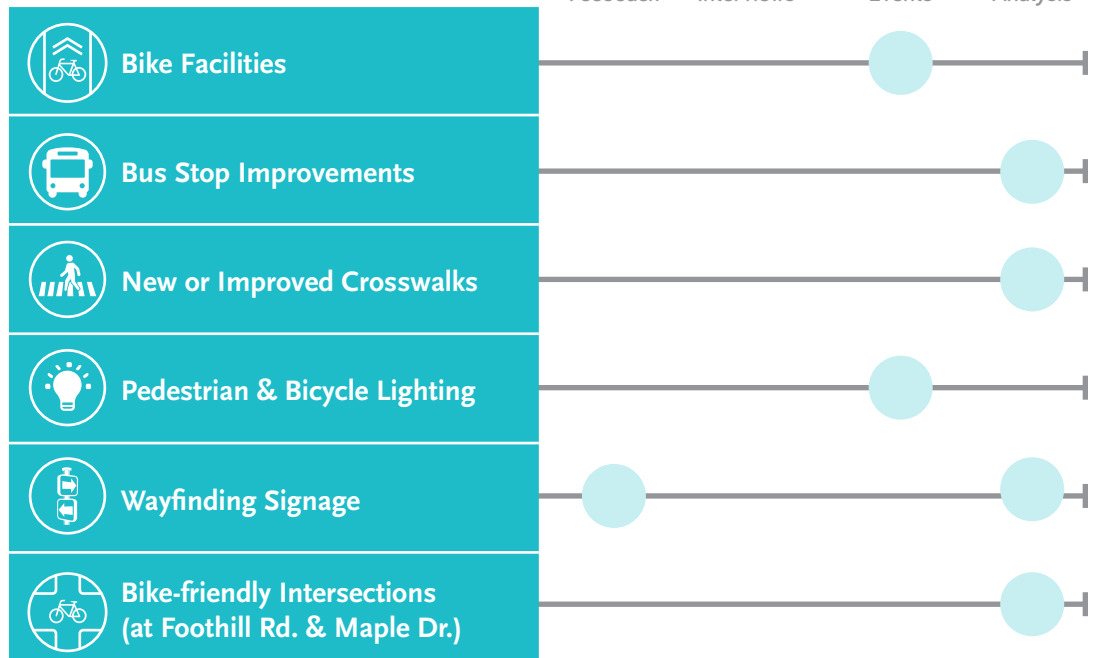


WILSHIRE/RODEO

Burton Way

Burton Wy. has existing bike lanes with new upgrades proposed in the BHCS plan. It also is used by Metro as a bus route. At its western terminus, it connects to Beverly Hills City Hall and Civic Center. It is a wide street with a large landscaped median.

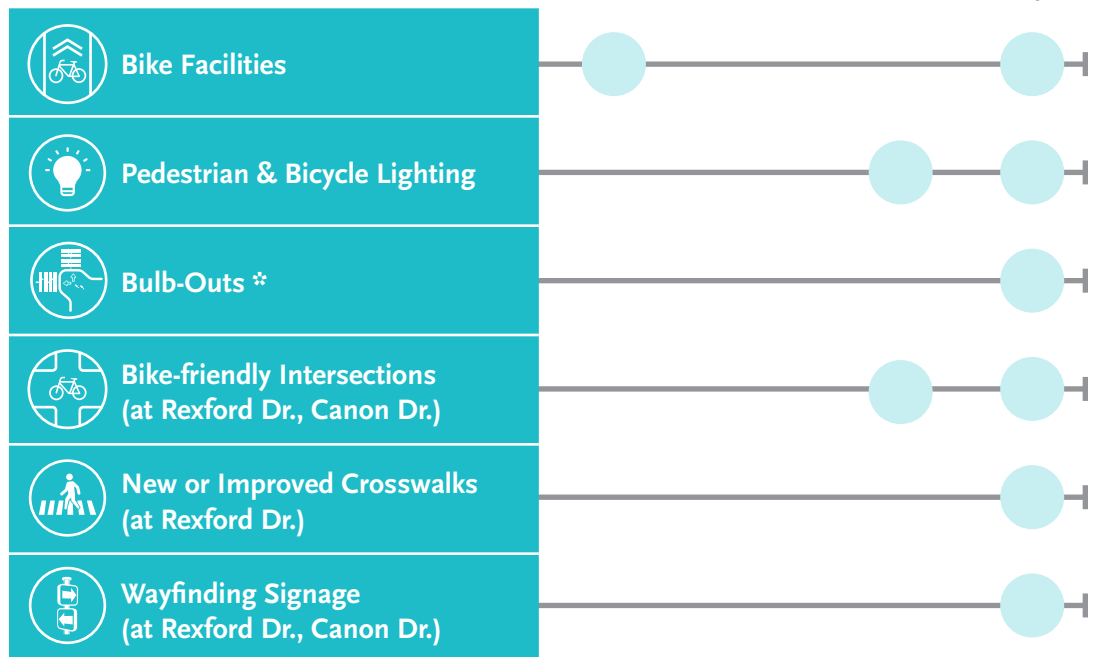
Proposed Improvements



Clifton Way

Clifton Way has a proposed bike boulevard in the BHCS plan. It is a lower stress east/west alternative to Wilshire Blvd. and is residential in character.

Proposed Improvements

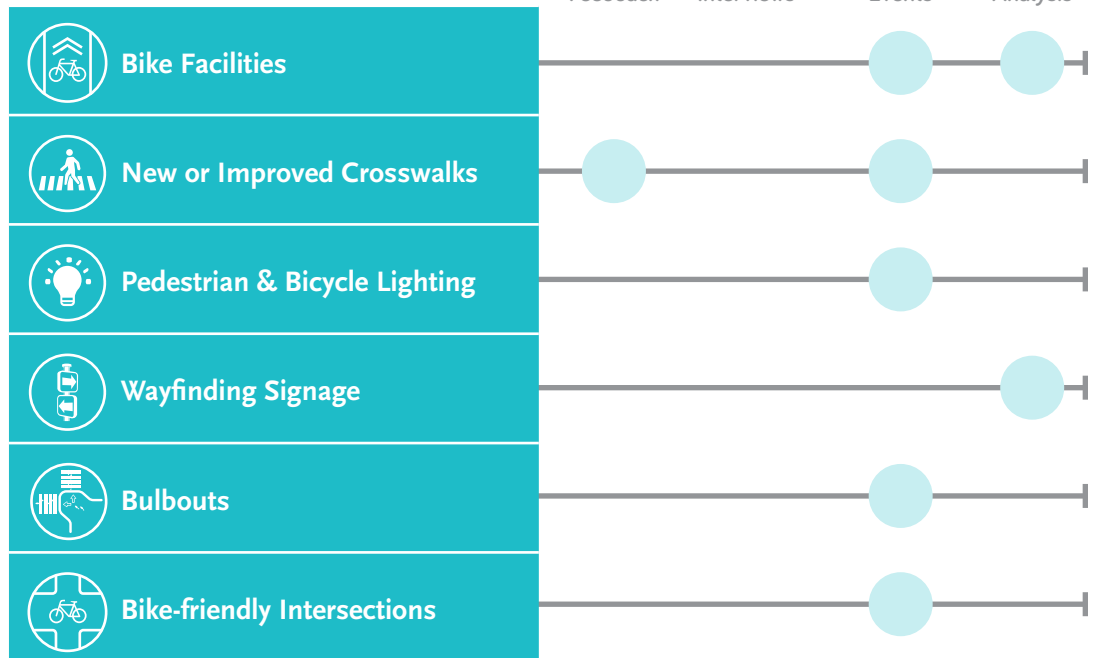


WILSHIRE/RODEO

Charleville Blvd.

Charleville Blvd. has proposed bicycle infrastructure under the BHCS plan. It offers a lower stress east/west alternative to Wilshire Blvd. and connects to several schools. The street is residential in character.

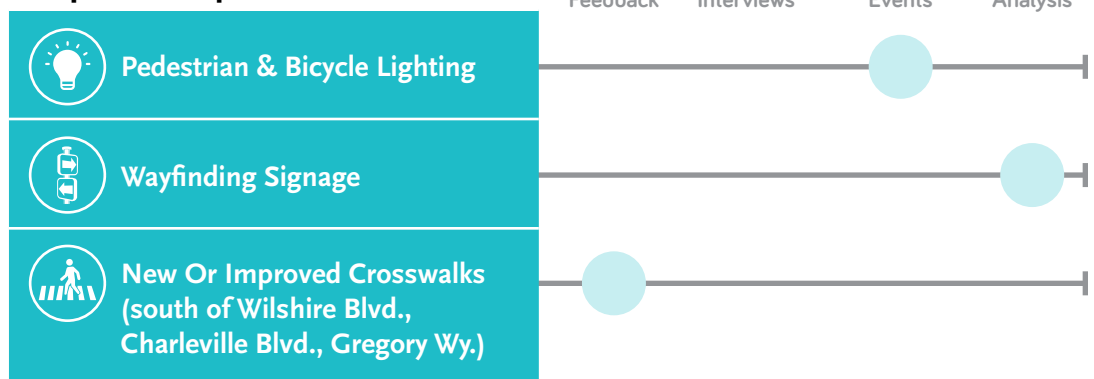
Proposed Improvements



Rodeo Dr.

Rodeo Dr. is a major draw for locals and tourists alike. It has many employment and commercial destinations, and connects to Beverly Gardens Park to the north.

Proposed Improvements



Reeves Dr.

Reeves Dr. connects directly to the southern station portal. It has a proposed bike boulevard in the BHCS plan and connects to destinations in the Business Triangle to the north.

Proposed Improvements

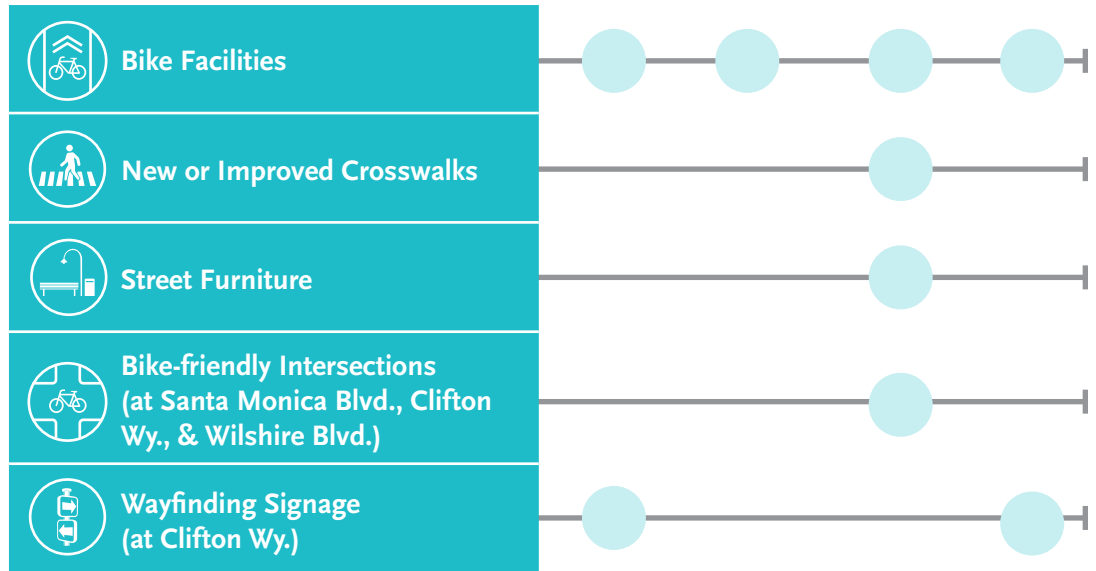


WILSHIRE/RODEO

Canon Dr.

Canon Dr. has proposed bicycle infrastructure under the BHCS plan, depending on the future location of the northern station portal. It is also a major downtown corridor with commercial and employment destinations, and connects to the southern station portal.

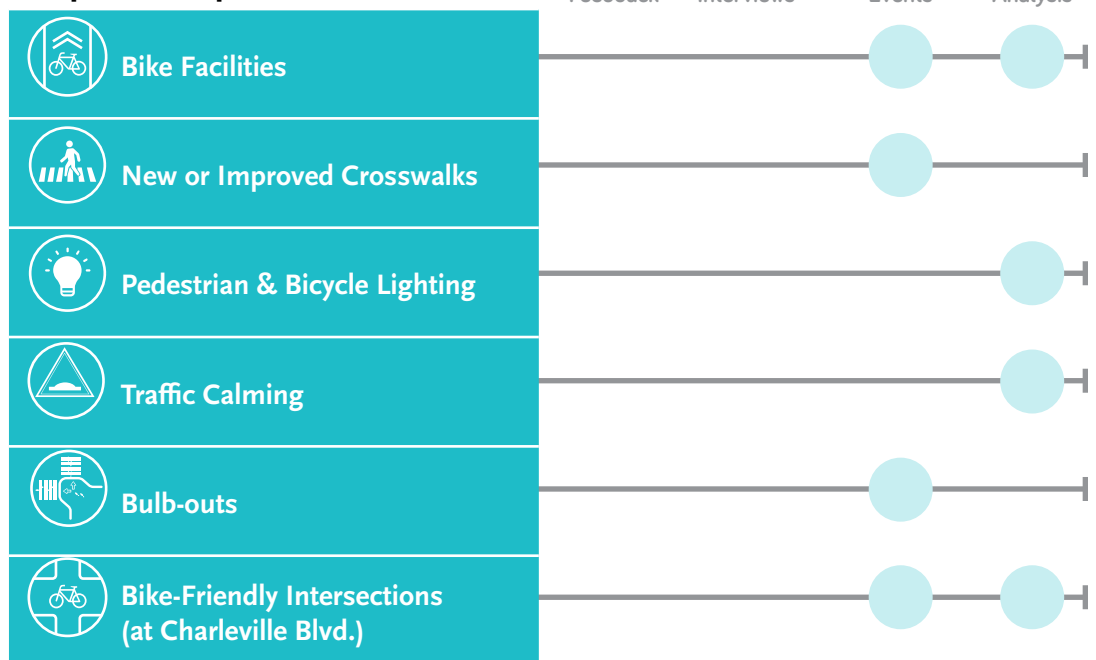
Proposed Improvements



Crescent Dr.

Crescent Dr. has existing and proposed sharrows and proposed bike lanes in the BHCS plan. It is residential south of Wilshire Blvd. and both residential and commercial north of Wilshire Blvd., providing access to the Civic Center.

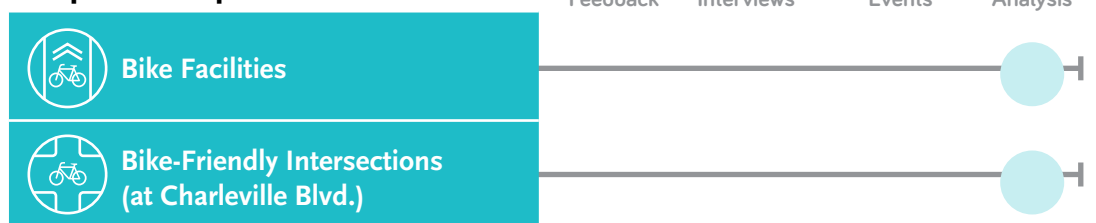
Proposed Improvements



Roxbury Dr.

Roxbury Dr. provides a connection to Roxbury Park, the bike lanes on N. Santa Monica Blvd. and to the recommended bikeway on Charleville Blvd.

Proposed Improvements

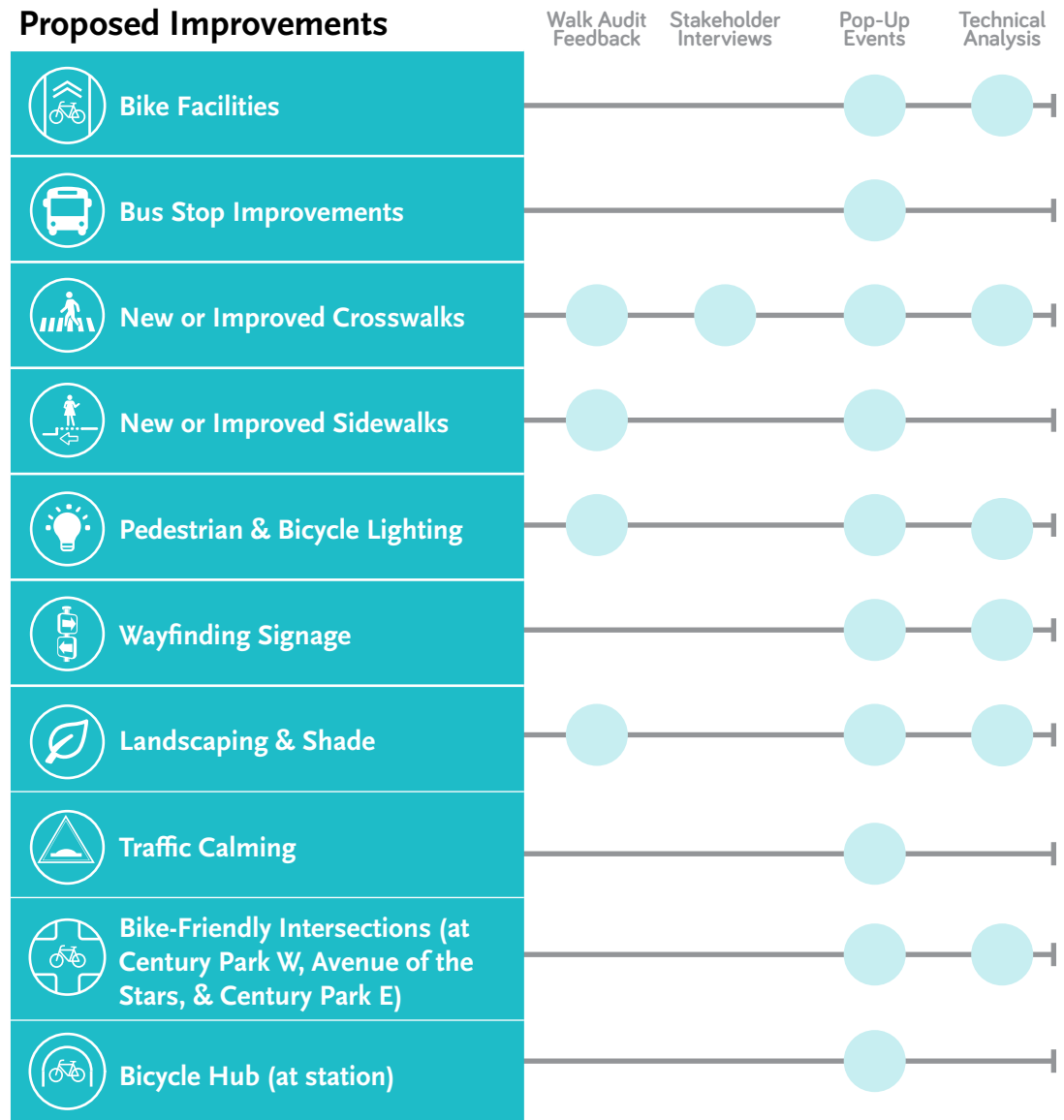


PROJECT ORIGINS CENTURY CITY/ CONSTELLATION

Constellation Blvd.

Constellation Blvd. provides direct access to the station. It connects to the nearby Westfield Mall and office buildings and is wide and busy.

Proposed Improvements

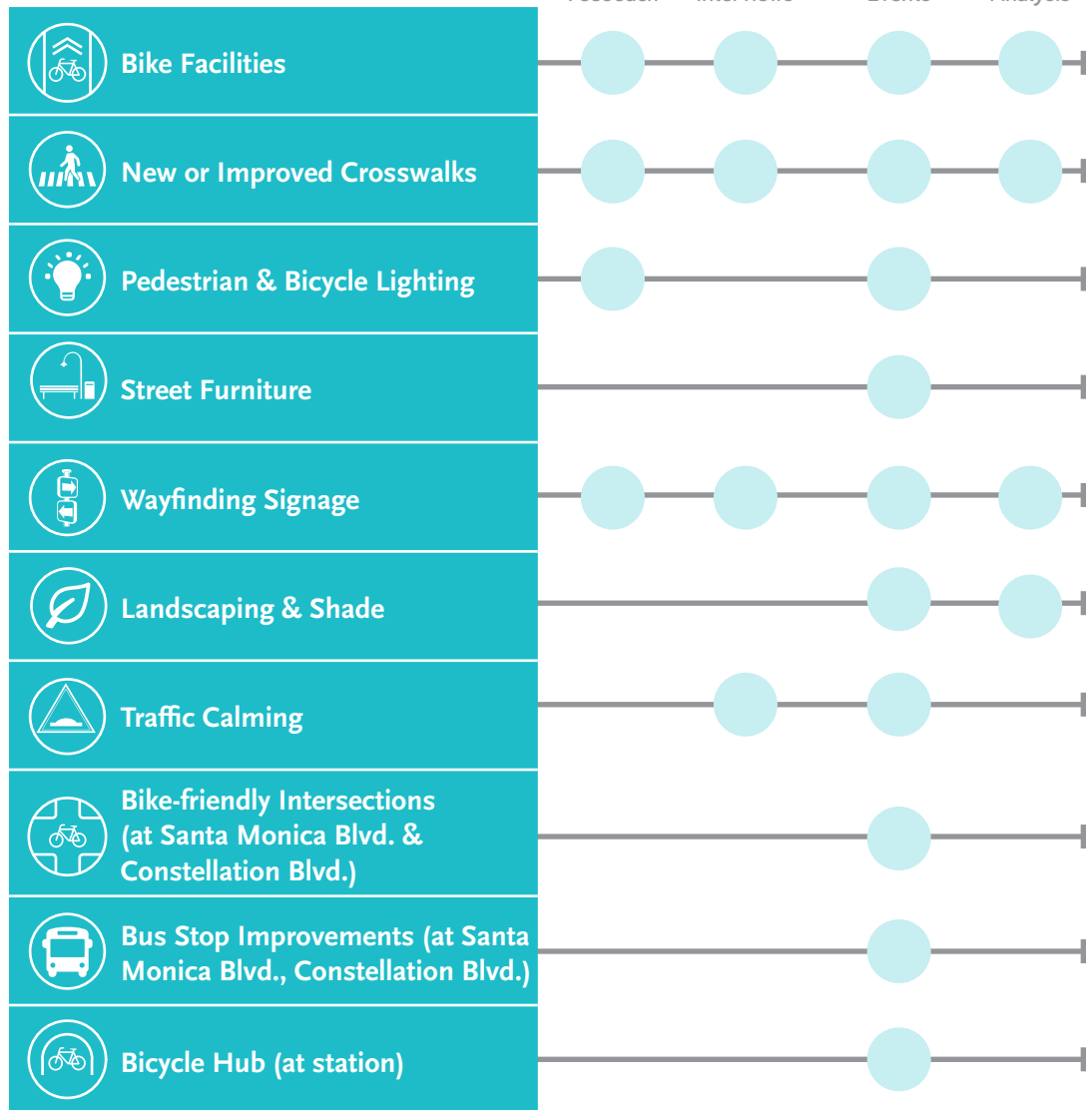


CENTURY CITY/CONSTELLATION

Avenue of the Stars

Avenue of the Stars connects directly to the station. It has proposed bicycle infrastructure as per the LA City Mobility Plan 2035 (LACMP). It connects to Westfield Mall and a number of nearby office buildings.

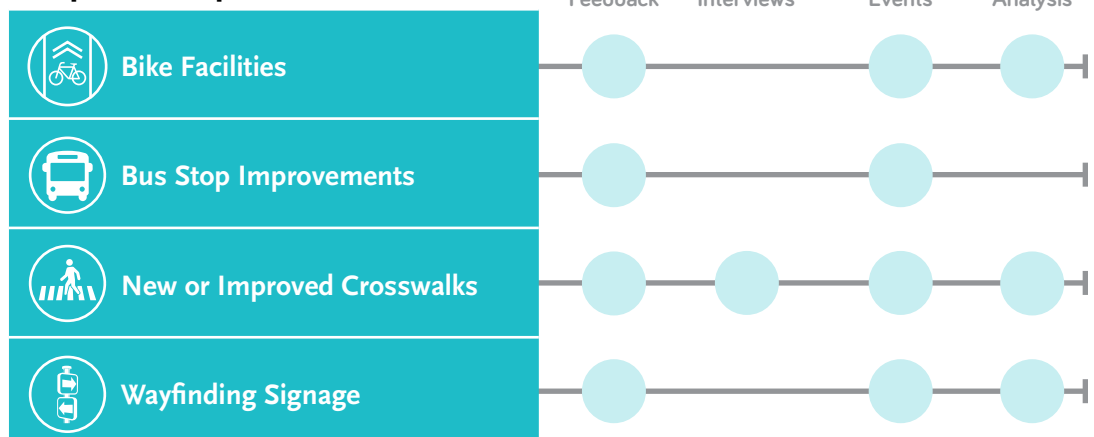
Proposed Improvements



Santa Monica Blvd.

Santa Monica Blvd. is a major east/west thoroughfare for vehicles and transit. It has proposed bicycle infrastructure under the LACMP. It connects to Westfield Mall and the Los Angeles Country Club, among other destinations regionally. The street is wide with a wide median in many areas.

Proposed Improvements

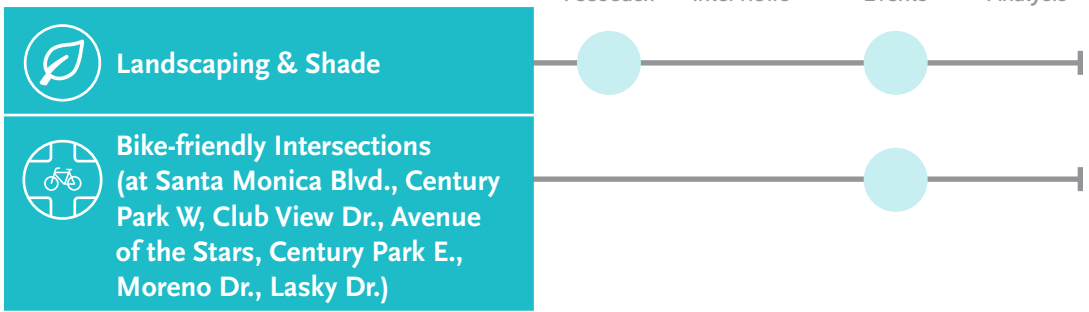


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CENTURY CITY/CONSTELLATION

Santa Monica Blvd. (cont'd)

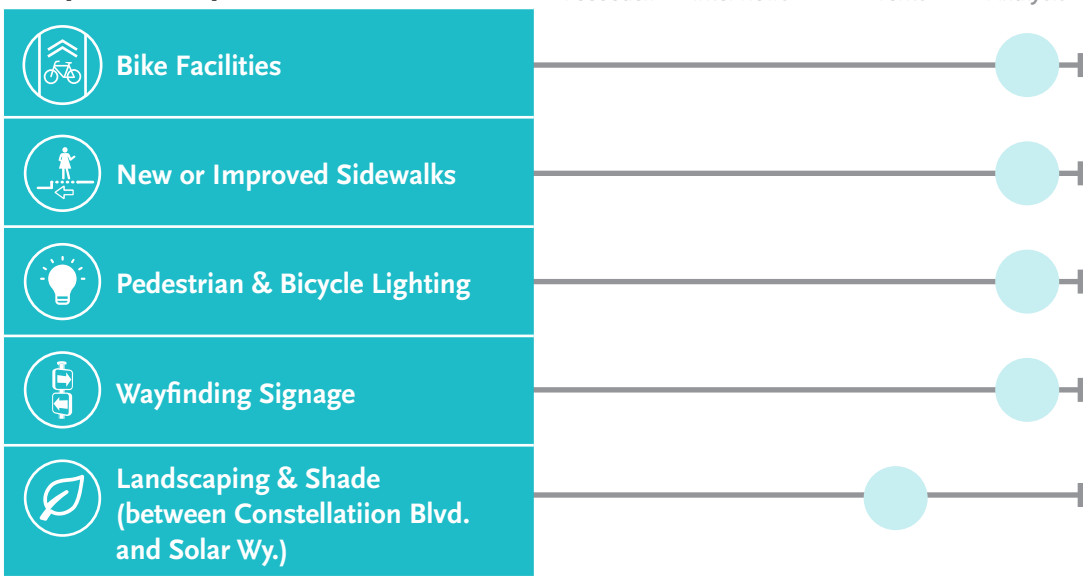
Proposed Improvements



Solar Way

Solar Wy. offers an alternative path to the station from the western edge of the station area. It connects to a number of parking structures and has a smaller right-of-way than other streets in the area.

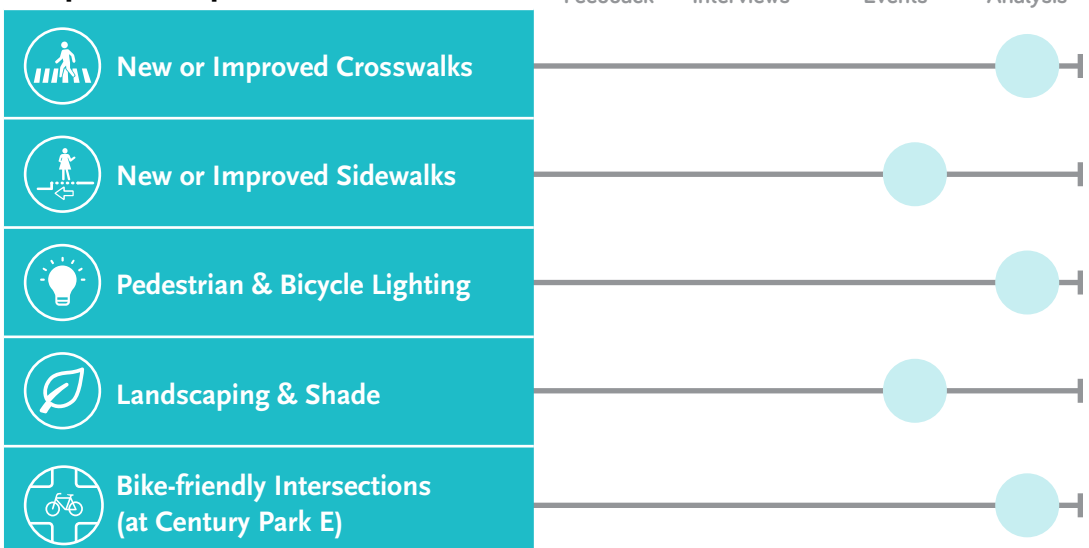
Proposed Improvements



Galaxy Way

Galaxy Wy. is a short street that connects Century Park E with Fox Studios and two large housing developments.

Proposed Improvements

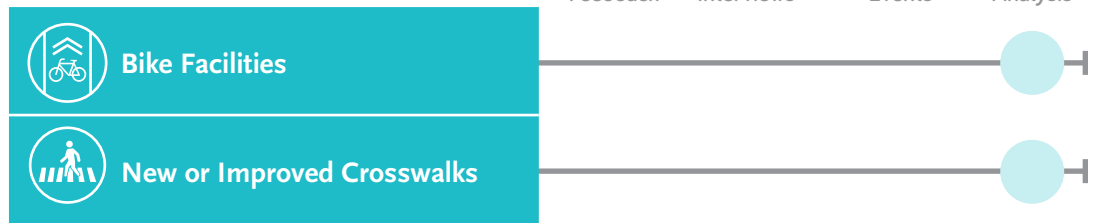


CENTURY CITY/CONSTELLATION

Warnall Ave.

Warnall Ave. has proposed bicycle infrastructure in the LACMP. There is a complex change in grade between the Westfield Mall and Warnall Ave across Santa Monica Blvd., highlighting a need for an enhanced bicycle intersection. With a possible enhanced intersection at Santa Monica Blvd., this could be a connector for the residences in the northwest quadrant of the station area.

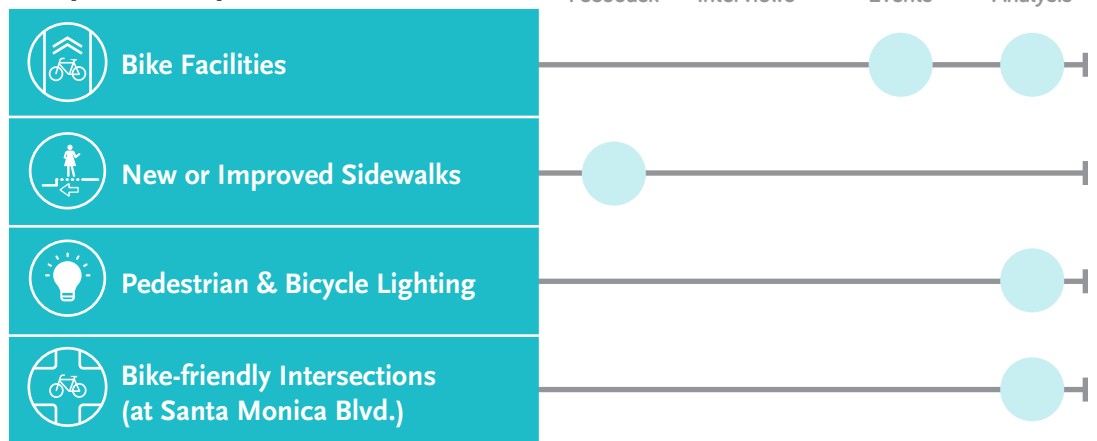
Proposed Improvements



Club View Dr.

Club View Dr. has proposed bicycle infrastructure via LACMP. There is a complex change in grade between the Westfield Mall and Club View Dr. across Santa Monica Blvd., highlighting a need for an enhanced bicycle intersection. With a possible enhanced intersection at Santa Monica Blvd., this could be a connector for the residences in the northwest quadrant of the station area.

Proposed Improvements

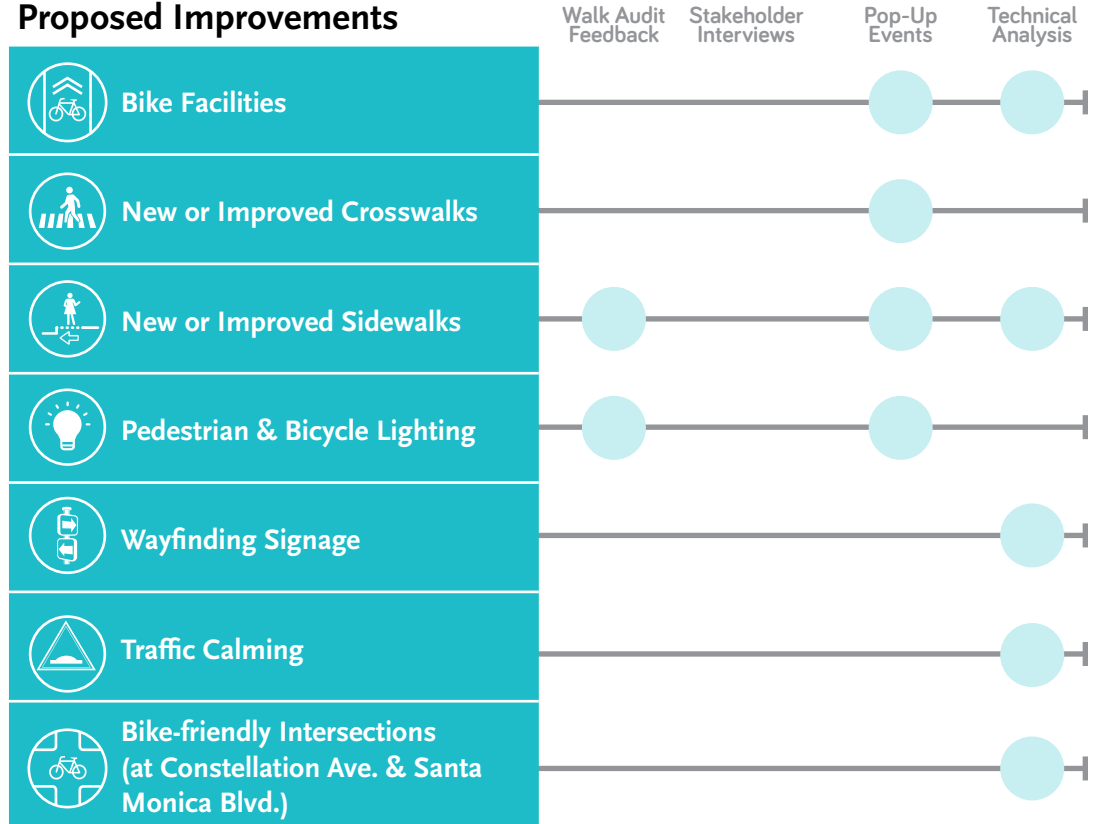


CENTURY CITY/CONSTELLATION

Century Park W

Century Park W is a significant connector between Santa Monica Blvd. and Olympic Blvd. It has LA Metro and other municipal transit lines operating along its length. It connects to Westfield Mall and is a wide and busy street.

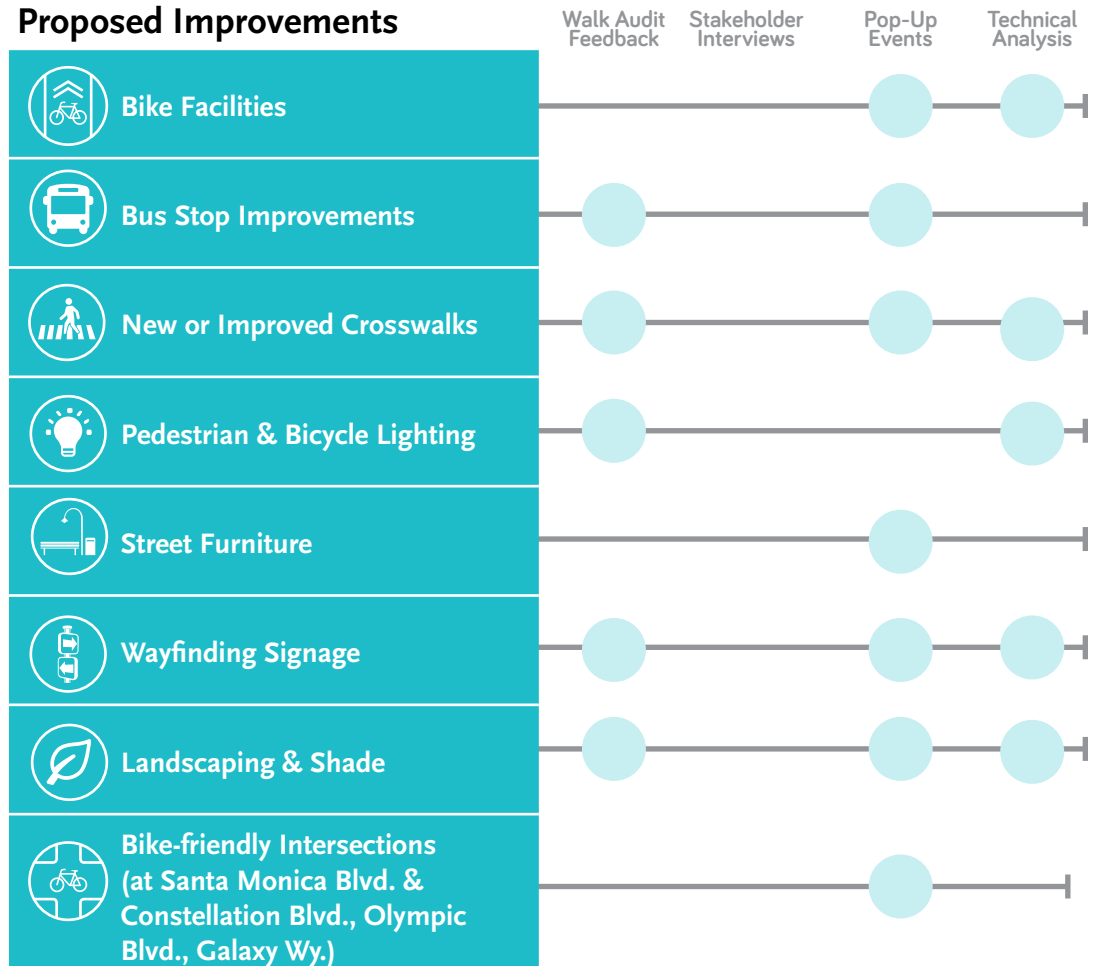
Proposed Improvements



Century Park E

Century Park E is a significant connector between Santa Monica Blvd. and Pico Blvd. It has LA Metro and other municipal transit lines operating along its length. It connects to many nearby office buildings and is a wide and busy street.

Proposed Improvements

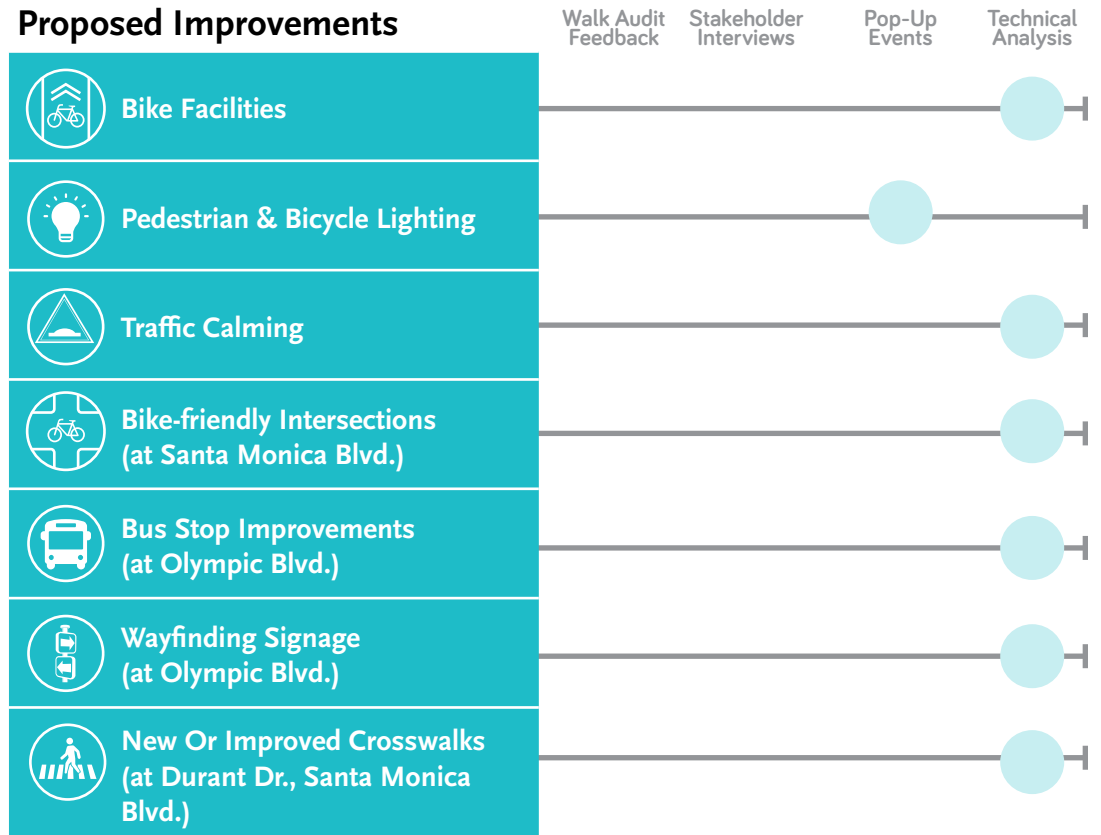


CENTURY CITY/CONSTELLATION

Moreno Dr./ Spaulding Dr.

Moreno Dr. offers a connection to Beverly Hills High School. It offers an alternative route through the residential area between Santa Monica Blvd. and Olympic Blvd.

Proposed Improvements

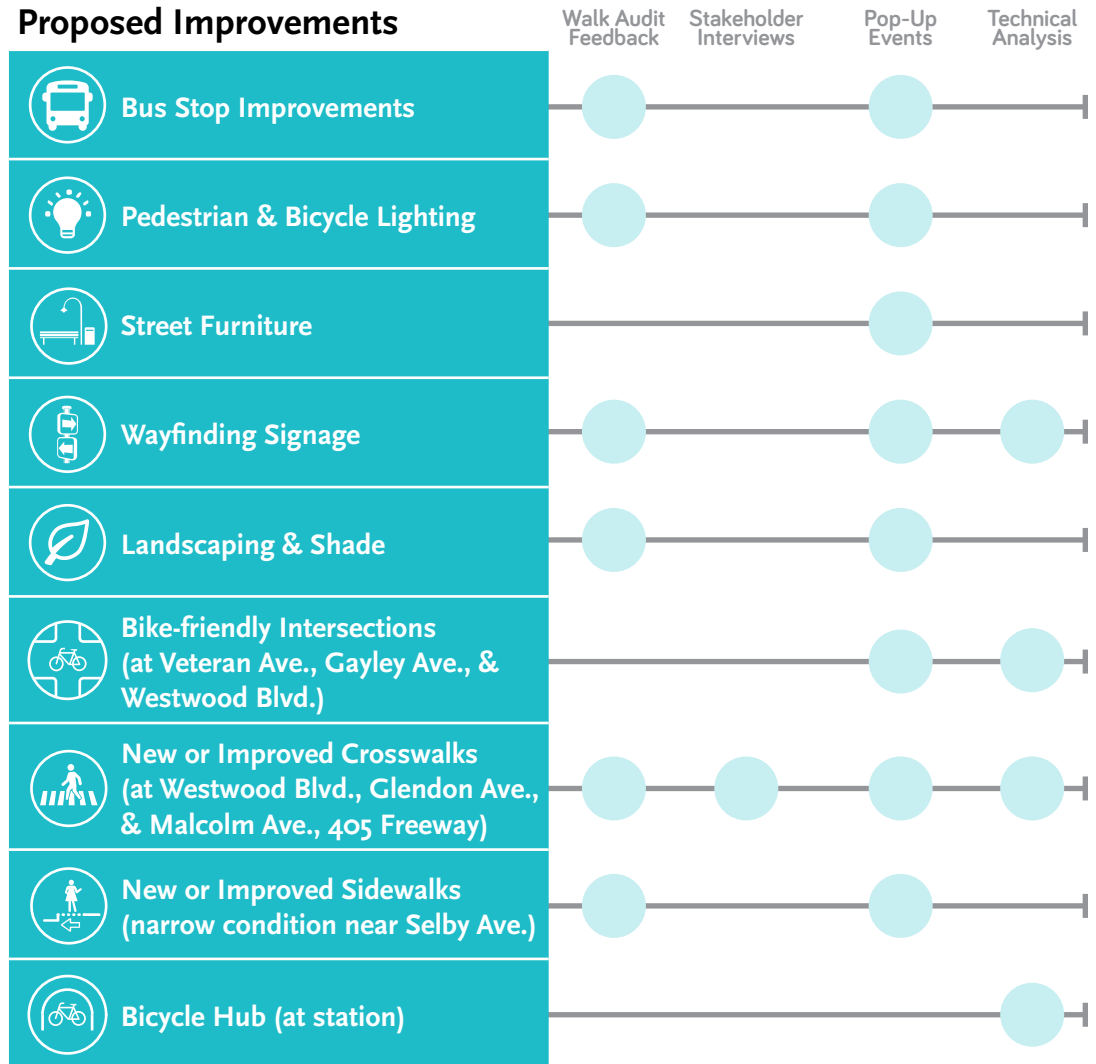


PROJECT ORIGINS WESTWOOD/UCLA

Wilshire Blvd.

Wilshire Blvd. has direct station access. It is a major east/west thoroughfare for cars and transit. The street has proposed bicycle infrastructure via the Los Angeles City Mobility Plan (LACMP) 2035, however introducing a safe and protected bicycle facility here will be difficult. Alternative routes for people riding bikes may be preferable. There is high pedestrian usage, given its connection to UCLA, the Hammer Museum and Westwood Village.

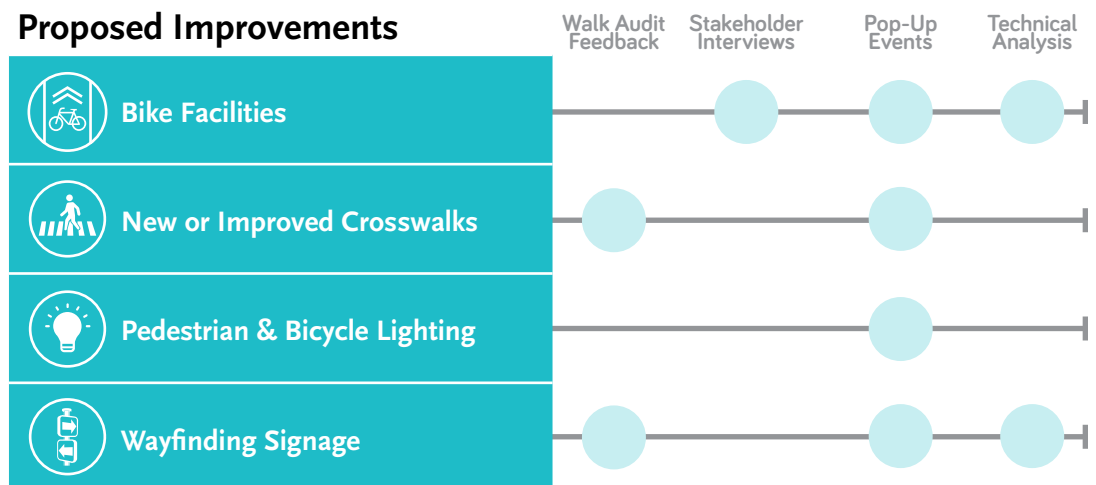
Proposed Improvements



Gayley Ave.

Gayley Ave. is a significant north/south street in the Westwood Village area and connects directly to the station. The street has existing and proposed bicycle infrastructure via the LACMP 2035 and UCLA plan. It connects to retail and commercial destinations in Westwood Village, Ronald Reagan UCLA Medical Center, and to UCLA north of the station area.

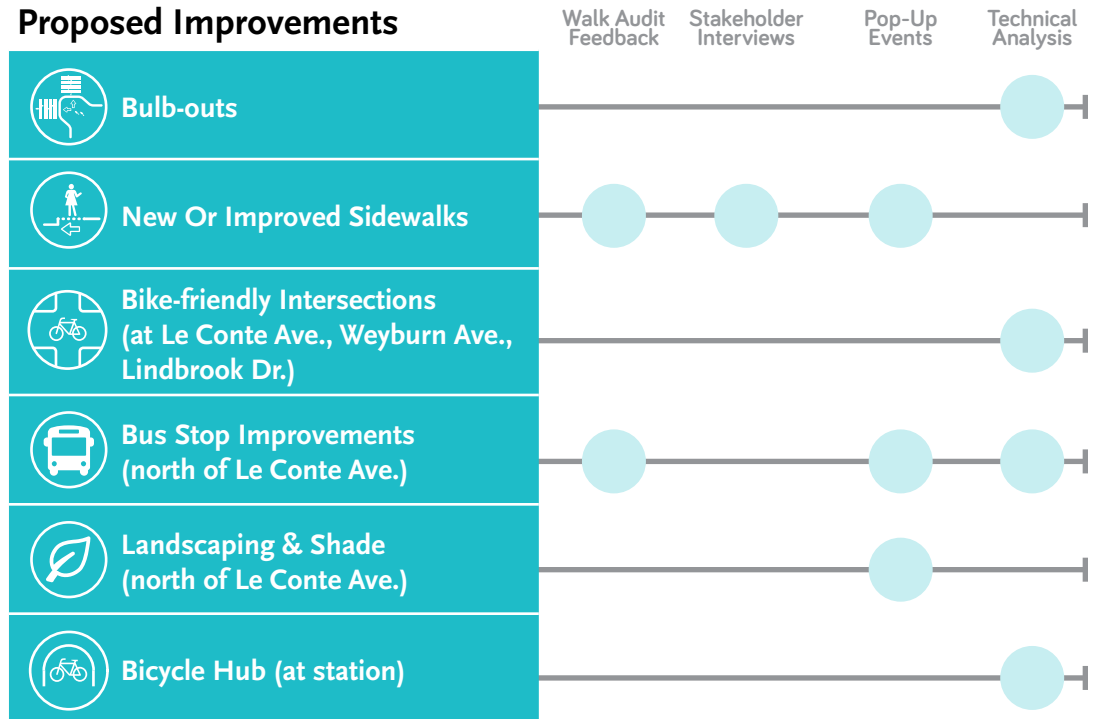
Proposed Improvements



WESTWOOD/UCLA

Gayley Ave. (cont'd)

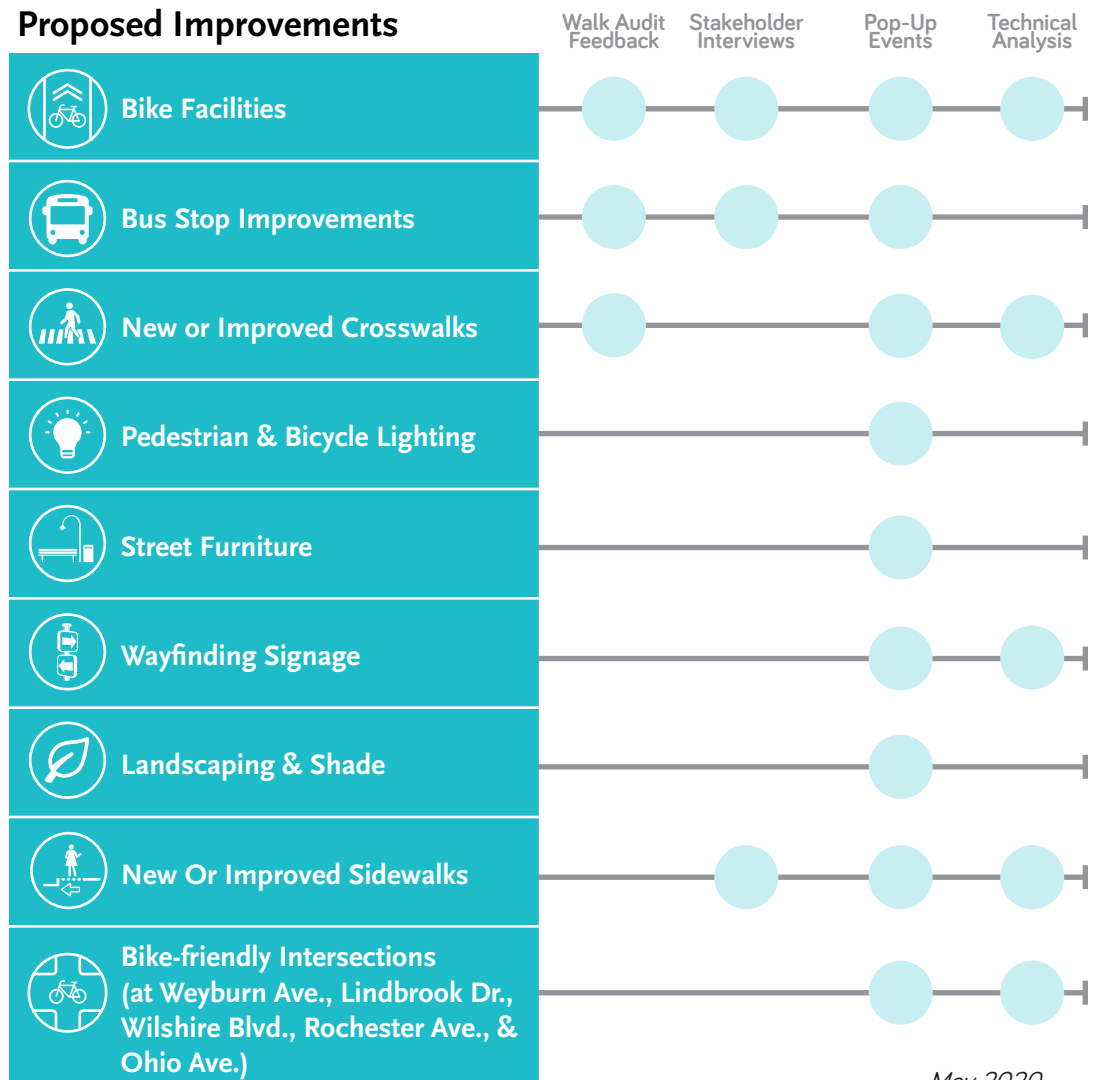
Proposed Improvements



Westwood Blvd.

Westwood Blvd. is a major north/south thoroughfare for cars and transit, and connects directly to the station. The street has existing and proposed bicycle infrastructure via the LACMP 2035. It connects to retail and commercial destinations in Westwood Village, Ronald Reagan UCLA Medical Center, and one of the main UCLA entrances to the north.

Proposed Improvements

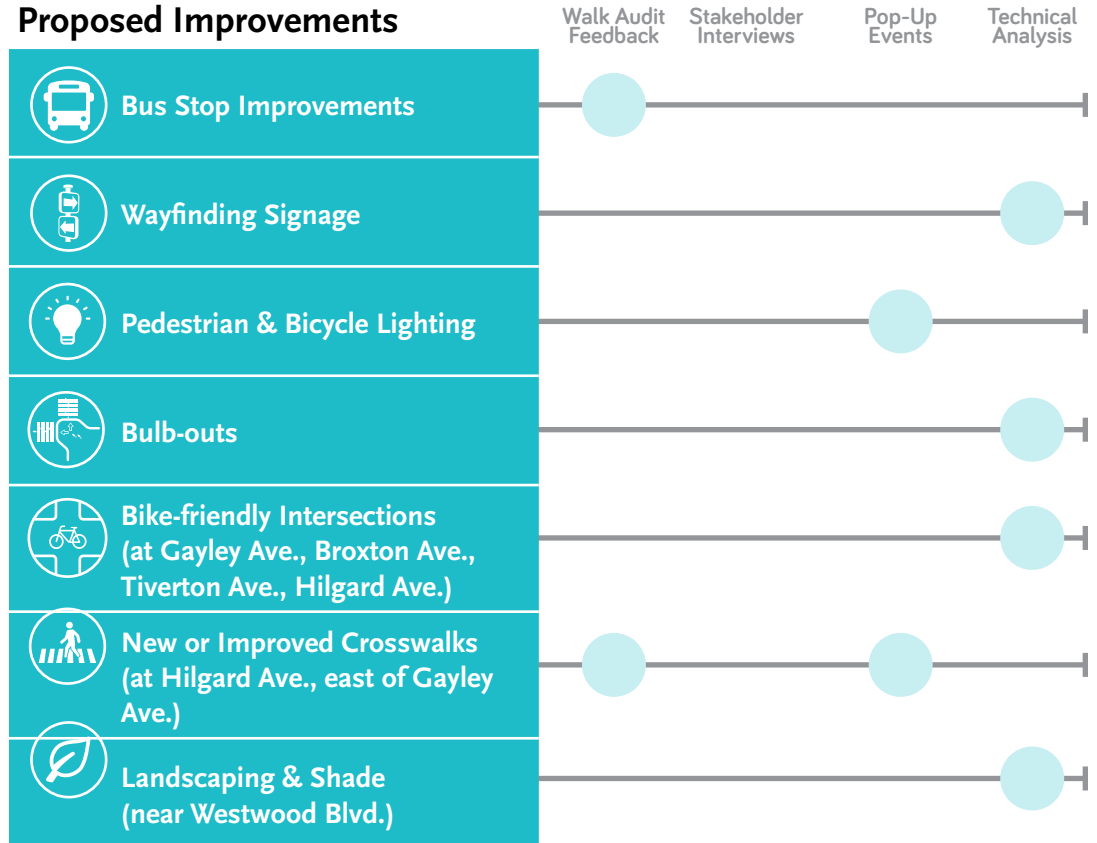


WESTWOOD/UCLA

Le Conte Ave.

Le Conte Ave. is a significant east/west connector in the north of Westwood Village. The street has existing bicycle infrastructure via the LACMP 2035 and UCLA plan. It connects to retail and commercial destinations in Westwood Village, Ronald Reagan UCLA Medical Center, and UCLA.

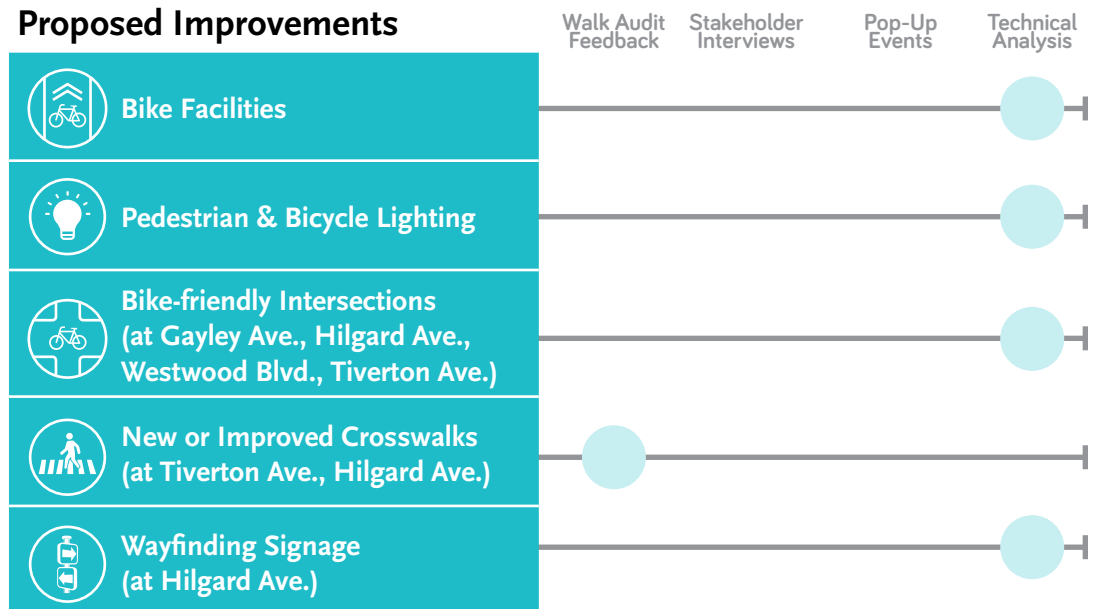
Proposed Improvements



Lindbrook Dr.

Lindbrook Dr. provides an alternative east/west pathway for bicyclists and pedestrians, running parallel to Wilshire Blvd. It also connects to the Hammer Museum.

Proposed Improvements

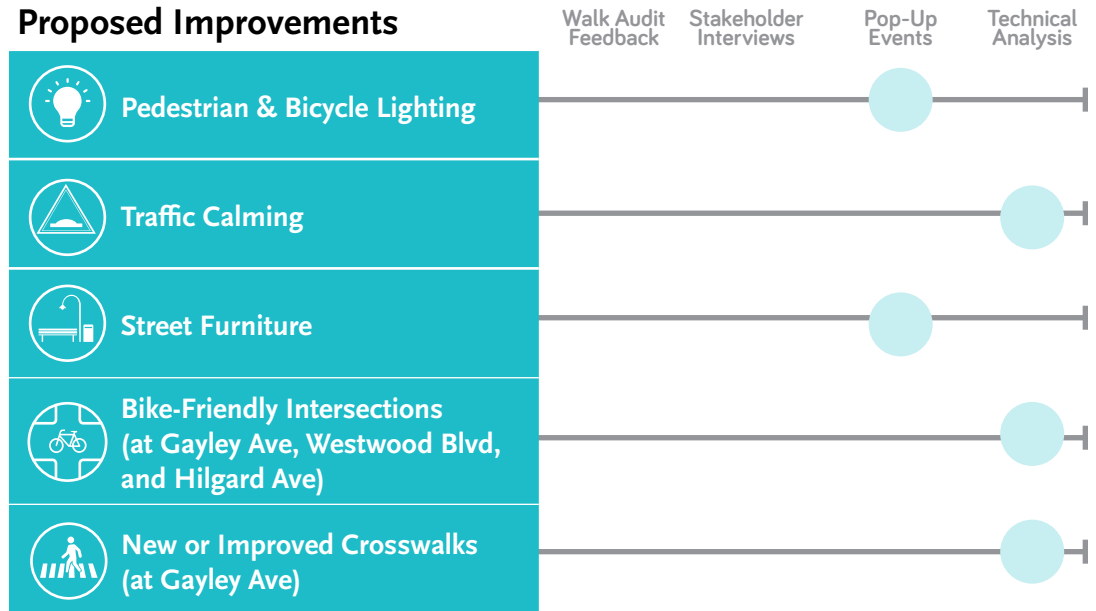


WESTWOOD/UCLA

Weyburn Ave.

Weyburn Ave. is used for east/west travel in north Westwood Village by the pedestrians, cyclists and multi-modal travelers. It connects to retail and entertainment destinations, as well as residences to both the east and west.

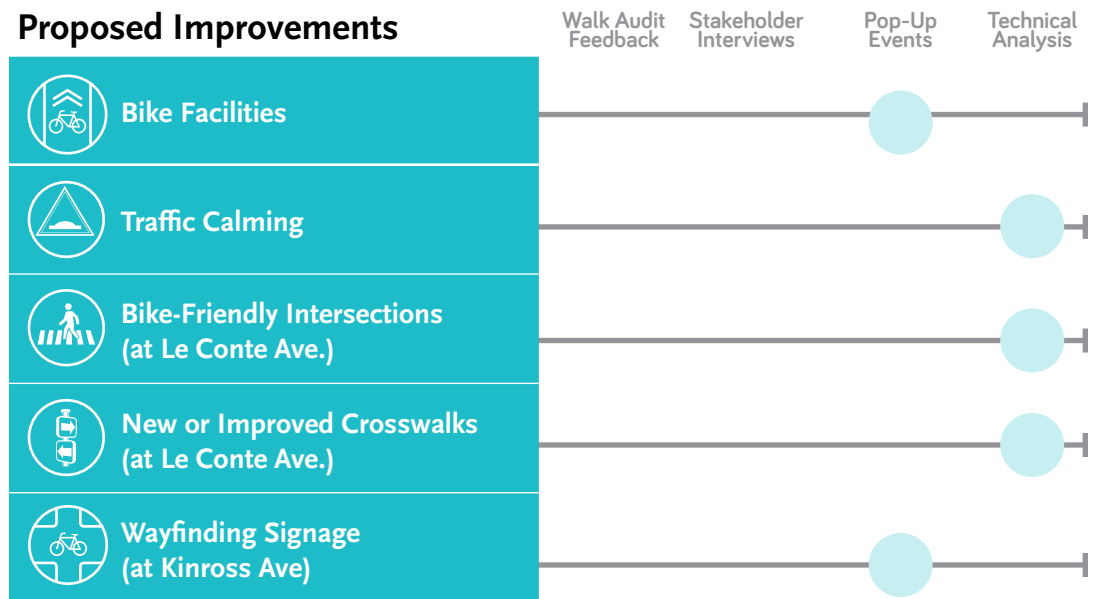
Proposed Improvements



Broxton Ave.

Broxton Ave is a short north/south street in north Westwood Village. Previously converted into a one-way street, its wide sidewalks and low speeds offer a low-stress alternative to Westwood Blvd.

Proposed Improvements

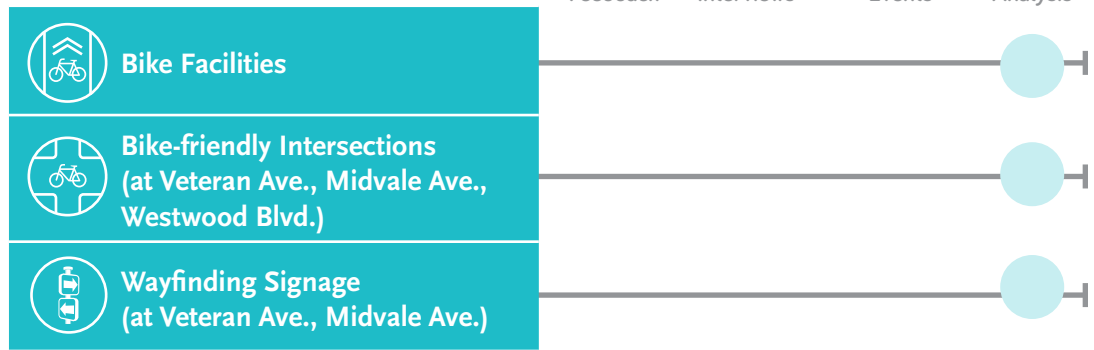


WESTWOOD/UCLA

Rochester Ave.

Rochester Ave. is a significant east/west connection for bicyclists and pedestrians in the southern quadrants. The street has proposed bicycle infrastructure via the LACMP 2035. It connects to the Westwood Recreation Center.

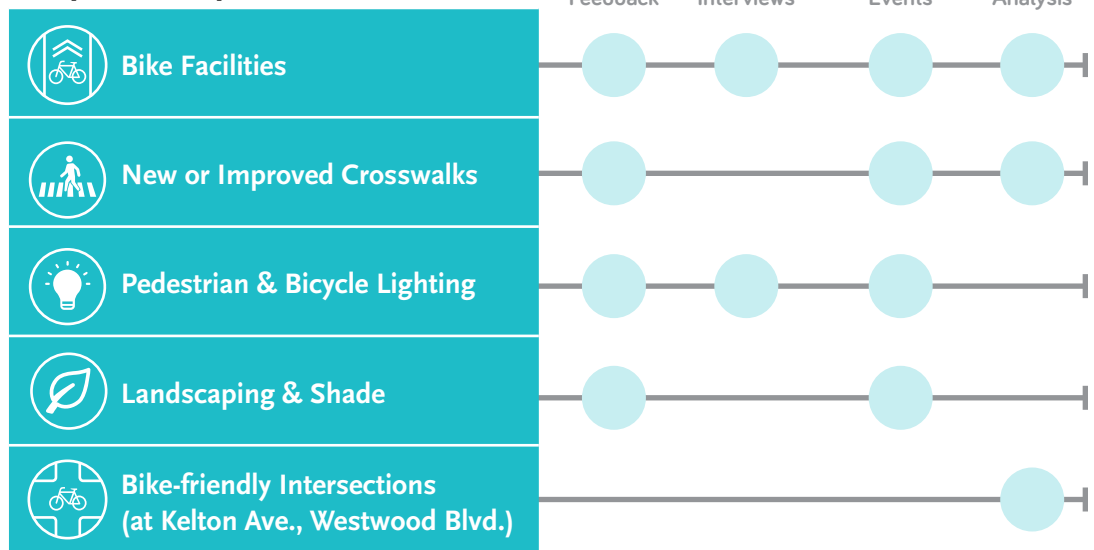
Proposed Improvements



Ohio Ave.

Ohio Ave is a significant east/west connection for pedestrians and bicyclists at the southern edge of the station area, offering an alternative to both Wilshire Blvd. and Santa Monica Blvd. The street has existing and proposed bicycle infrastructure via the LACMP 2035 and UCLA plan and provides regional connectivity.

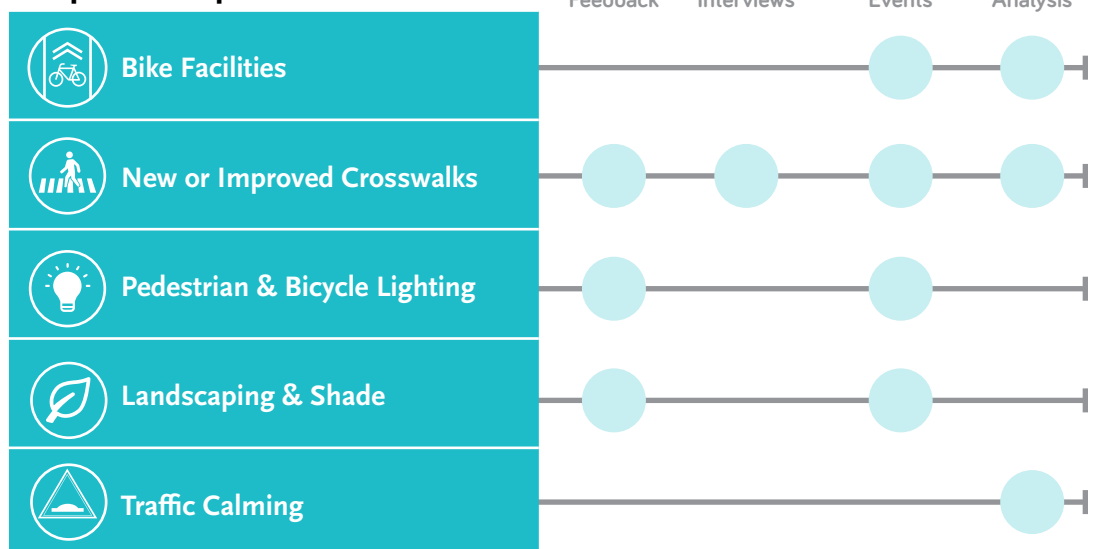
Proposed Improvements



Veteran Ave.

Veteran Ave. offers a north/south connection for pedestrians. It has transit connections for LA Metro and assorted municipal transit agencies. It connects to UCLA Student Housing to the north and runs along the cemetery on the west side.

Proposed Improvements

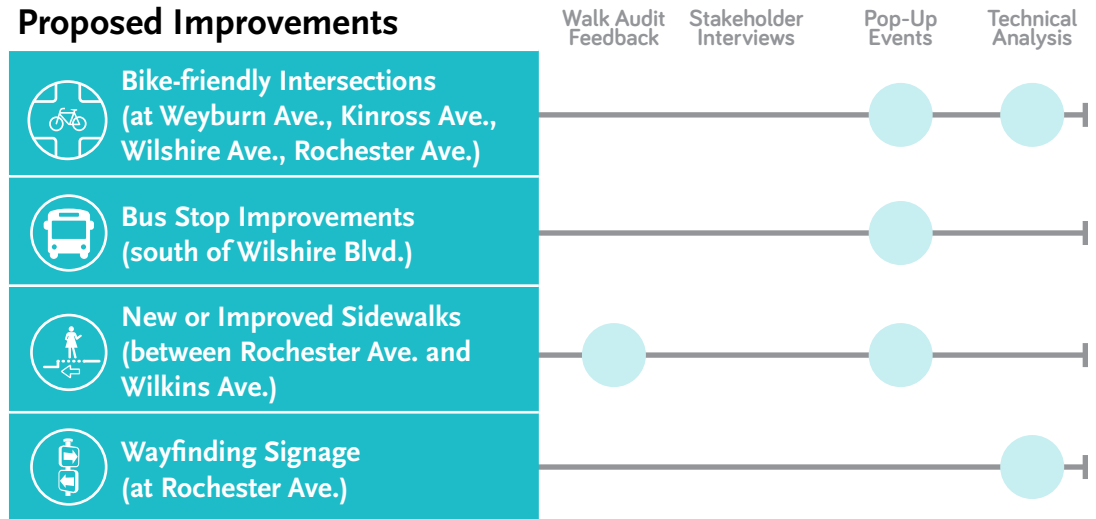


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WESTWOOD/UCLA

Veteran Ave. (cont'd)

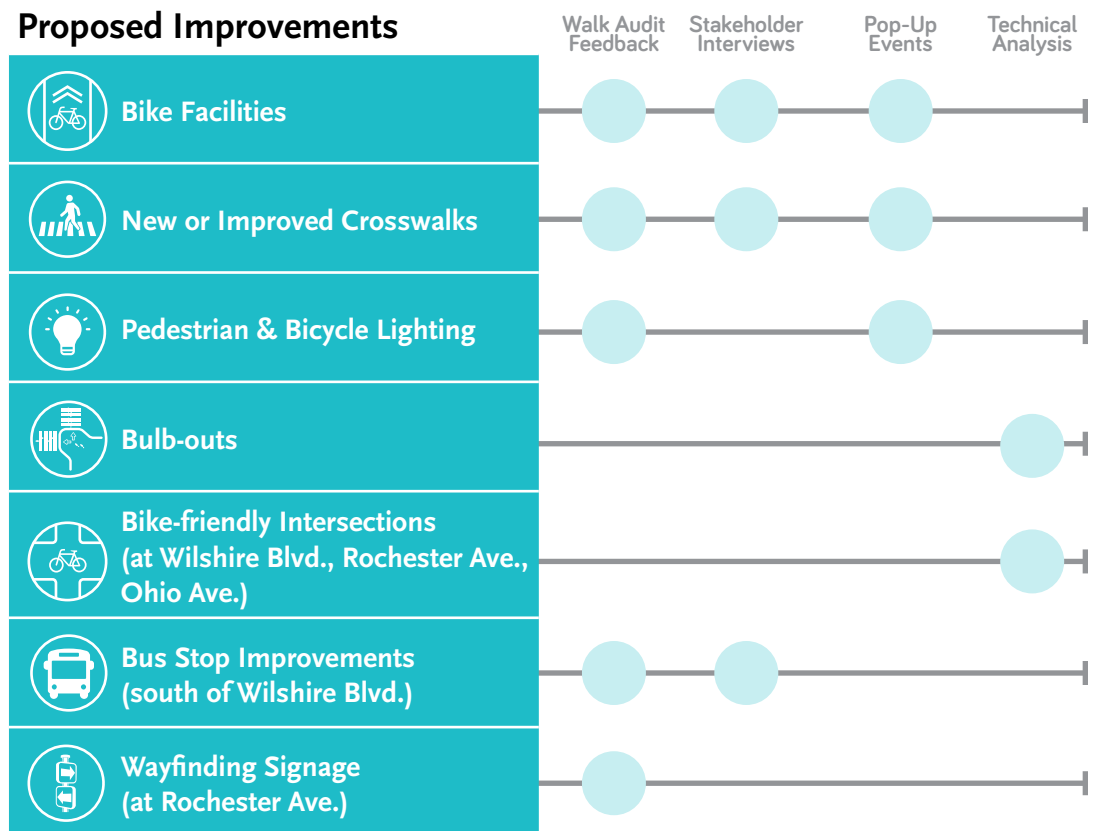
Proposed Improvements



Midvale Ave./Kelton Ave.

Midvale is a north/south connection for bicyclists and pedestrians through residential areas in the southern portion of the station area. It has a Bruin Bus stop, which is a circulator for UCLA students. The street has existing and proposed bicycle infrastructure via the LACMP 2035 and UCLA plan.

Proposed Improvements

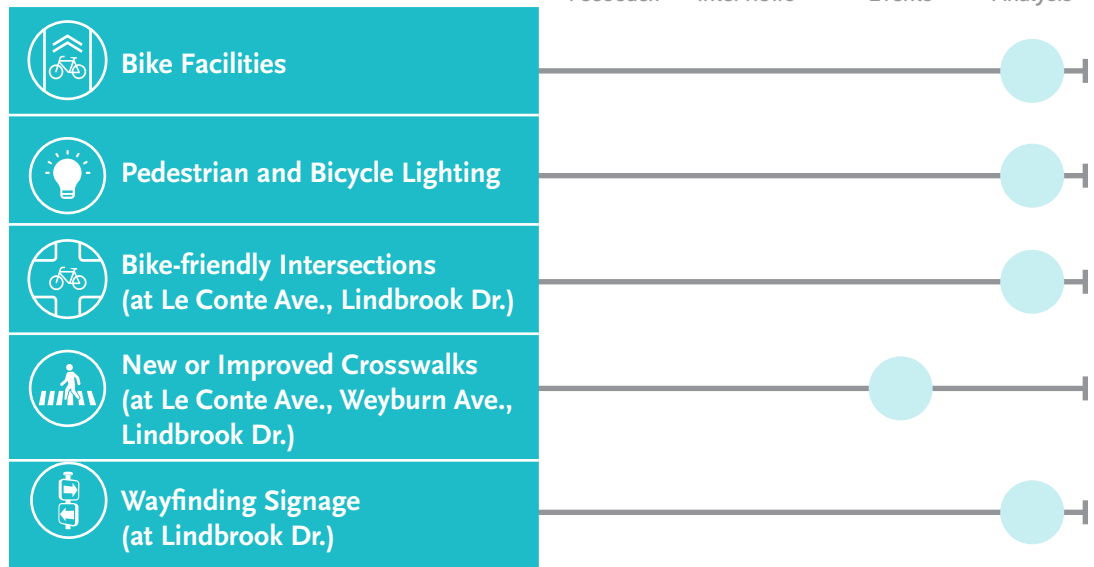


WESTWOOD/UCLA

Hilgard Ave

Hilgard Ave. is a heavily trafficked north/south connection along the east side of the UCLA campus. It has proposed bicycle infrastructure via the LACMP 2035. It connects to residential areas with a high amount of student housing and carries local and regional buses.

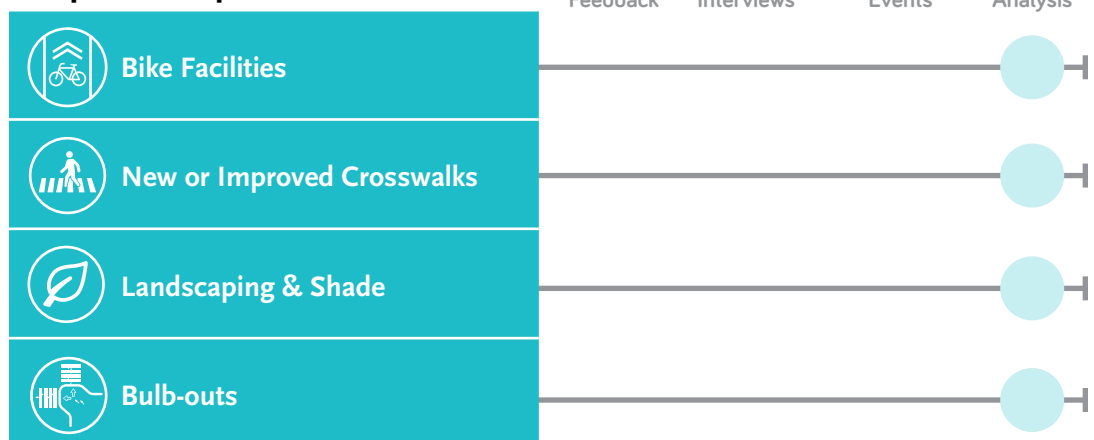
Proposed Improvements



Malcolm Ave

Malcolm Ave. is a north/south connection for bicyclists and pedestrians, running along the eastern edge of the station area. It is an alternative to Westwood Blvd. and connects to both east/west connectors of Rochester Ave. and Ohio Ave.

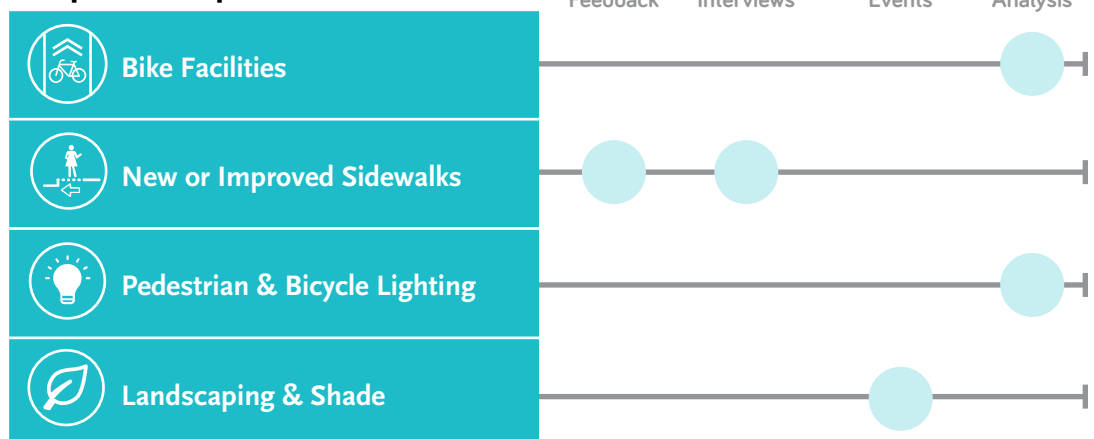
Proposed Improvements



Weyburn Pl.

Weyburn Pl. connects to residential areas with high amounts of student housing in the northwest quadrant. Some of the street functions as an alley, though portions have been improved with lighting and sidewalks. If improved further, the street could provide a nice and direct connection to the western station portal.

Proposed Improvements

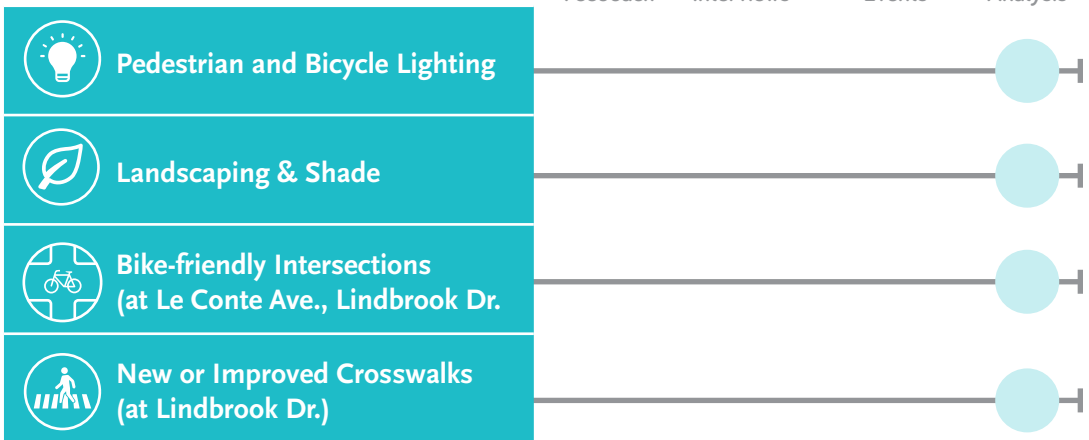


WESTWOOD/UCLA

Tiverton Ave.

Tiverton Ave. is a short north/south street in north Westwood Village. Its southern length has been converted to a one-way street. It has an existing sharrow and connects to a frequently used multi-use path on the east side of the UCLA campus. It also connects to the major neighborhood grocery store at Le Conte Ave.

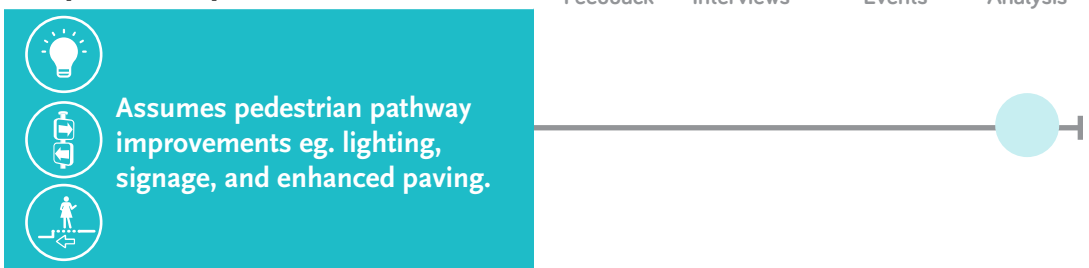
Proposed Improvements



Federal Building Cut Through

A cut-through near the Los Angeles Federal Building offers a low traffic alternative between Veteran Ave. and Sepulveda Blvd. It allows for access to the Passport Agency and other services located there.

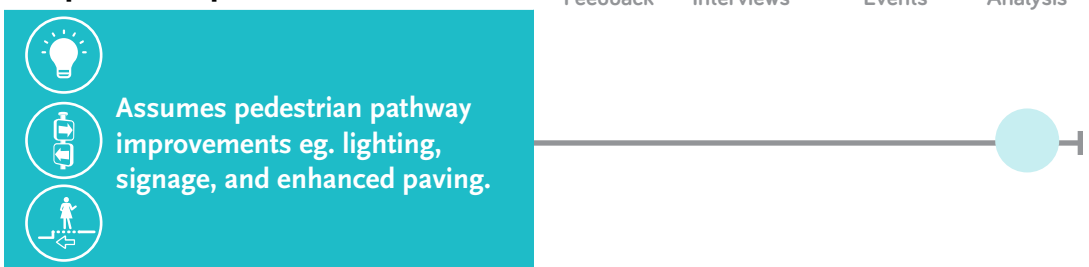
Proposed Improvements



Westwood Recreation Center Cut-through

A cut-through near the Westwood Recreation offers a low traffic alternative between Veteran Ave. and Sepulveda Blvd. It allows for access to the Recreation Center and other park facilities.

Proposed Improvements



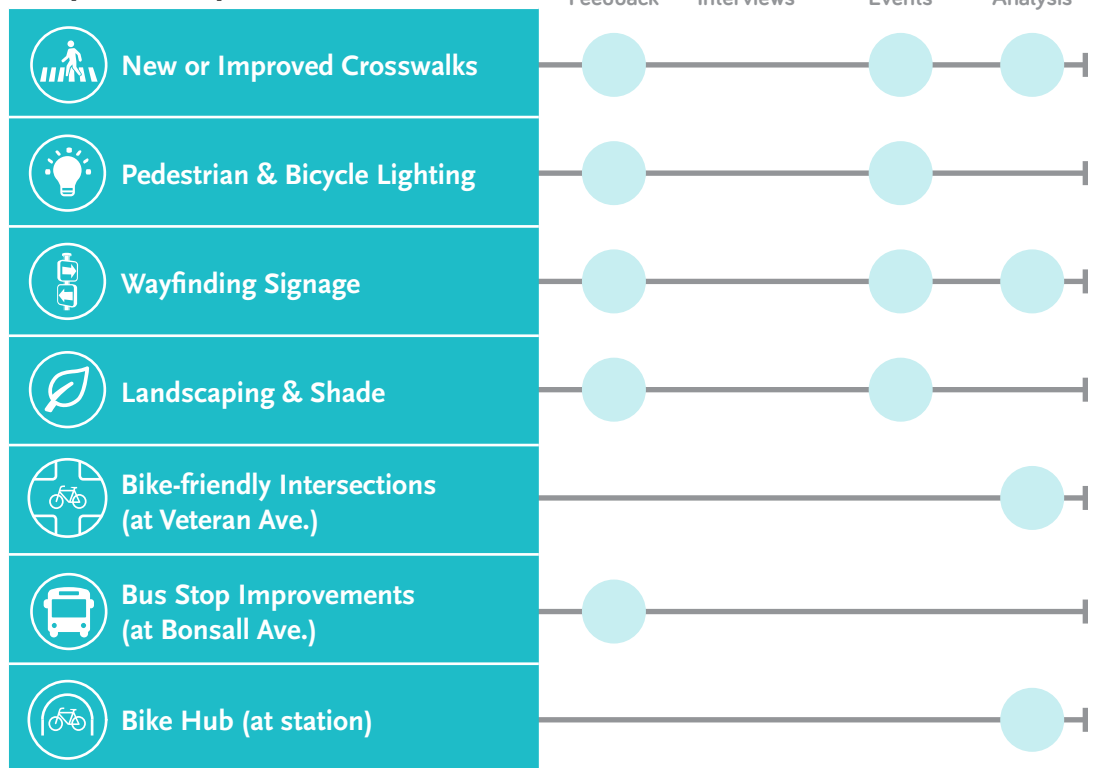
PROJECT ORIGINS WESTWOOD/VA

Wilshire Blvd.

Wilshire Blvd. has direct station access. It is a major east/west thoroughfare for cars and transit.

This street connects to many destinations on the Veterans Affairs (VA) Campus, along with the Los Angeles National Cemetery to the east and office buildings to the west. In this area, the street is heavily trafficked and is not friendly for people on bicycles.

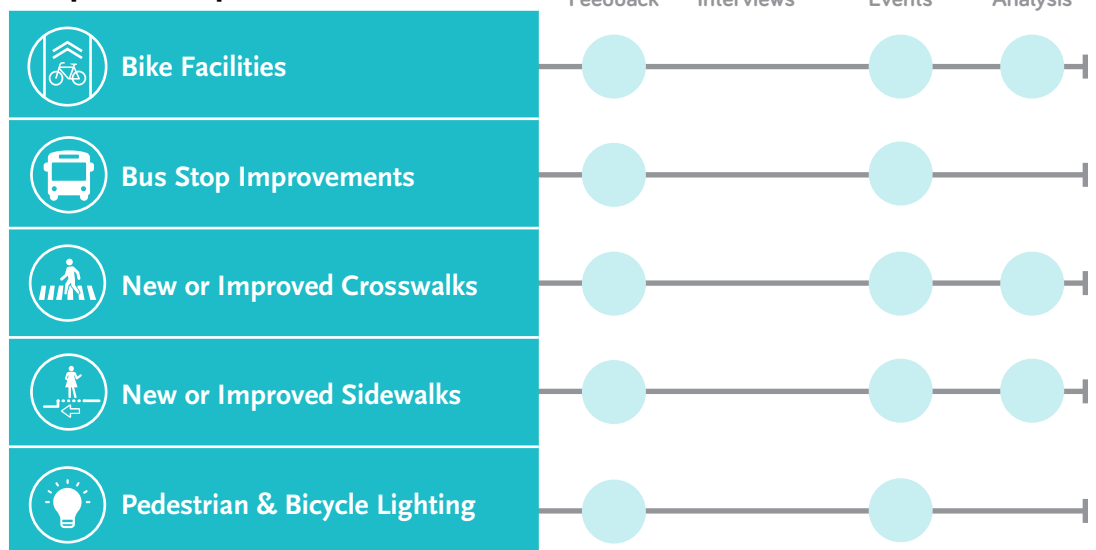
Proposed Improvements



Sawtelle Blvd./ Bonsall Ave.

Bonsall Ave./Sawtelle Blvd. connects directly to the station. It will be the site of a VA Campus shuttle circulator. It is a significant north/south connection for pedestrians and bicyclists. The street has proposed bicycle infrastructure via the LACMP 2035 and the VA Campus Master Plan (VACMP). It connects to many destinations on the VA Campus, as well as the Jackie Robinson Baseball Stadium, and Sawtelle Japantown to the south.

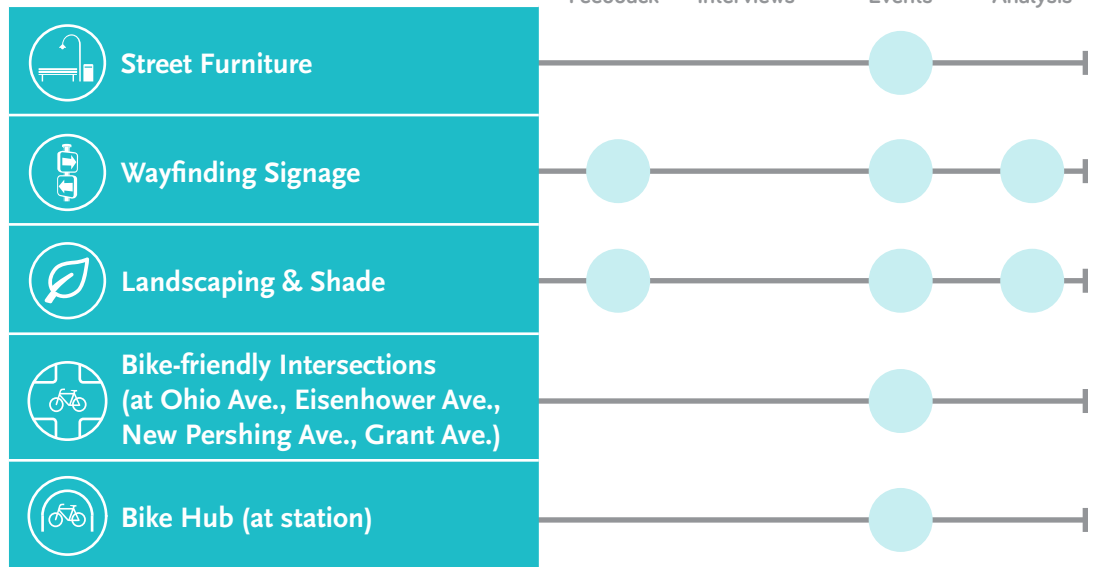
Proposed Improvements



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Sawtelle Blvd./ Bonsall Ave. (cont'd)

Proposed Improvements



Constitution Ave.

Constitution Ave. is the only easterly access point, north of the station to the VA Campus. It will be the site of a VA Campus shuttle circulator. It has proposed bicycle infrastructure via the VACMP. It connects to the Los Angeles National Cemetery and the Jackie Robinson Baseball Stadium.

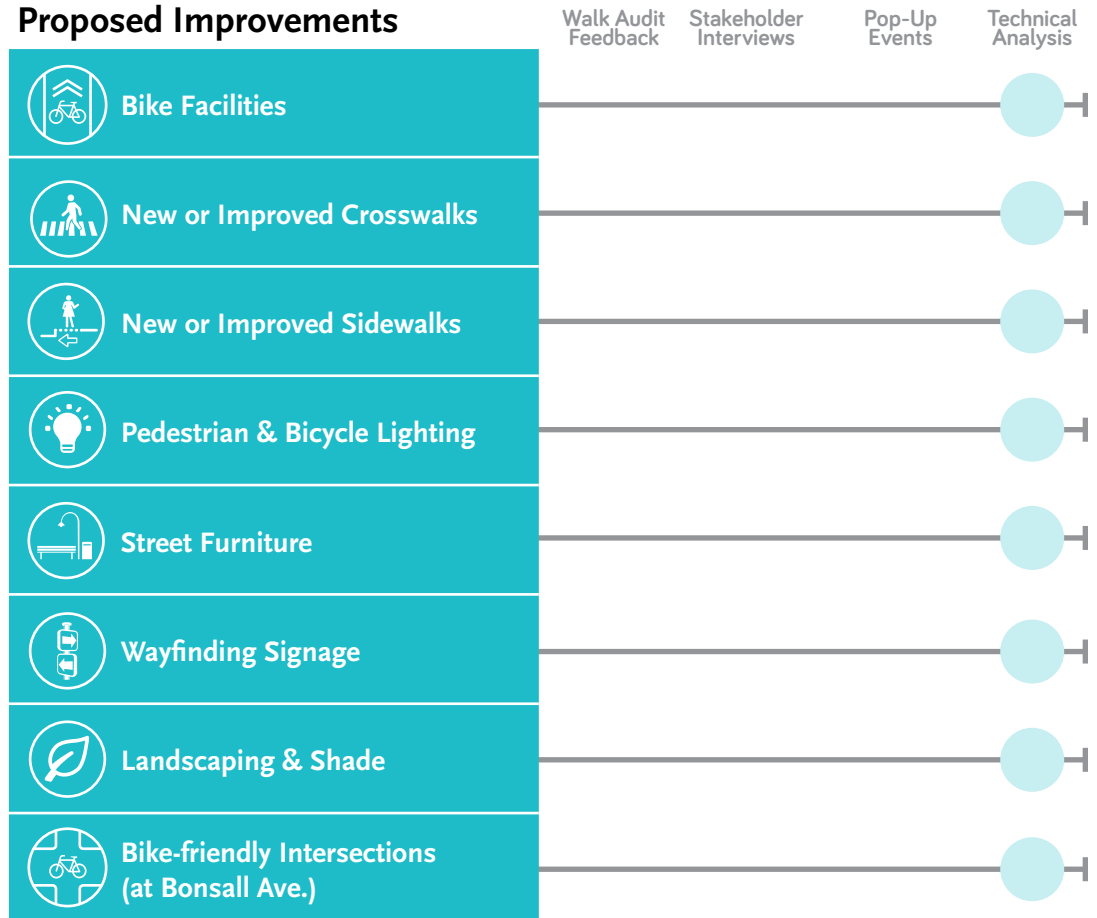
Proposed Improvements



New Pershing Ave.

This new street, proposed under the VACMP, will offer east/west access for pedestrians and cyclists through the VA Campus. It will have a transit connection, with a VA "Excursion" Shuttle stop. It has proposed bicycle infrastructure under the VACMP.

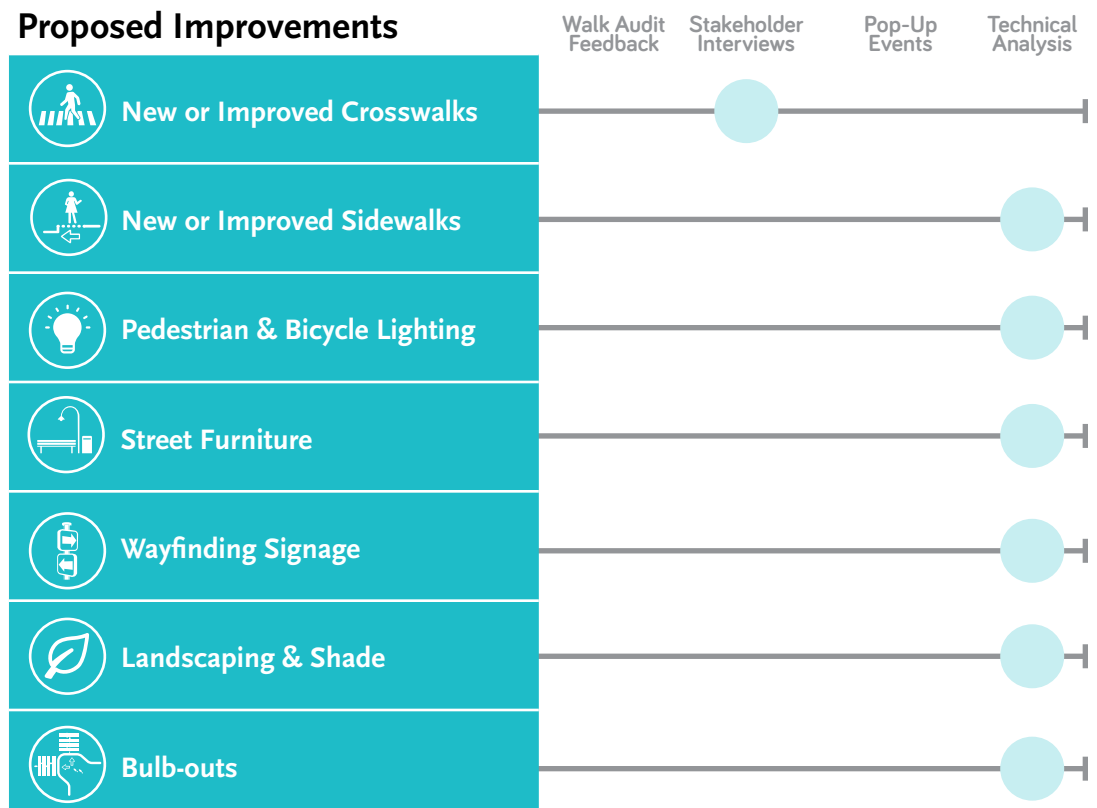
Proposed Improvements



Grant Ave.

Grant Ave is a direct connector for pedestrians across the north quadrant of the VA Campus. Pedestrians would benefit from a number of first/last mile improvements.

Proposed Improvements

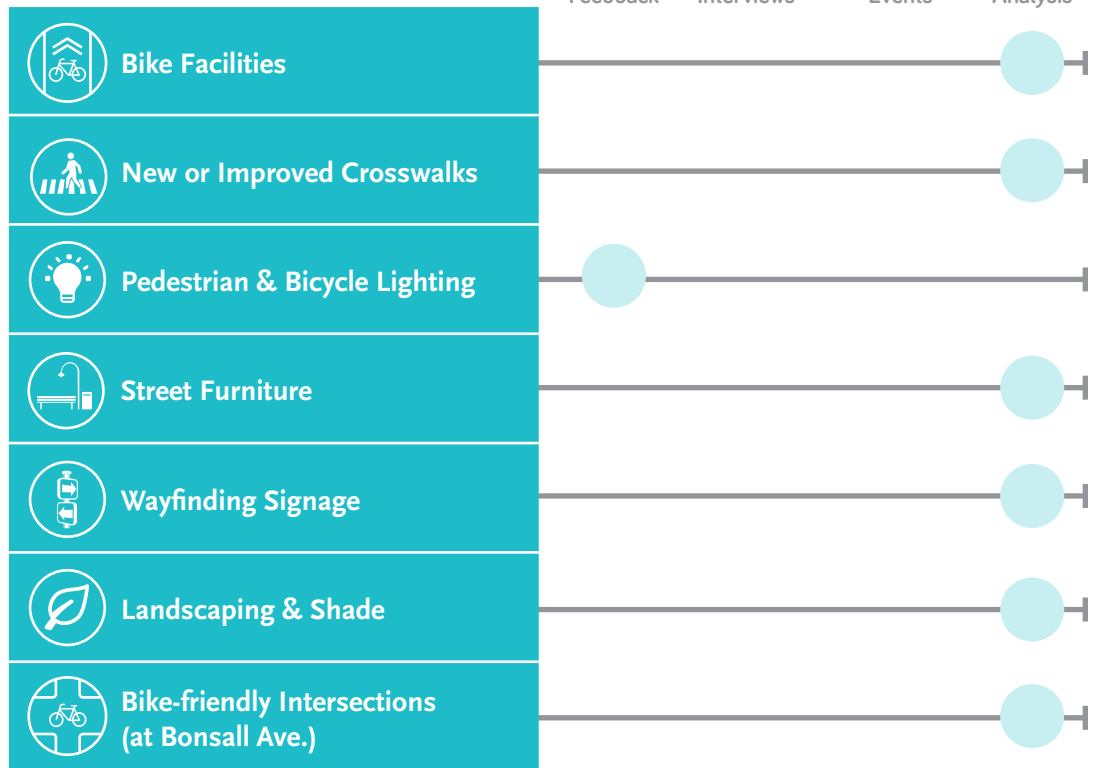


WESTWOOD/VA

Eisenhower Ave.

Eisenhower Ave. offers east/west access for pedestrians and cyclists through the VA Campus. It will be the site of a VA Campus circulator shuttle. It also has proposed bicycle infrastructure via the VACMP.

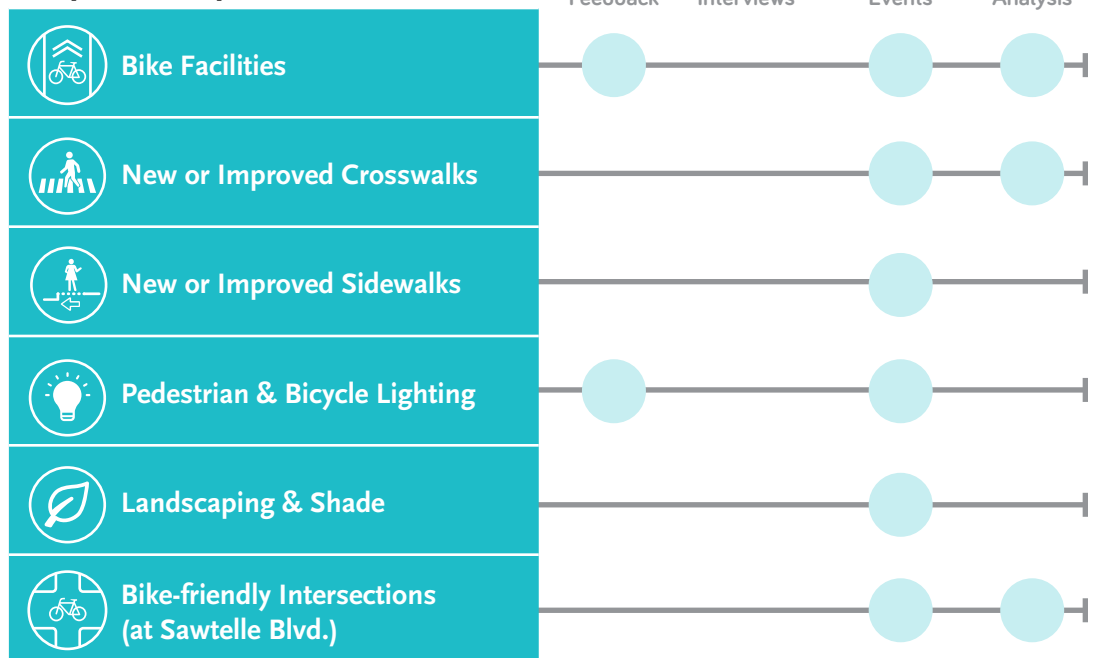
Proposed Improvements



Ohio Ave.

Ohio Ave. is an important east/west connection for pedestrians and bicyclists at the southern edge of the station area, offering an alternative to both Wilshire Blvd. and Santa Monica Blvd. The street has existing and proposed bicycle infrastructure via the LACMP 2035 and UCLA plan. It connects to the Westwood Recreation Center and provides regional connectivity.

Proposed Improvements

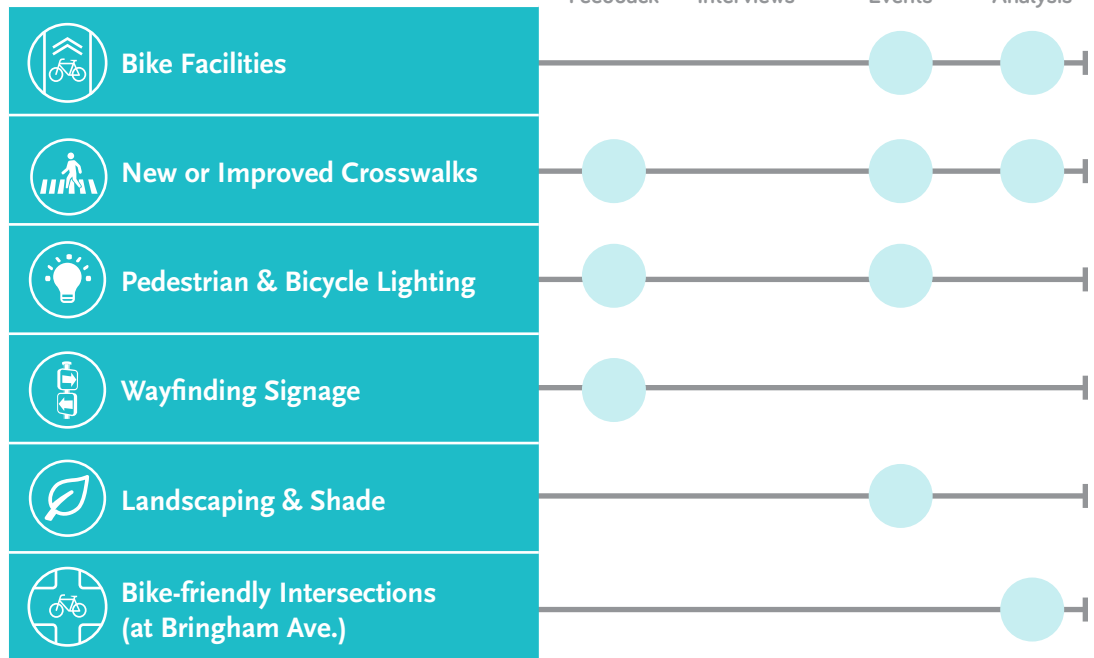


WESTWOOD/VA

Federal Ave./San Vicente Blvd./Bringham Ave.

The three streets of Federal Ave., San Vicente Blvd., and Bringham Ave, are significant north/south connectors on the western edge of the station area and provide access to and from the station for the residential areas nearby. Buses and heavy traffic move along their lengths.

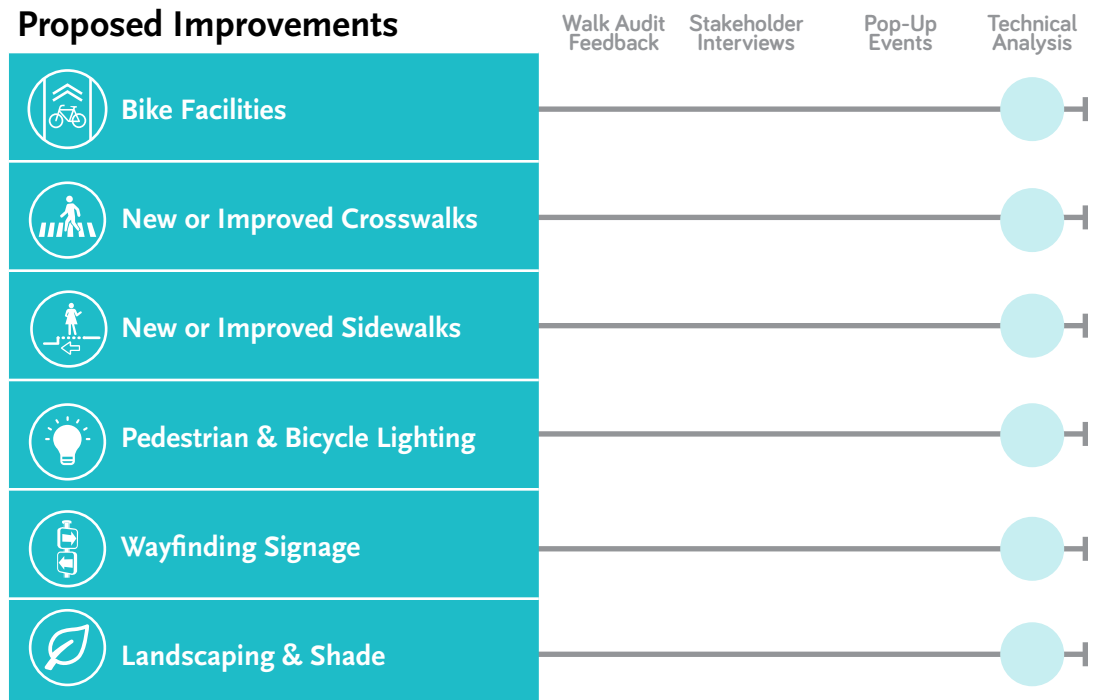
Proposed Improvements



Davis Ave.

Davis Ave. provides station access for the areas in the VA campus and to the north (residential areas). The street has proposed bicycle infrastructure in the VA Master Plan.

Proposed Improvements



WESTWOOD/VA

Veteran Ave.

Veteran Ave. offers a north/south connection for pedestrians. It has transit connections for LA Metro and assorted municipal transit agencies. It connects to UCLA Student Housing to the north and runs along the cemetery on the west side.

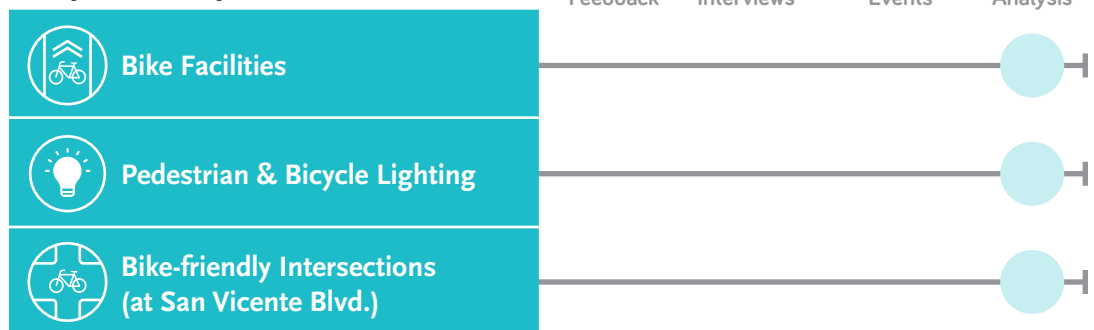
Proposed Improvements



Mayfield Ave.

Mayfield Ave. is a residential street that connects the station area and VA campus to the residential areas to the northwest.

Proposed Improvements



Federal Building Cut Through

A cut-through near the Los Angeles Federal Building offers a low traffic alternative between Veteran Ave. and Sepulveda Blvd. It allows for access to the Passport Agency and other services located there.

Proposed Improvements



Assumes pedestrian pathway improvements eg. lighting, signage, and enhanced paving.

The teal box contains three circular icons: a lightbulb, a smartphone, and a person walking on a path with a directional arrow.

Walk Audit Feedback Stakeholder Interviews Pop-Up Events Technical Analysis

Westwood Recreation Center Cut-through

A cut-through near the Westwood Recreation offers a low traffic alternative between Veteran Ave and Sepulveda Blvd. It allows for access to the Recreation Center and other park facilities.

Proposed Improvements



Assumes pedestrian pathway improvements, e.g. lighting, signage, enhanced paving, and multi-use path on Sepulveda to connect to Ohio Ave.

The teal box contains three circular icons: a lightbulb, a smartphone, and a person walking on a path with a directional arrow.

Walk Audit Feedback Stakeholder Interviews Pop-Up Events Technical Analysis

Next stop: connected communities.

COST ASSUMPTIONS

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

Purple Line Extension Sections 2&3
 First/Last Mile Plan, Cost Assumptions Summary

This memorandum summarizes the project elements and unit cost assumptions used in the development of conceptual-level cost estimates associated with the implementation of proposed improvements for the Purple Line Extension Section 2 & 3 First/Last Mile Plan. Each individual improvement shown below is presented with unit type, its associated unit cost, and additional comments for the projected cost item. Cost estimates for improvements proposed by street on a station-by-station basis are found in the Rough Order of Magnitude (ROM) Cost Estimates Memo.

Proposed Walking Improvements

Improvement	Unit	Cost	Comments
Bulb-Outs	Each	\$120,000	\$30,000 per corner
Bus Stop Improvements	Each	\$45,000	Includes platform area, benches, trash receptacle, info/signage
Landscaping and Shade	Block	\$40,000	Assumes tree spacing of 40 feet
New or Improved Crosswalks	Each	\$4,500 for all legs; \$2,250 for main street legs only	Assumes only improvements need be made. \$200,000 for a HAWK beacon, \$500,000 for full signal at 4-leg intersection
New or Improved Sidewalks	Square Foot	\$43 for new; \$13 for improved	Assumes concrete sidewalk extension with curb, not including crowning of the street
Pedestrian & Bicycle Lighting	Each (includes both sides of the street)	\$10,000	Assume one pedestrian lighting post per 50 feet
Street Furniture	Each	\$3,000	Assume one bench and one trash receptacle every 200 feet
Traffic Calming	Each	\$120,000	Assume bulb-outs at all signalized intersections for corridors identified for traffic calming
Wayfinding Signs	Each	\$900	Assume one side every 660 feet, on average. Includes decision, confirmation, turn and off-bikeway signs in both directions

Proposed Biking Improvements

Improvement	Unit	Cost	Comments
Bicycle Hub	Each	\$1,800,000	Assumes a new bike hub
Bicycle Friendly Intersection	Each	\$100,000	\$50,000 for main street legs only
Sharrow	Each	\$600	Beginning of each block and max of 250 foot spacing
Bicycle Boulevard	Feet	\$55	For signed bicycle routes with some improvements. Assumes average cost, dependent on context and magnitude of project
Class II Bike Lanes	Mile	\$75,000	Signage and striping only. No pavement reconstruction.
Class II Protected Bicycle Lane – Raised Median	Mile	\$1,860,000	Double the cost of ATSP one-way Cycle Track with 5 foot raised median. Includes signage and striping (no pavement reconstruction)
Class II Protected Bicycle Lane – Striped Buffer	Mile	\$450,000	Assumes asphalt is existing, and includes a 3 foot buffer, bike lane symbols, and vertical markers every 3 feet
Shared Use Path	Mile	\$1,600,000	Assumptions include the ROW exists

Next stop: connected communities.

PROJECT SCORING METHODOLOGY

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



Metro[®]

MAY 2020

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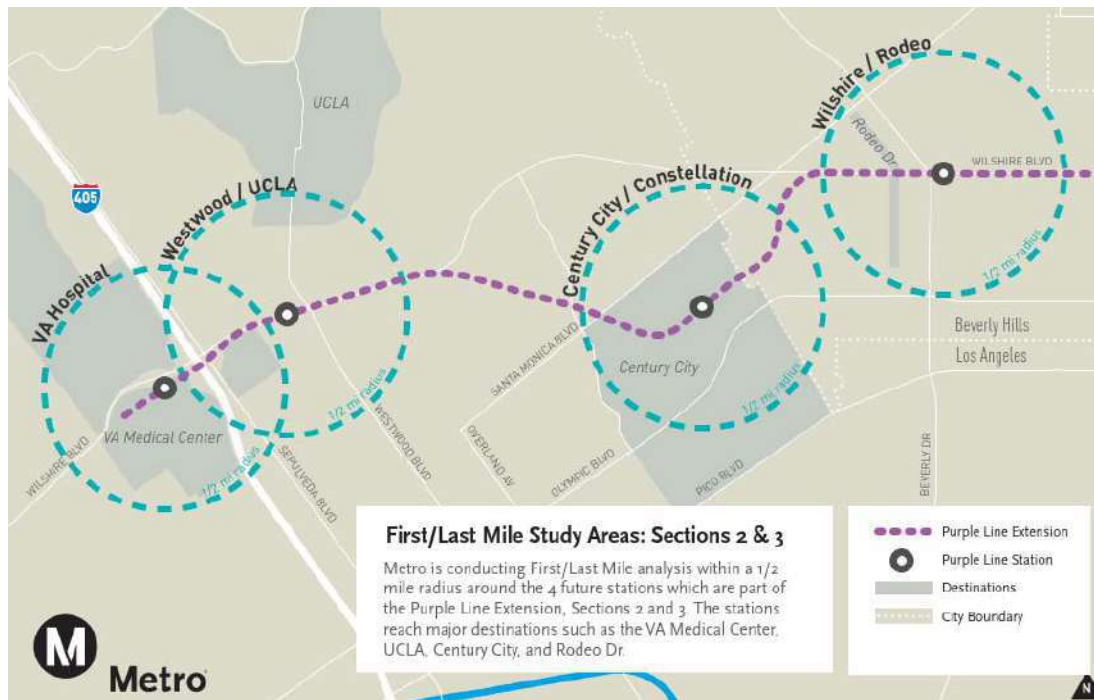
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1 Introduction

The Purple Line First/Last Mile (FLM) planning process is focused on providing safe and inviting pedestrian and wheel access to four new heavy rail transit stations as part of the Purple Line Extension Phases II and III. This memo describes the methodology for identifying and scoring pedestrian and wheel improvements to arrive at a list of prioritized FLM projects for each of the four stations. The methodology discussed in this memo builds on the approach used in the East San Fernando Valley (ESFV FLM Planning project in order to provide consistency in the methods used to prioritize FLM improvements between different transit corridors across Los Angeles County. The following stations were analyzed for FLM access as part of the Purple Line Extension:

- Wilshire/Rodeo
- Century City/Constellation
- Westwood/UCLA
- Westwood/VA

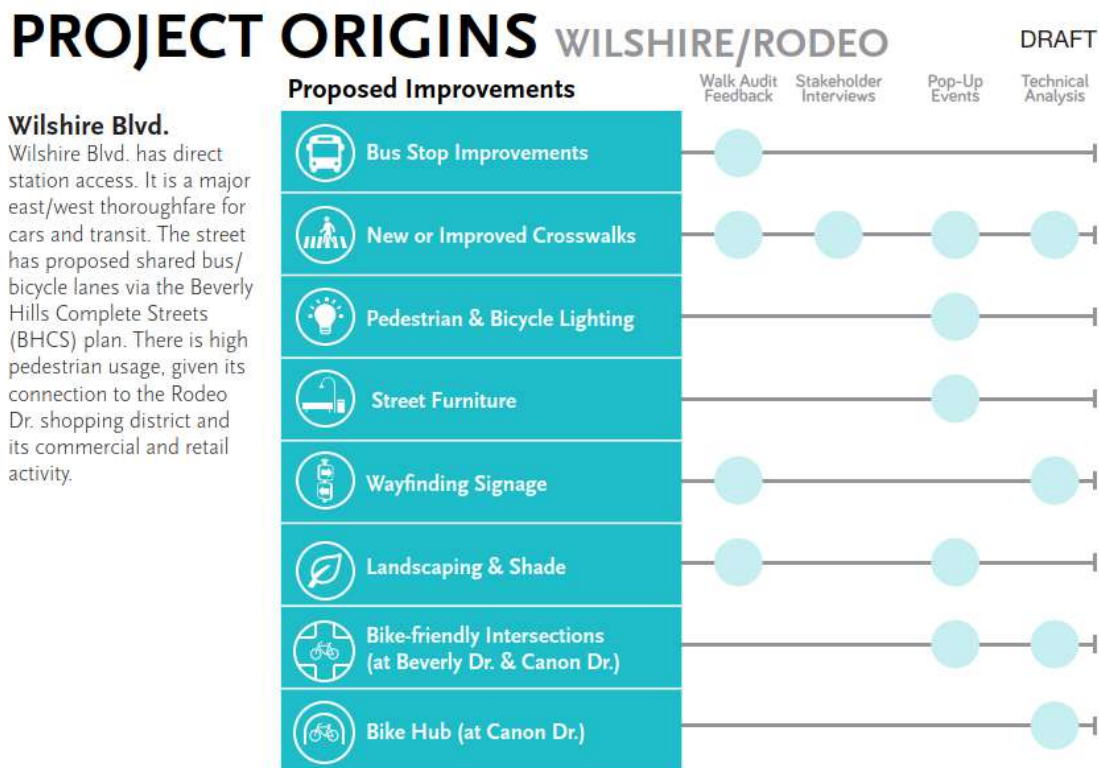
Figure 1: First/Last Mile Study Areas



2 Identifying Pedestrian and Wheels Projects

The project identification approach is similar to that of the ESFV project with the exception of how community and stakeholder input was gathered, and the resulting projects proposed as part of the Purple Line FLM effort. This feedback was collected through FLM walk audits, stakeholder interviews, and pop-up events as described in this section. The source or origin of each proposed project as part of the Purple Line FLM project has been summarized as shown in the example in [Figure 2](#).

Figure 2: Project Origins Example for Wilshire/Rodeo



2.1 Pedestrian Projects Identification

Potential FLM projects for pedestrians within the half-mile station area were identified through various community engagement and technical team processes between Fall 2018 and Summer 2019. These processes helped identify potential projects and inform how they were to be scored and prioritized.

2.2 Wheels Projects Identification

Potential projects for wheels within the half-mile station area and within three miles of the Purple Line Extension Phase II and III were identified through the process below:

1. Map the bicycle network shown on local jurisdictions' adopted and active transportation plans within three miles of the Purple Line Extension alignment, which includes the City of Los Angeles Mobility 2035 Plan, County of Los Angeles Bicycle Master Plan, and UCLA Bicycle Master Plan.
2. Locate gaps in the network, that is, geographic areas (both neighborhoods and commercial districts/corridor) within three miles of the Purple Line Extension alignment that would not have access to the nearest half-mile station area if the local jurisdictions' proposed networks were fully implemented.
3. Identify additional potential linear facilities that would provide access to those network gaps.
4. Identify potential linear projects within each half-mile station area that would connect the station to destinations within the station area and to the three-mile network by using input collected during walk audits and recorded on Metro's FLM walk audit app in addition to field survey work done by the design team.

2.3 First/Last Mile Walk Audits

The FLM Walk Audits were used to identify projects for pedestrians within the half-mile station area and for projects for wheels within the half-mile station area that would link the station to the bicycle network. The approach to the walk audits was developed with Metro First/Last Mile and Community Relations staff and accounted for the unique physical and social context of the corridor. Four stations were audited by the technical design team, community stakeholders, and Metro staff during Winter 2019.

2.4 Stakeholder Interviews

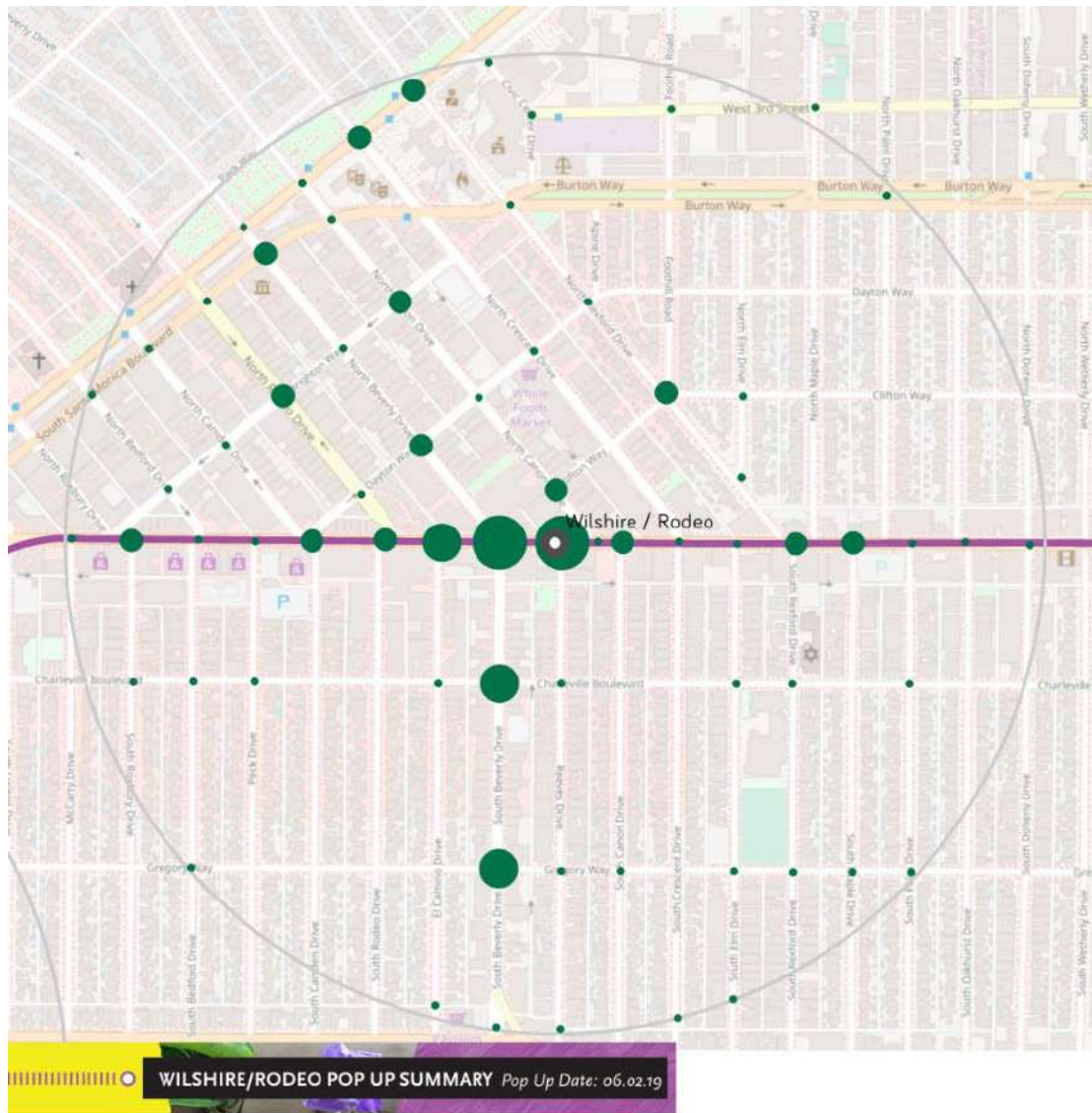
Between November 2018 and January 2019, a series of interviews were conducted with a variety of individuals and organizations that have a stake or interest in the future of the Metro Purple Line Extension Project. Stakeholders included elected officials, planning staff, and representatives from community organizations, businesses, healthcare centers and higher education institutions. There were 13 interviews conducted with a total of 21 stakeholders between November 2018 and January 2019.

The interviews were either conducted via phone, video-chat, or in person. Interview participants were asked a similar set of questions and were shown Google Earth map imagery of the stakeholder's corresponding station area. Participants analyzed the map and provided commentary on specific areas of concern regarding pedestrian and wheels elements.

2.5 Pop-Up Events

Local community members were able to provide input at pop-up events held in the Spring/Summer of 2019. Participants were able to indicate which projects they would like to see and where they would like them to be located. These results were summarized and used to identify improvements that were more frequently suggested. An example of one of the station pop-up summaries is shown in Figure 3.

Figure 3: Pop-Up Summary Sheet for Wilshire/Rodeo



Proposed Spot Improvements by Intersection

- 1-2
 - 3-4
 - 5-6
 - 7-8
- Top 5 Intersections:**
- Wilshire Blvd & Reeves Dr (8)
 - Wilshire Blvd & Beverly Dr (7)
 - Wilshire Blvd & Rodeo Dr (5)
 - Beverly Dr & Charleville Blvd (5)
 - Beverly Dr & Gregory Way (5)

169 Total Proposed Improvements

- 149 Total Spot Improvements
 - Street Furniture (24)
 - Crosswalks (22)
 - Bike Friendly Intersections (19)
- 20 Total Corridor Improvements

(Top 3)

2.6 Community Survey

An online community survey was distributed in English and Spanish and was completed by approximately 443 participants between May 23, 2019 and August 25, 2019. The survey consisted of 21 questions regarding demographics, destinations they travel to near the four new stations, commuting patterns, and existing and desired street conditions near the stations.

Out of 369 respondents, over 49 percent of respondents said they would use the Westwood/UCLA station the most (see Figure 4. Most respondents reported they live in the area (see Figure 5. When asked which aspects were the most important to users at the station they would use the most, the items deemed most important were more landscaping and shade and improved pedestrian and bike lighting, as shown in Figure 6.

Figure 4: When the Purple Line Extension opens, which station would you use the most?

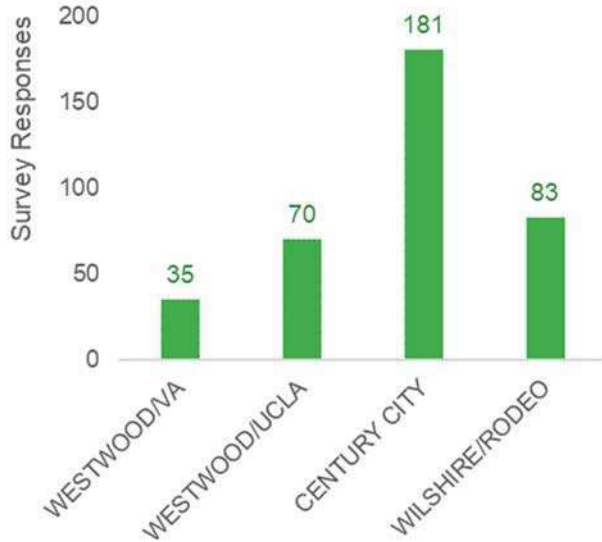


Figure 5: What is your relation to the Westside area?

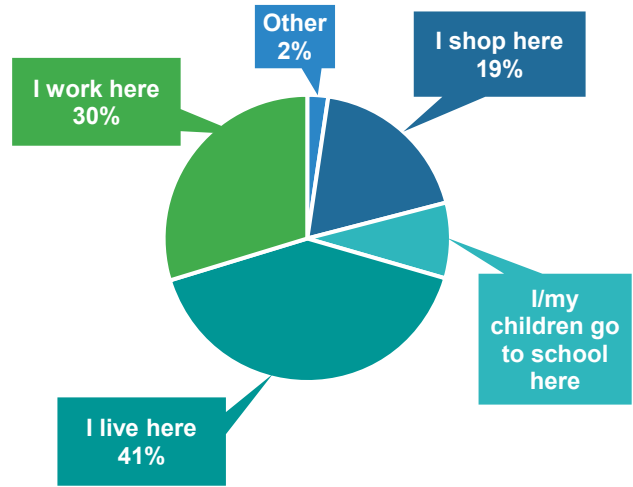
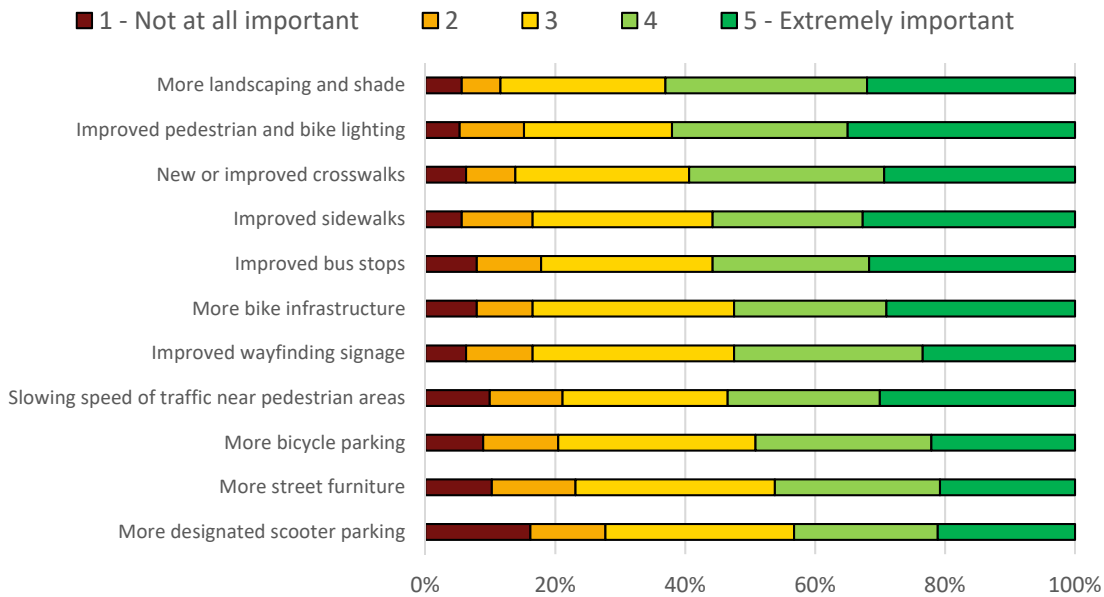


Figure 6: How important to you are the following street improvements around the stations?



3 Pedestrian Project Scoring

The design team reviewed project prioritization methods from the East San Fernando Valley FLM Planning project, and developed a scoring system consistent with this project, but modified slightly to be appropriate for the Purple Line FLM project. Some key differences are in the approach to gathering and scoring community input, and different project types.

For the purposes of scoring, individual pedestrian improvements were grouped by corridor or pathway segments to provide for a more complete walking environment, as opposed to separating small improvements, such as landscaping and sidewalk enhancements, and diluting their potential streetscape benefits. By focusing on more comprehensive streetscape improvements, the benefits are more likely to be noticeable and have a greater positive impact on Metro customers connecting with the transit system.

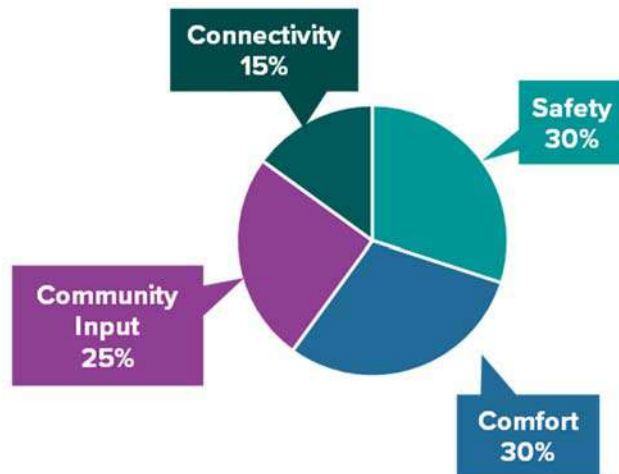
The scoring system will convey project prioritization from a technical standpoint and the projects themselves would be subject to coordination with local jurisdictions, available funding, and Metro Board direction.

3.1 Scoring Criteria and Methodology

The projects will be scored based on four categories: Safety, Comfort, Community Input, and Connectivity.

Safety is weighted at 30 points, as well as Comfort, in order to identify projects that make the transit system safe and comfortable to use for transit users of all ages and abilities. Community Input is weighted at 25 points, so that project prioritization is reflective of community needs. Connectivity is weighted at 15 points and is given less weight than other categories, since all pedestrian projects being proposed are meant to increase connectivity to the transit system. The maximum score a project could earn is 100 points. The weighting of categories and specific criteria are described in the following sections.

Figure 7: Ped Projects Weighting



3.1.1 Safety = 30 points

Safety Improvement Type

Includes proposed safety improvements on a pathway segment leading to a station and could earn up to 25 points

5 points	Pedestrian/bike lighting
5 points	Bulb-outs
5 points	New or improved crosswalks

5 points	New or improved sidewalks
5 points	Residential traffic calming

SWITRS Collision Data

Pedestrian patterns and destinations are expected to change with the opening of the future Purple Line stations, so Statewide Integrated Traffic Records System (SWITRS) collision data is given less weight than the safety improvements proposed on a street leading to the station. The total number of pedestrian/motor vehicle collisions that occur on streets on which the project would be located could earn up to 5 points.

5 points	Greater than 10 collisions
3 points	6-10 collisions
1 point	1-5 collisions

3.1.2 Comfort = 30 points

Pathways that include projects that make walking more comfortable and easier to navigate to/from a station, or to an adjacent station and likely used by Metro customers transferring to/from the Purple Line could earn up to 30 points.

10 points	Landscaping and shade
8 points	Bus stop enhancement
6 points	Wayfinding signage
6 points	Street furniture

3.1.3 Community Input = 25 points

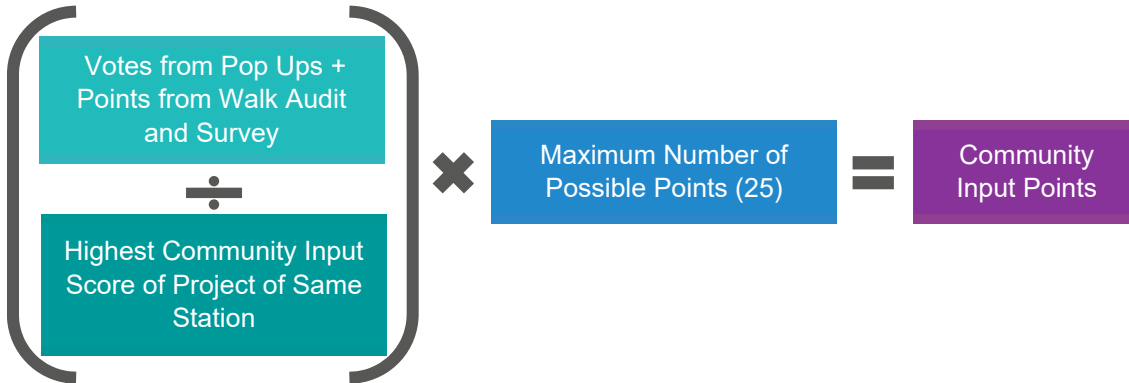
Community input was solicited through online surveys, walk audits, and pop-up community events. At the pop-up events participants indicated where in each station area they would like to see pedestrian improvements. These votes have then been grouped by street and the total number of votes per street has been added together. Projects identified through walk audits could earn an additional 5 points. If an improvement was deemed as one of the top three most important improvements for that particular station based on the survey responses from question #11 (see Section 2.6 Community Survey), that improvement could receive an additional 5 points.

Since projects for pedestrians are grouped by streets, the total community input score per street (votes from the pop-up events plus any additional points) is added together and the street with the highest community input score is given the maximum 25 points with other streets scored proportionally. The weighting of community input is self-contained within each station since attendance and amount of input varied from event to event. For example, the community input

score from the Westwood/UCLA station would not be used to compare with the community input score of Century City station.

For example, if the street in question has a combined community input score of 46 points, and the highest community input score is 82, then the street in question would be given $(46 \div 82 \times 25 = 14)$ (or 14 points. Figure 8 illustrates this formula.

Figure 8: Community Input Scoring Formula



5 points	Proposed during Walk Audits
5 points	If included in top 3 “most important” improvements from Survey question #11
# Votes	Votes during Pop-Ups

3.1.4 Connectivity = 15 points

This category recognizes the importance of providing pathways with the most direct connections to a station. Taking into account that all Metro customers must use a primary street, like Wilshire Boulevard, to reach a station entrance, projects located on a primary street will receive a maximum of 10 points. Other important connectivity aspects include connections to major destinations and pathways that decrease and maintain walking distances to destinations within a half-mile such as cut-through paths. These two criteria could each earn 2.5 points. Major destinations were identified, mapped, and categorized as either open space, art, attraction, education, public, and shopping. Pathways that were considered as a cut-through from a primary street were considered to have decreased the walking distance.

10 points	Primary street
2.5 points	Connects to major destination
2.5 points	Decreases walking distance to destinations in ½ mile

3.2 Sample Scoring Matrix

The scoring system described was tested for Wilshire/Rodeo Station which is included as a sample matrix for Project for Pedestrians. The matrix includes:

- Projects organized by street
- Project number, icon, and type
- Location
- Cross Street/Limits
- Safety Points
- Comfort Points
- Community Input Points
- Connectivity Points
- Total Points

The scoring revealed that pedestrian improvements that are on a primary street (Wilshire Boulevard and Beverly Drive) and that focused on increasing comfort scored higher than other projects from a technical and accessibility standpoint. The Pedestrian Projects Sample Matrix is shown in Figure 9.

Figure 9: Sample Projects for Pedestrians Scoring Matrix

4 Wheels Project Scoring

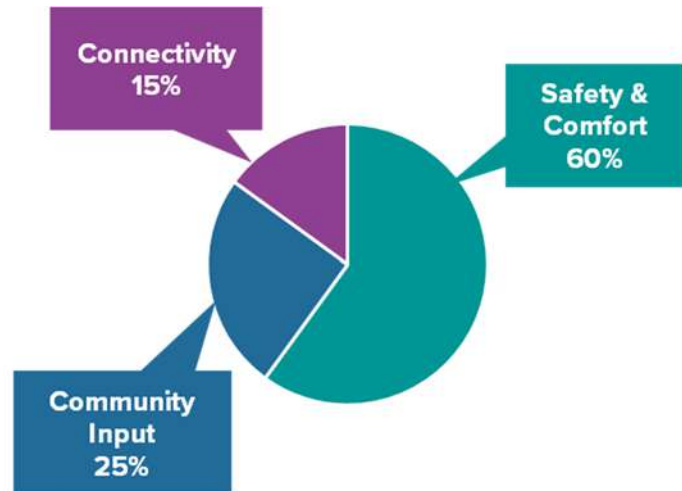
Similar project prioritization methodology from the East San Fernando Valley FLM Planning project were reviewed to develop a scoring system appropriate for the Purple Line FLM project. Major differences in scoring include the nature of the wheels projects that are being proposed, such as bicycle-friendly intersections and storage amenities, the connectivity aspects and characteristics of the proposed projects, and the way community input was gathered. The scoring system will convey project prioritization from a technical standpoint and the projects themselves would be subject to coordination with local jurisdictions, available funding, and Metro Board direction.

4.1 Scoring Criteria and Methodology

Three criteria will be used for scoring wheel projects: Safety and Comfort, Community Input, and Connectivity as shown in Figure 10.

“Safety and comfort” were given the greatest weight which are inseparable when planning for bike and wheel access to stations as explained in the National Association of City Transportation Officials (NACTO) “Designing for All Ages & Abilities: Contextual Guidance for High-Comfort Bicycle Facilities” (December 2017). Community Input received the second highest weight. Connectivity was given less weight than other the other categories, since all wheels projects being proposed are meant to increase connectivity to the transit system and bicycle network. The maximum score a project could earn is 100 points. The weighting of categories and specific criteria are as follows:

Figure 10: Wheel Projects Weighting



4.1.1 Safety and Comfort = 60 points

SWITRS Collision Data = 10 points

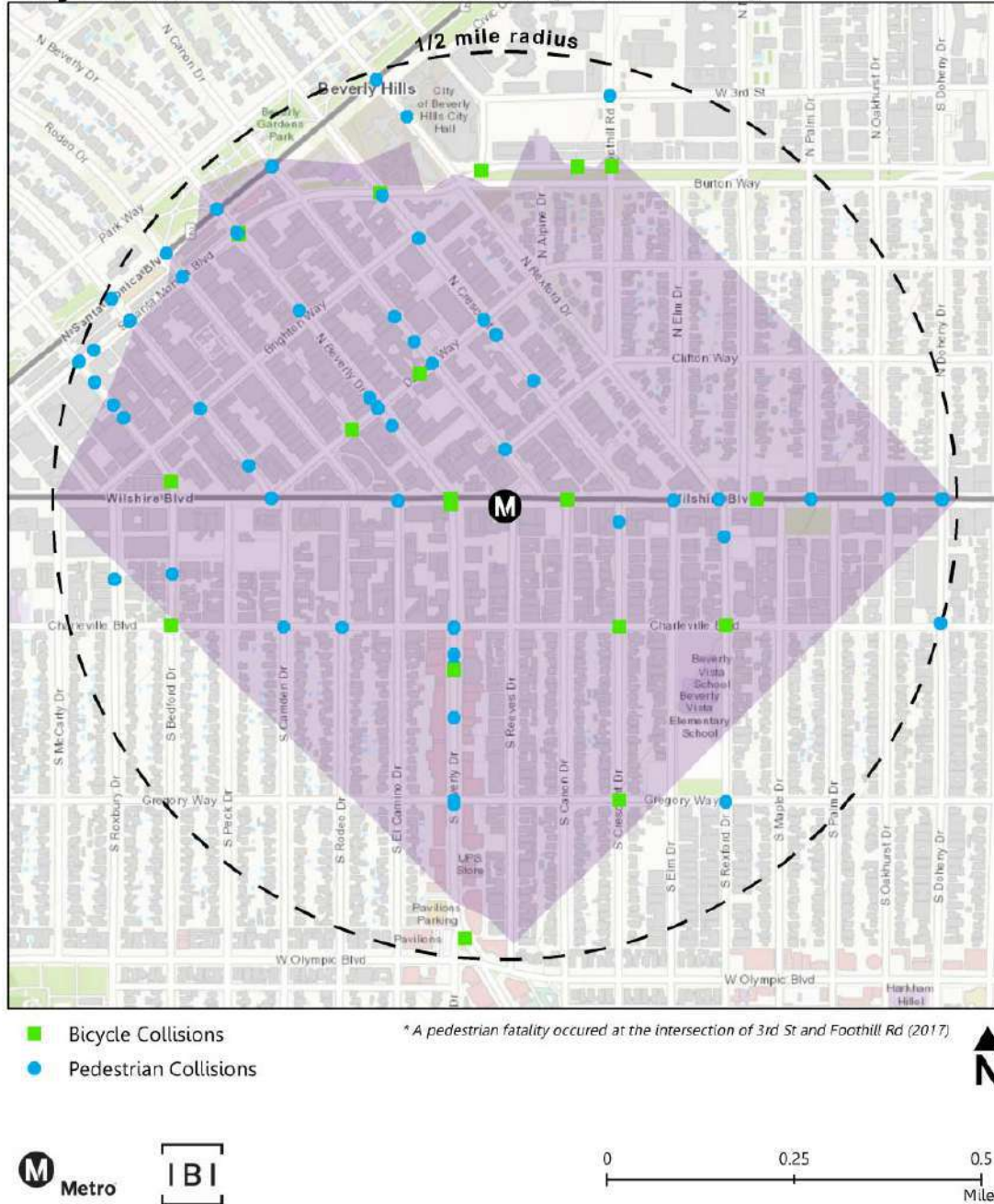
The number of bicycle-motor vehicles collisions per data from SWITRS on a street segment during the past five years that would potentially be reduced by implementing a project on that street segment could earn up to 10 points

10 points	Greater than 5 collisions
5 points	4-5 collisions
3 points	2-3 collisions
1 point	1 collision

The project team developed collision data summary maps to inform the scoring within this category, as shown in Figure 11.

Figure 11: SWITRS Collision Data for Wilshire/Rodeo

Wilshire / Rodeo Station Bicycle and Pedestrian Collisions (2013 - 2017)



Controlled Crossings = 10 points

Vital component to assure bicyclists and other wheeled customers can navigate a safe pathway to their station. If all the project’s pathway arterial street crossings would be controlled, they could earn up to 10 points. The FLM pathway arterials are defined in the pathway maps, shown in the example in Figure 13.

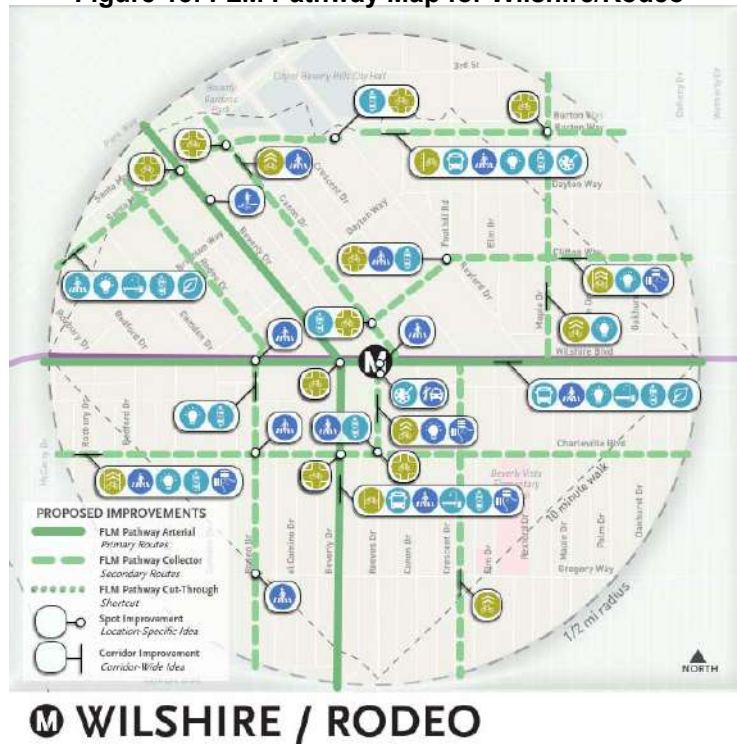
10 points	Yes
0 points	No

Bicycle Amenities = 20 points

Important support facilities that promote the use of bicycles and other wheeled modes of transportation through the safest and most secure amenities could earn up to 20 points

10 points	Bicycle hub /storage (racks, lockers)
10 points	Bicycle friendly intersection

Figure 13: FLM Pathway Map for Wilshire/Rodeo



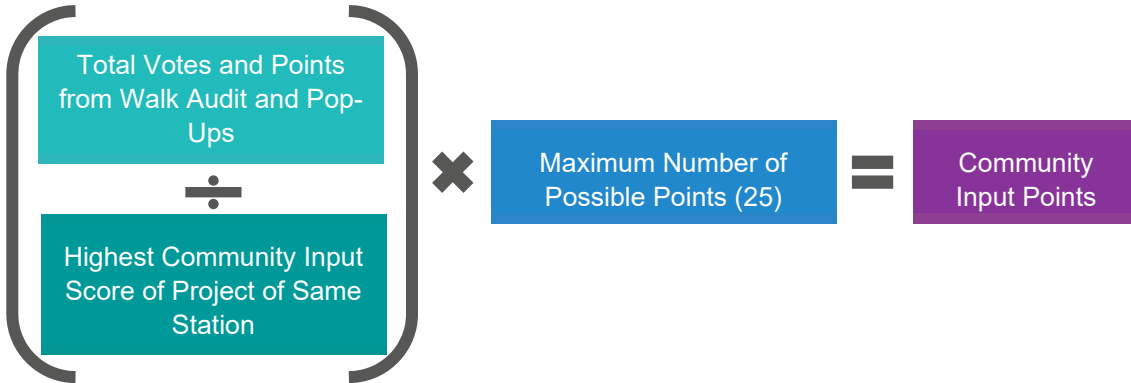
4.1.2 Community Input = 25 points

Community input was solicited through online surveys, walk audits, and pop-up community events. At the pop-up events participants indicated where in each station area they would like to see bicycle improvements. These votes have then been grouped by street and the total number of votes per street has been added together. Projects identified through walk audits could earn an additional 5 points. If an improvement was deemed as one of the top three most important improvements for that particular station based on the survey responses from question #11 (see Section 2.6 Community Survey), that improvement would receive an additional 5 points.

Since projects for wheels are grouped by streets, the total community input score per street is added together and the street with the highest community input score is given the maximum 25 points with other streets scored proportionally. The weighting of community input is self-contained within each station since attendance and amount of input varied from event to event. For example, the community input score from the Westwood/UCLA station would not be used to compare with the community input score of Century City station.

For example, if the street in question has a combined community input score of 46 points, and the highest community input score is 82, then the street in question would be given $(46 \div 82) \times 25 = 14$ (or 14 points). Figure 14 illustrates this formula.

Figure 14: Community Input Scoring Formula



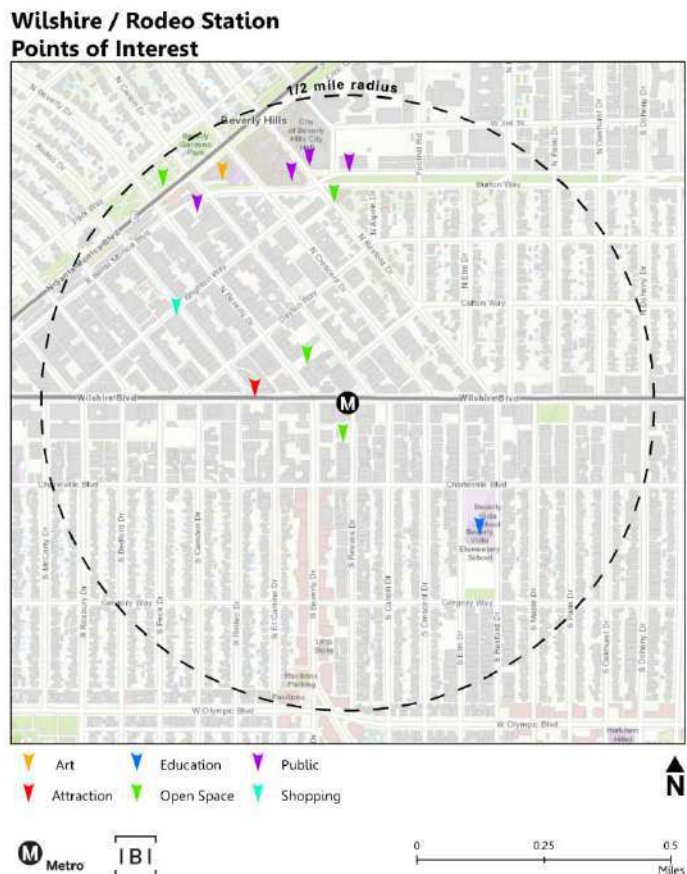
5 points	Proposed during Walk Audits
5 points	If included in top 3 “most important” improvements from Survey question #11
# Votes	Votes during Pop-Ups

4.1.3 Connectivity = 15 points

This score recognizes the importance of completing the pathway network leading to a station. Projects that provide more direct connections to the station and to existing/planned bicycle network earn the highest number of points and could be up to a total of 15 points. Connections to major destination were assessed by mapping major destinations such as regional parks, universities, civic centers, regional hospitals, schools, etc. A summary map to inform scoring in this category is shown in Figure 15.

5 points	Primary street
5 points	Connects to the station
3 points	Connects to bicycle network: If connects to existing facility
2 points	If connects to planned facility
2 points	Connects to a major destination

Figure 15: Points of Interest for Wilshire/Rodeo



4.2 Sample Scoring Matrix

The scoring system described was tested for Wilshire/Rodeo Station, which is included as a sample matrix for Projects for Wheels.

The matrix shows that projects that had significant safety and comfort improvements were of the highest priority. These also correlate with those that were highly suggested through community input. The Wheels Projects Sample Matrix is shown in Figure 16.

Figure 16: Sample Projects for Wheels Scoring Matrix

5 Next Steps

Once this Prioritization Methodology Memo is finalized and approved, the Design Team will develop scores for the four Purple Line Westside Extension Phase II and III stations' pedestrian and wheels projects. It is recommended that each station's final prioritization matrices be reviewed by Metro, the Cities of Los Angeles and Beverly Hills, the Veterans Affairs, and other affected stakeholders. The eight resulting project prioritization matrices will provide a record of technical evaluation and prioritization to accompany future discussions of implementation and funding with the appropriate stakeholders and jurisdictions.

Although only certain FLM projects may be ranked highly, this does not mean other projects are not also important; it only means that Metro should prioritize items that provide the best "bang for the buck." First/last mile and active transportation improvements frequently receive very limited funding, and it is the intent of this memo to help Metro focus on FLM projects representing the highest possible benefit.

Next stop: connected communities.

PROJECT PRIORITIZATION METHODOLOGY

Purple Line Extension First/Last Mile Plan - Sections 2 & 3



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MAY 2020

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1 Introduction

The Purple Line First/Last Mile (FLM) planning process is focused on providing safe and inviting pedestrian and bicycle access to four new heavy rail transit stations as part of the Purple Line Extension (PLE Sections 2 & 3). In the memo titled *Purple Line FLM Scoring Methodology*, FLM projects were identified and scored for pedestrian and bicycle improvements in order to arrive at a list of prioritized FLM projects for each of the four stations. This memo builds off that scoring list by selecting projects for each station that will be moved forward to 30% design and environmental clearance based on available funding. The methodology used in this memo was developed through an iterative process of testing different approaches. In project selection, the focus was to fully fund primary pathways as a way to maintain more complete, integrated walk improvements for all stations and for more holistic connectivity for bicycle projects. The following provides an overview of the assumptions and methodology used in the project selection process, resulting in a project list that represents the core FLM needs for each station.

1.1 Assumptions

The following budget assumptions were used in the project selection process:

- Average corridor walk-bicycle (within ½ mile) split based on total project costs: 77% (Walk) and 23% (Bicycle)
- Total corridor budget: \$40 million (\$10 million/Station x 4 Stations)
- Total corridor budget (minus soft costs assumed to be 38% of total budget): \$24,800,000
- Total walk budget (using average corridor split): \$19,096,000
- Total bicycle budget (using average corridor split): \$5,704,000

1.2 Development of Project Selection Methodology

The purpose of a project selection methodology is to identify viable projects that can bring the most FLM benefits to the future rail transit stations within a 1/2-mile radius. In the development of this methodology, multiple iterations were tested and reviewed to assess their applicability in selecting FLM projects. This included reviewing methodologies applied to other Metro FLM planning projects, such as the East San Fernando Valley Transit Corridor (ESFV) FLM Plan. The ESFV FLM Plan apportions projects through need-based criteria which consider the proportion of Equity-Focused Communities (EFCs) and station overlap. See Appendix A for a description of the various methodologies tested. Based on this review, the following walk and bicycle budget distributions were developed and applied to the PLE 2 & 3 stations.

1.2.1 Walk Budget Distribution

In other Metro FLM planning projects, the total walk budget was distributed to each station based on the station area proportion within the transit corridor and Metro's Equity-Focused Census Tracts. In these scenarios, the transit corridor had overlapping station areas and proposed projects, so a station's proportioned walk budget was generally able to cover all of the proposed project costs within a station area. However, the PLE station areas are spread apart with no overlap except between Westwood/UCLA and Westwood/VA station, so projects proposed within each station area also did not overlap. The proposed projects for each of the station areas were also noticeably different in scale. For example, Westwood/UCLA had

significantly more projects compared to other station areas due to the density of its Pathway Network.

Transit ridership was also examined as a potential criterion as ridership numbers vary greatly between stations. Based on the PLE EIS/EIR estimated future (2035 boardings. Westwood/UCLA, which would serve tens of thousands of university employees and students has an 11,967 estimated daily station boardings. Wilshire/Rodeo has an estimated 4,241. The FLM Plans for the station areas were noticeably different in scale: Westwood/UCLA had significantly more proposed projects compared to other station areas. Using ridership as a criterion would result in a larger budget allocation for Westwood/UCLA.

Therefore, all walk projects located on primary pathways were selected to be fully funded rather than proportioning a walk budget to each station and only selecting walk projects that could fall within that station's budget. This was because the marginal benefit of an integrated set of improvements was higher than the marginal cost of a budget overrun in terms of design work, which would cost 3.8% of the total project implementation cost. This approach was also chosen because of the relative absence of strong need-based criteria for budget reappropriation as compared to other transit corridors with a higher portion of Equity Focused Census Tracts.

1.2.2 Bicycle Budget Distribution

In other Metro FLM planning projects, the bicycle budget was distributed by funding the highest scoring projects in the technical project prioritization exercise until the bicycle budget was exhausted. However, for the PLE stations it was decided to fund all bike lane projects within the ½-mile access shed of each station, excluding bicycle-friendly intersections and bicycle hubs. This ensures that people accessing the station by bike will have a safe and comfortable network of travel paths throughout the station area. It is also expected that there will be synergies from walk projects on primary and busy corridors that can benefit bicyclists. Bicycle hubs were excluded since these improvements can be implemented in later phases, or could be pursued through different delivery models, such as a public-private partnership.

2 Walk Project Selection

This section identifies the walk projects on primary streets that were that were selected for each station to move forward into 30% design. The total project costs for funding all primary streets is \$21,884,540. Since the allocated budget for walk projects is \$19,096,000, there is a budget overrun of \$2,788,540. In the interest of keeping corridor projects together to provide more “complete” improvements, this overrun was deemed permissible at this phase of design. As the project progresses into 30% design, this represents an additional up-front cost of \$105,965 in design fees. This approach allows corridor projects to remain “complete” without sacrificing or choosing projects that may be left out, resulting in missed opportunities to fund complete corridors in the event that funding opportunities arise. The following sections list the projects selected for each station area.

2.1 Wilshire/Rodeo Walk Projects

Table 2.1 shows the primary streets that have been selected and their associated costs for the Wilshire/Rodeo station area.

Table 2.1: Selected Walk Projects for Wilshire/Rodeo Station

Wilshire/Rodeo Station - Projects for Pedestrians				
#	Type	Cross Street / Limits	Score	Total Cost
Projects on Wilshire Blvd (Arterial)				
1	New or improved crosswalk	Linden Dr to Wetherly Dr	80.5	\$ 119,250
2	Bus stop improvements	Linden Dr to Wetherly Dr		\$ 855,000
3	Ped/bike lighting	Linden Dr to Wetherly Dr		\$ 1,160,000
4	Street furniture	Linden Dr to Wetherly Dr		\$ 174,000
5	Wayfinding	Linden Dr to Wetherly Dr		\$ 16,200
6	Landscaping and shade	Linden Dr to Wetherly Dr		\$ 680,000
			Subtotal	\$ 3,004,450
Projects on Beverly Dr. (Arterial)				
7	Bulb-outs	Park Way to Olympic Blvd	65.4	\$ 960,000
8	New or improved crosswalk	Park Way to Olympic Blvd		\$ 36,000
9	Improved sidewalks	Park Way to Olympic Blvd		\$ 209,040
10	Bus stop improvements	Park Way to Olympic Blvd		\$ 405,000
11	Street furniture	Park Way to Olympic Blvd		\$ 156,000
12	Wayfinding	Park Way to Olympic Blvd		\$ 14,400
			Subtotal	\$ 1,780,440
Station Total Walk Project Costs				\$ 4,784,890

2.2 Century City/Constellation Walk Projects

Table 2.2 shows the primary streets that have been selected and their associated costs for the Century City station area.

Table 2.2: Selected Walk Projects for Century City Station

Century City Station - Projects for Pedestrians				
#	Type	Cross Street / Limits	Score	Total Cost
Projects on Constellation Blvd (Arterial)				
1	New or improved sidewalk	Century Park East and Century Park parking garage entrance	83.9	\$ 429,000.00
2	Bus stop improvements	Avenue of the Stars		\$ 315,000.00
3	Ped/bike lighting	Around Station		\$ 440,000.00
4	Wayfinding	Century Park East to Century Park West		\$ 6,300.00
5	Landscaping and shade	Avenue of the Stars		\$ 120,000.00
6	Traffic Calming	Century Park East to Century Park West		\$ 480,000.00
7	New or improved crosswalk	Century Park East to Century Park West		\$ 18,000.00
			Subtotal	\$ 1,808,300
Projects on Avenue of the Stars (Arterial)				
8	New or improved crosswalk	Constellation	79.6	\$ 31,500.00
9	Traffic Calming	Along corridor		\$ 720,000.00
10	Ped/bike lighting	Around Station		\$ 1,000,000.00
11	Bus stop improvements	Constellation Blvd and Santa Monica Blvd		\$ 90,000.00
12	Street furniture	Near station		\$ 150,000.00
13	Landscaping and shade	Constellation Blvd		\$ 200,000.00
14	Wayfinding	To station and popular attractions		\$ 13,500.00
			Subtotal	\$ 2,205,000
Station Total Walk Project Costs				\$ 4,013,300

2.3 Westwood/UCLA Walk Projects

Table 2.3 shows the primary streets that have been selected and their associated costs for the Westwood/UCLA station area.

Table 2.3: Selected Walk Projects for Westwood/UCLA Station

Westwood/UCLA Station - Projects for Pedestrians				
#	Type	Cross Street / Limits	Score	Total Cost
Projects on Wilshire Blvd (Arterial)				
1	Bus stop improvements	Veteran Ave, Westwood Blvd, Glendon Ave	87.5	\$ 585,000.00
2	Ped and Bike Lighting	Along corridor		\$ 1,060,000.00
3	Street Furniture	At controlled intersections		\$ 159,000.00
4	Wayfinding	Veteran Ave, Glendon Ave, IPIC, California, and the Longford		\$ 14,400.00
5	Landscaping and Shade	South side of the street and street corners		\$ 280,000.00
6	New/Improved Crosswalks	Westwood Blvd, Glendon Ave, Malcom Ave, I-405 on-ramp		\$ 22,500.00
7	New/Improved Sidewalks	South side of Wilshire Blvd		\$ 1,378,000.00
			Subtotal	\$ 3,498,900.00
Projects on Westwood Blvd (Arterial)				
8	New/Improved Crosswalks	Wilshire Blvd, Kinross Ave, Weyburn Ave, Ashton Ave	80.4	\$ 54,000.00
9	Bus stop improvements	Wilshire Blvd		\$ 720,000.00
10	Ped and Bike Lighting	Along corridor		\$ 1,000,000.00
11	Street Furniture	Corners and midblock		\$ 150,000.00
12	Wayfinding	Kinross Ave, Lindbrook Dr, Weyburn Ave, Le Conte Ave		\$ 14,400.00
13	New/Improved Sidewalks			\$ 1,300,000.00
14	Landscaping and Shade	South of Wilshire Blvd		\$ 400,000.00
			Subtotal	\$ 3,638,400
Projects on Gayley Ave (Arterial)				
15	New/Improved Crosswalks	Lindbrook Dr, Kinross Ave, Weyburn Ave, Le Conte Ave, new midblock x-ing at Levering Ave, scramble at Wilshire Blvd	75.9	\$ 29,250.00
16	Bulb Outs	Lindbrook Dr, Kinross Ave, Weyburn Ave		\$ 720,000.00

17	New/Improved Sidewalks	Consider decorative paving seen on Lindbrook/Westwood	\$	884,000.00
18	Ped and Bike Lighting	Along corridor	\$	204,000.00
19	Wayfinding	At each intersection	\$	9,000.00
20	Bus Stop Improvements	North of Le Conte Ave	\$	90,000.00
Subtotal			\$	1,976,250
Station Total Walk Project Costs			\$	9,113,550

2.4 Westwood/VA Walk Projects

Table 2.4 shows the primary streets that have been selected and their associated costs for the Westwood/VA station area.

Table 2.4: Selected Walk Projects for Westwood/VA Station

Westwood/VA Station - Projects for Pedestrians				
#	Type	Cross Street / Limits	Score	Total Cost
Projects on Sawtelle Blvd/Bonsall Ave* (Cut-through)				
1	New or improved crosswalks	Nimitz Ave to Ohio Ave	82.4	\$ 36,000.00
2	Bus stop improvements	Nimitz Ave to Ohio Ave		\$ 180,000.00
3	Wayfinding	Nimitz Ave to Ohio Ave		\$ 13,500.00
4	Street furniture	Nimitz Ave to Ohio Ave		\$ 150,000.00
5	Landscaping and shade	Nimitz Ave to Ohio Ave		\$ 240,000.00
6	New/Improved Sidewalks	Nimitz Ave to Ohio Ave		\$ 845,000.00
7	Ped/bike lighting	Nimitz Ave to Ohio Ave		\$ 1,000,000.00
Subtotal				\$ 2,464,500.00
Projects on Wilshire Blvd (Arterial)				
8	New or improved crosswalks	Barrington Ave to I-405	74.5	\$ 22,500.00
9	Bus stop improvements	Barrington Ave to I-405		\$ 45,000.00
10	Ped/bike lighting	Barrington Ave to I-405		\$ 820,000.00
11	Wayfinding	Barrington Ave to I-405		\$ 10,800.00
12	Landscaping and shade	Barrington Ave to I-405		\$ 160,000.00
Subtotal				\$ 1,058,300.00
Station Total Walk Project Costs				\$ 3,522,800.00

*Note: Sawtelle Blvd/Bonsall Ave is not technically a primary pathway but is considered as such since it is a major north-south path for pedestrians and bicyclists that provides direct connections to the station and many destinations on the VA campus.

3 Bicycle Project Selection

This section identifies the bicycle projects that were that were selected for each station to move forward into 30% design. The total project costs for funding all bicycle lane projects is \$5,867,065. Since the allocated budget for bicycle projects is \$5,704,000, there is a budget overrun of \$163,065. As the projects progress into 30% design, this represents an additional up-front cost of \$6,196 in design fees. The following sections list the projects selected for each station area.

3.1 Wilshire/Rodeo Bicycle Projects

Table 3.1 shows the bicycle lane projects that have been selected and their associated costs for the Wilshire/Rodeo station area.

Table 3.1: Selected Bicycle Projects for Wilshire/Rodeo Station

Purple Line Westside Extension Phases 2 and 3 - Projects for Bicycles				
#	Type	Cross Street/ Limits	Score	Total Cost
Projects on Beverly Dr (Arterial)				
1	Class IV protected bike lane	Park Way to Olympic Blvd	85.0	\$ 436,500
Projects on Burton Way (Collector)				
2	Class IV protected bike lane	Rexford Dr to San Vicente Blvd	56.3	\$ 207,000
Projects on Clifton Way (Collector)				
3	Class III bike boulevard with street calming	Canon Dr to Doheny Dr	50.0	\$ 148,500
Projects on Charleville Blvd (Collector)				
4	Class IV protected bike lane	McCarty Dr to Robertson Blvd	50.0	\$ 194,000
Projects on S. Santa Monica Blvd (Collector)				
5	Class III bike boulevard with street calming	Rodeo Dr to Rexford	31.7	\$ 55,400
Projects on Canon Dr (Collector)				
6	Class II bike lane	Santa Monica Blvd to Wilshire Blvd	28.0	\$ 34,500
Projects on Crescent Dr (Collector)				
7	Class Iii bike boulevard with street calming	Santa Monica Blvd to Olympic Blvd	26.3	\$ 42,173
Projects on Roxbury Dr (Collector)				
8	Class III Bike Boulevard with street calming	Santa Monica Blvd to Olympic Blvd	19.0	\$ 38,850
Projects on Reeves Dr (Collector)				
9	Class III Bike Boulevard with street calming	Wilshire Blvd to Charleville Blvd	17.0	\$ 41,800
Station Total Walk Project Costs				\$ 1,198,723

3.2 Century City Bicycle Projects

Table 3.2 shows the bicycle lane projects that have been selected and their associated costs for the Century City station area.

Table 3.2: Selected Bicycle Projects for Century City Station

Purple Line Westside Extension Phases 2 and 3 - Projects for Bicycles				
#	Type	Cross Street/ Limits	Score	Total Cost
Projects on Constellation Blvd (Arterial)				
1	Class IV protected bike lane	Century Park E to Century Park W	86.2	\$ 189,000
Projects on Santa Monica Blvd (Arterial)				
2	Class IV protected bike lane	Pandora Ave to Wilshire Blvd	80.2	\$ 359,100
Projects on Avenue of the Stars (Arterial)				
3	Class IV protected bike lane	Santa Monica Blvd to Pico Blvd	78.6	\$ 405,000
Projects on Century Park East (Collector)				
4	Class IV protected bike lane	Santa Monica Blvd to Pico Blvd	72.0	\$ 405,000
Projects on Century Park West (Collector)				
5	Class IV protected bike lane	Along corridor	42.4	\$ 238,500
Projects on Club View Dr (Collector)				
6	Class III bike boulevard with street calming	Along corridor	35.0	\$ 2,400
Projects on Spaulding Dr (Collector)				
7	Class III bike boulevard with street calming	Wilshire Blvd to Olympic Blvd	25.0	\$ 143,000
Projects on Moreno Dr (Collector)				
8	Class II bike lane	Along Corridor	25.0	\$ 24,750
Projects on Solar Way (Collector)				
9	Class III Sharrows	Century Park East	17.0	\$ 1,200
Projects on Warnall Ave (Collector)				
10	Class III Bike Boulevard with street calming	Along corridor	15.0	\$ 95,260
Station Total Walk Project Costs				\$ 1,863,210

3.3 Westwood/UCLA Bicycle Projects

Table 3.3 shows the bicycle lane projects that have been selected and their associated costs for the Westwood/UCLA station area.

Table 3.3: Selected Bicycle Projects for Westwood/UCLA Station

Purple Line Westside Extension Phases 2 and 3 - Projects for Bicycles				
#	Type	Cross Street/ Limits	Score	Total Cost
Projects on Westwood Blvd (Arterial)				
1	Class IV protected bike lane	Le Conte Ave to Massachusetts Ave	90.0	\$ 426,136
Projects on Ohio Ave (Collector)				
2	Class IV protected bike lane	Westgate Ave to Westwood Blvd	66.7	\$ 193,500
3	Class III bike boulevard with street calming	Westwood Blvd to Rochester Ave		\$ 99,605
Projects on Gayley Ave (Arterial)				
4	Class IV protected bike lane	Wilshire Blvd to Veteran Ave	65.6	\$ 289,773
Projects on Veteran Ave (Collector)				
5	Class II bike lane	Rochester Ave to Gayley Ave	44.6	\$ 54,750
Projects on Rochester Ave (Collector)				
6	Class III bike boulevard with street calming	East from Veteran Ave	44.0	\$ 183,150
Projects on Lindbrook Dr (Collector)				
7	Class III bike boulevard with street calming	Hilgard Ave to Westholme Ave	37.8	\$ 102,190
8	Class II bike lane	Gayley Ave to Hilgard Ave		\$ 15,625
Projects on Broxton Ave (Collector)				
9	Class III Bike Boulevard with street calming	Le Conte Ave to Kinross Ave	33.3	\$ 2,400
Projects on Midvale/Kelton Ave (Collector)				
10	Class III bike boulevard with street calming	Wilshire Blvd to Santa Monica Blvd	31.7	\$ 170,500
Projects on Weyburn PI (Collector)				
11	Class III bike boulevard with street calming	Between Strathmore Dr and Wilshire Blvd	25.0	\$ 7,200
Projects on Hilgard Ave (Collector)				
12	Class II bike lane	Lindbrook Dr to Sunset	19.0	\$ 19,886
13	Class III Bike Boulevard with street calming	Wilshire Blvd to Ohio Ave	8.0	\$ 97,900
Station Total Walk Project Costs				\$ 1,662,615

3.4 Westwood/VA Bicycle Projects

Table 3.4 shows the bicycle lane projects that have been selected and their associated costs for the Westwood/VA station area.

Table 3.4: Selected Bicycle Projects for Westwood/VA Station

Purple Line Westside Extension Phases 2 and 3 - Projects for Bicycles				
#	Type	Cross Street/ Limits	Score	Total Cost
Projects on Ohio Ave (Collector)				
1	Class IV protected bike lane	Barrington Ave to Sawtelle Blvd	70.7	\$ 140,000
Projects on Sawtelle/Blvd/Bonsall Ave (Cut-through)				
2	Class II bike lane	South of Wilshire Blvd	70.5	\$ 37,642
3	Class I Multi-Use Path	North of Wilshire Blvd		\$ 712,121
Projects on Federal Ave/San Vicente Blvd/Bringham Ave (Collector)				
4	Class II bike lane	Ohio Ave to Wilshire Blvd	58.6	\$ 35,400
5	Class IV protected bike lane	Wilshire Blvd to Darlington Ave		\$ 157,500
Projects on Constitution Ave (Cut-through)				
6	Class II bike lane	Sepulveda Blvd to Bonsall Ave	33.0	\$ 24,148
Projects on New Pershing Ave (Cut-through)				
7	Class II bike lane	Along corridor	32.0	\$ 21,306
Projects on Davis Ave (Cut-through)				
8	Class III Bike Boulevard with street calming	Along corridor	22.0	\$ 2,400
Projects on Eisenhower Ave (Cut-through)				
9	Class III Bike Boulevard with street calming	Along corridor	15.0	\$ 6,000
Projects on Mayfield Ave (Arterial)				
10	Class III Bike Boulevard with street calming	Along corridor	12.0	\$ 6,000
Station Total Walk Project Costs				\$ 1,142,517

4 Conclusion

The resulting walk and bicycle projects emerging from these methodologies are recommended to progress to 30% design. While the total costs of these projects exceed the allocated target budgets, it would be an advantage for the projects and local jurisdictions to see the complete list of projects put forth for implementation rather than a shorter list that falls under budget. This also allows for the opportunity to design and environmentally clear complete projects if outside funding and partnering opportunities become available. Additionally, this aims to maximize the ability to take advantage of the local city match of 3 percent as these are qualified projects under this policy.

In the next phase, these project lists will be shared with local jurisdictions for feedback which can further adjust the projects to account for local priorities, with the goal of having a final project list that fulfills FLM needs while having affirmative concurrence from jurisdictions who implement the projects after the 30% design phase.

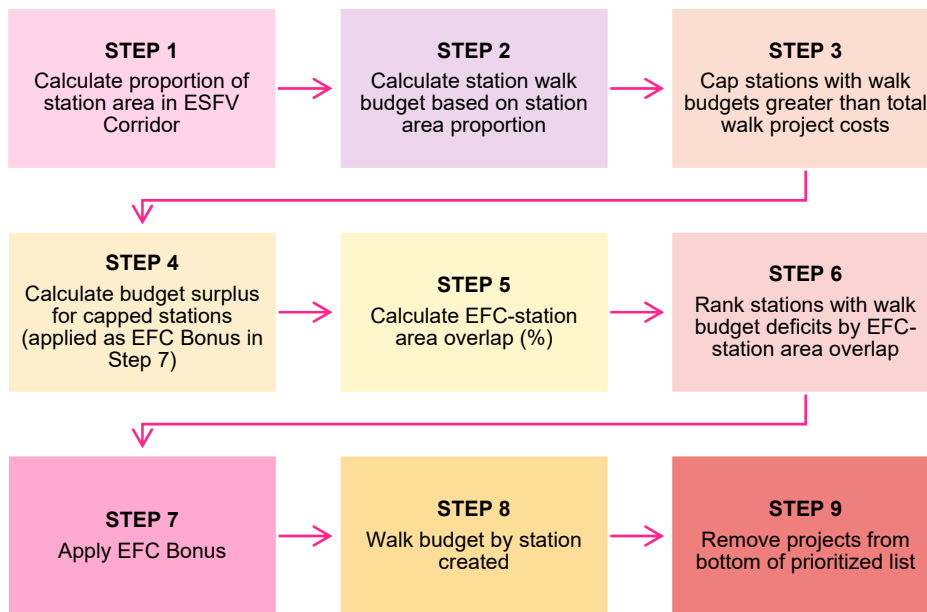
Appendix A

A.1 Summary of Project Selection Methodologies Tested

A.1.1 East San Fernando Valley Method

The first methodology that was tested was the one applied to the East San Fernando Valley (ESFV Transit Corridor project which utilized a station area proportion and equity focus communities (EFC approach. This is summarized in the flow chart below.

Figure A.1: ESFV Walk Budget Flow Chart

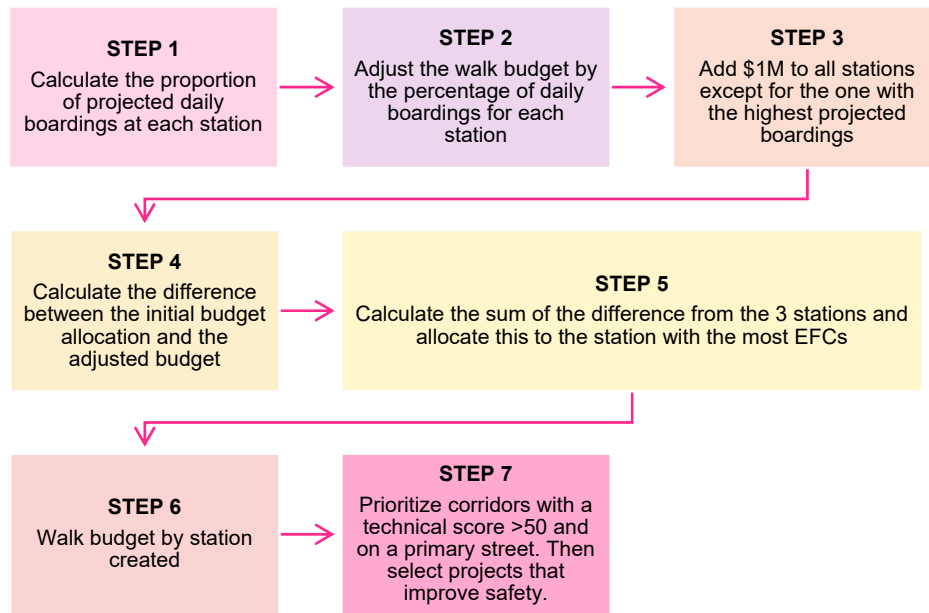


The results of this methodology applied on the PLE Sections 2 and 3 projects led to the elimination of the majority of corridors and improvements at each station. This was likely due to the larger scope of projects at the PLE Sections 2 and 3 stations when compared to the project lists of the ESFV project. As the ESFV project is a light rail transit corridor, stations are spaced much closer together and may have overlapping improvements that could be shared among stations. In the interest of keeping all corridor improvements together within stations, a single PLE station corridor was often found to exceed the total walk budget that was identified in Step 8.

A.1.2 Alternative Methods

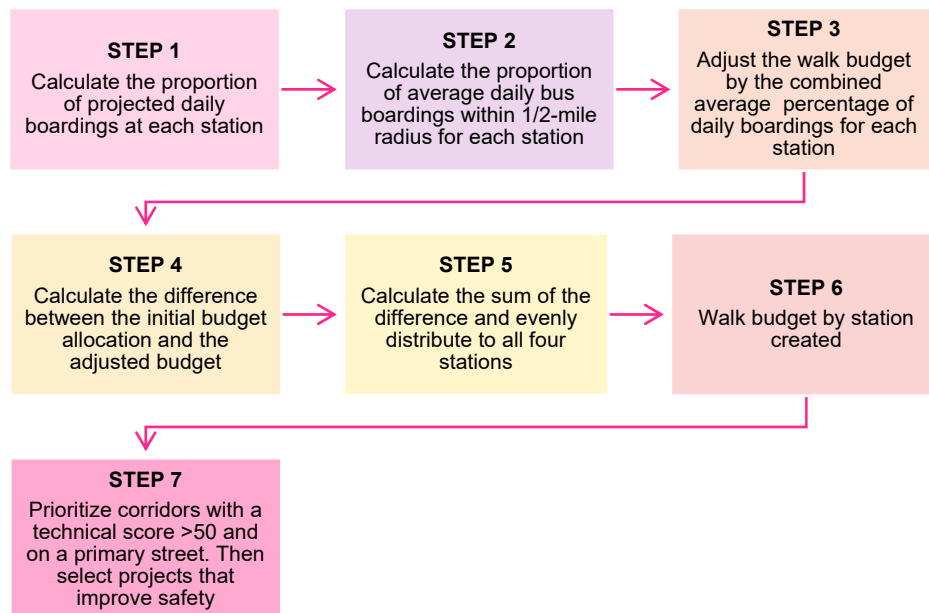
Alternative methodologies were then developed and tested for their applicability to PLE stations. These methods are summarized in the flow charts below.

Figure A.2: Alternative Methodology 1



The incorporation of projected daily boardings was intended to reward stations which are presumed to be more heavily used when open. This, combined with the EFC bonus sum, left the other stations at a disadvantage. To address this, the team included current average daily bus boardings at stops within 1/2-mile radius of the stations as part of Steps 1 and 2 of this test methodology.

Figure A.3: Alternative Methodology 2



This methodology allowed for the consideration of current and future needs of potentially transit-dependent populations, however the team felt it to be most prudent to take a simpler approach that could easily be adopted across future transit corridor projects

Los Angeles County
Metropolitan Transportation Authority

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Next stop: vibrant communities.

**First Last Mile Plan
Purple Line Extension Sections 2&3**

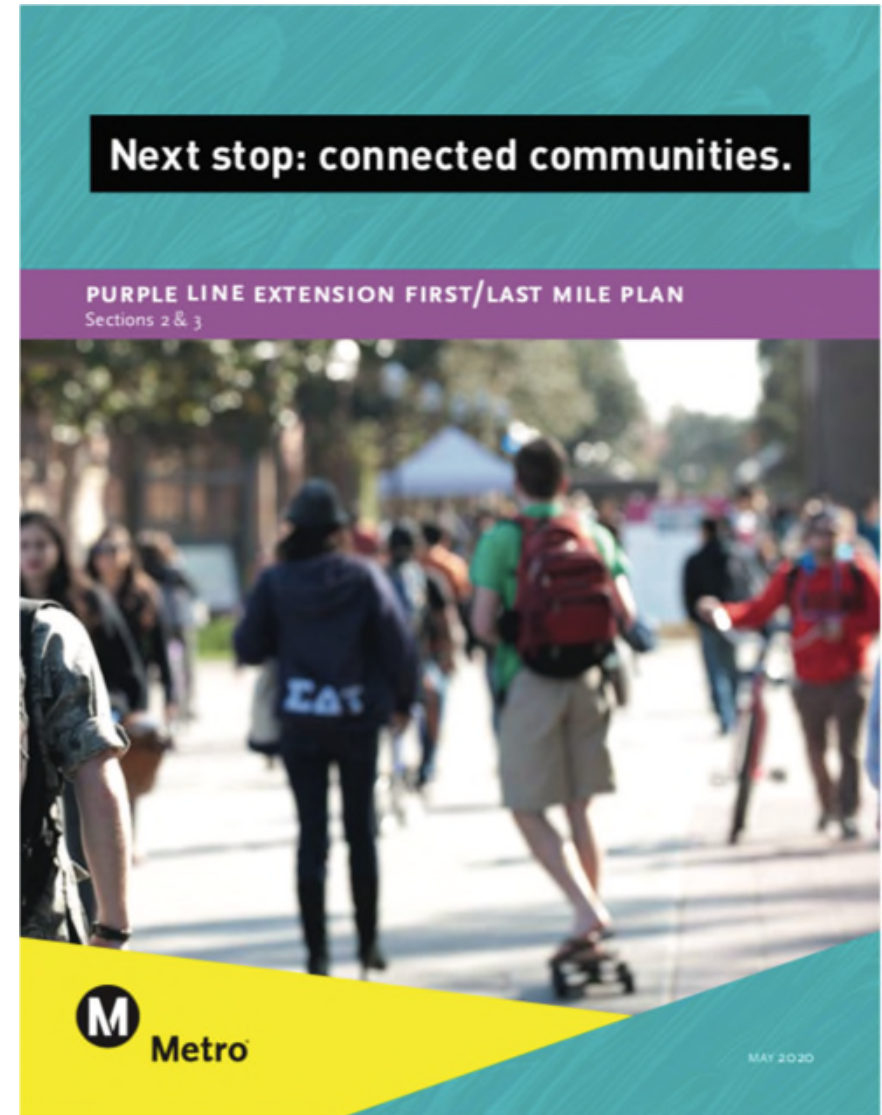
Planning and Programming Committee
May 20, 2020



Recommendation

CONSIDER:

- A. **ADOPTING** First/Last Mile Plan for Purple Line Extension Sections 2&3
- B. **DIRECTING** staff to return to the Board with implementation recommendations following completion of the First/Last Mile Guidelines



Background

First/Last Mile (FLM) Plans

- Section 2 Stations:
 - Wilshire/Rodeo
 - Century City/Constellation
- Section 3 Stations:
 - Westwood/UCLA
 - Westwood/VA Hospital



First/Last Mile Methodology and Process



Participatory Process



- Coordinated with large institutional stakeholders (UCLA and the Veterans Affairs hospital) along with jurisdictions
- Developed with community inputs at various touchpoints throughout the planning

Community Engagement Highlights

Engagement on overall Plan

- 7 public pop-up events
- Walk audits with 66 participants
- 21 stakeholder interviews
- 443 survey responses

Additional Westwood/UCLA focus

- Survey on preliminary project list
 - 12 responses
 - 45 comments
- 4 presentations/discussions with Neighborhood Councils, BID



First/Last Mile Plan Results

- The Plan resulted in project lists with pedestrian and bicycle improvements for each station area.
- Program of potential investments
 - Full plan: \$80.5 M
 - Subset of priority projects to be reported in upcoming item

**Board Report**

File #: 2020-0208, **File Type:** Program

Agenda Number: 9.

**PLANNING AND PROGRAMMING COMMITTEE
MAY 20, 2020**

SUBJECT: METRO AFFORDABLE TRANSIT CONNECTED HOUSING PROGRAM

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING revisions to the Metro Affordable Transit Connected Housing Program (MATCH Program), as further described in Attachment A; and
- B. AUTHORIZING the CEO or his designee to execute necessary agreements and amendments to agreements related to the MATCH Program.

ISSUE

Revisions to the MATCH Program are needed to expand flexibility and deployment of funds to support affordable housing. In August 2016, the Metro Board of Directors approved investing \$9,000,000 into the MATCH Program. After three years of implementing the MATCH Program, and in response to recent economic shock resulting from the COVID-19 health crisis, staff has identified several opportunities to improve the MATCH Program and maximize the deployment of resources to support the development and preservation of affordable housing units in Los Angeles County.

BACKGROUND

The MATCH Program's primary goal is to help neighborhoods near transit that are experiencing rising housing costs, resulting in the potential displacement of low-income households. When the Program was developed in 2016, it was envisioned that this goal would be achieved through two types of loans:

- *Predevelopment Loan:* Metro provides predevelopment financing for new affordable housing projects. Experienced developers with site control typically finish construction within 2-3 years of the predevelopment loan closing.
- *Housing + Transportation (H+T) Loan:* In the short term, the H+T Loan assists property owners/investors/developers to keep rents low in existing multi-family buildings that are near transit. In the long term, the H+T loan is meant to assist the property

owners/investors/developers in redeveloping the sites at a higher density and affordable rents.

MATCH LLC was formed in 2017 by Metro, Community Development Financial Institutions (“CDFI’s”) and funding partners (“Funding Partners”) to administer the MATCH Program’s revolving loan fund. The partners are composed of:

- *Funding Partners*: California Community Foundation (CCF), California Endowment (CE), and Weingart Foundation (WF);
- *CDFIs*: Low Income Investment Fund (LIIF), Local Initiatives Support Corporation (LISC), and Enterprise Community Partners (ECP).

The Funding Partners have committed to matching Metro’s \$9 million investment for a total investment of \$18 million. Additionally, LIIF has been the administrative agent of the MATCH Program and has managed the day-to-day administration.

To date, Metro and its Funding Partners have made available an equal share of \$12 million which has financed predevelopment activities to construct six new projects with 523 new affordable housing units and to preserve 32 naturally occurring affordable housing units (with plans for the site to be redeveloped into 100 new income-restricted affordable housing units).

DISCUSSION

Findings

- Housing and economic indicators suggest that housing affordability is one the most important issues facing Los Angeles County.
- While funding for affordable housing generally is scarce or insufficient, predevelopment funding is particularly needed to support housing projects during what is often a multi-year process of project planning, entitlements, and securing construction and permanent funding resources.
- Impacts associated with the COVID-19 pandemic are likely to result in delays in securing funding commitments and project approvals as public and private entities respond and adapt to the crisis. Such delays may result in longer holding periods, leading to higher predevelopment expenses, and greater need for predevelopment financing.
- Metro can support/accelerate the construction of affordable units by providing the flexibility identified in consult with partners, who have an intimate knowledge of the gaps and needs for funding affordable housing.
- By responding to this need now, especially when it is so critically needed, staff believes Metro can best achieve the original intent of the MATCH Program.

Program Modifications

Based on three years of operating the MATCH Program, Metro staff and our partners have learned best practices to maximize the leveraging potential of the MATCH funds. In addition, to nimbly respond to economic impacts associated with the COVID-19 pandemic, staff is requesting the following modifications to the MATCH guidelines, as further described in Attachment A:

1. *Loan Types*: Allow for increased flexibility in the types of loans given by making 50% of funds available for either predevelopment or H+T loans.

LOAN TYPE	CURRENT MAXIMUM ALLOCATION (%)	CURRENT MAXIMUM ALLOCATION (\$)	REVISED MAXIMUM ALLOCATION (%)	REVISED MAXIMUM ALLOCATION (\$)
Predevelopment Loan	25%	\$4,500,000	25%	\$4,500,000
H+T Loan	75%	\$13,500,000	25%	\$4,500,000
Flexible: H+T or Predevelopment Loans	-	-	50%	\$9,000,000
TOTAL	100%	\$18,000,000	100%	\$18,000,000

2. *Exposure limits of MATCH LLC*: Increase the maximum principal balance in predevelopment loans to a sponsor/borrower, while adding a cap to the total maximum principal balance (regardless of loan type) to a sponsor/borrower.

PER SPONSOR/BORROWER (MATCH LLC PARTICIPATION)	CURRENT	REVISED
Maximum Principal Balance of Predevelopment Loans	\$1,500,000	\$2,000,000
Maximum Principal Balance of H+T Loans	\$2,000,000	\$2,000,000
Maximum Total Principal Balance of Any Combination of Loans	-	\$3,000,000

3. *Origination period*: Adjust the origination period to allow for a two-year extension beyond the current origination period which ends in August 2020. The two-year extension shall be composed of a one-year base extension and an additional one-year extension option that could be exercised administratively.

Equity Platform

The MATCH Program has been developed with guidance and input from our Program partners and is focused on directing resources where need is greatest. As such, the Program and recommendations before the Board directly relate to the Equity Platform’s pillars to: I. Define and Measure; II. Listen and Learn; and III. Focus and Deliver.

DETERMINATION OF SAFETY IMPACT

The recommended action will not have any direct impact on safety.

FINANCIAL IMPACT

The previous Board actions approved funding in the amount of \$9,000,000 for the MATCH Program. Of that amount, \$6,000,000 has been disbursed to the MATCH Program and made available to borrowers. Since this is a multi-year program, the Chief Planning Officer, Project Manager and Cost Center Manager will be responsible and accountable for budgeting the remaining \$3,000,000 in program funds in future fiscal years to the extent available.

Impact to Budget

The source of funds for the MATCH Program is General Funds which are eligible for bus/rail operating and capital expenses. The actions authorizing changes to the MATCH Program guidelines does not require additional budgetary commitments at this time.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The staff recommendation supports implementation of Vision 2028 Strategic Plan Goal 3.2, to catalyze transit-oriented communities and stabilize neighborhoods, as well as Goal 3.4, by playing a strong leadership role in efforts to address homelessness in LA County.

ALTERNATIVES CONSIDERED

The Board could choose not to approve the recommended changes or to modify the recommendations. However, this is not advisable as the recommendations are consistent with carrying out the intent of the MATCH Program to leverage public, private and philanthropic resources to expand the production and preservation of affordable housing.

NEXT STEPS


Upon approval by the Board, staff would draft the necessary amendments to the existing agreements with our partners to implement the recommended changes to the MATCH Program.

ATTACHMENTS

Attachment A - Revised MATCH Guidelines

Prepared by: Nick Saponara, DEO, Countywide Planning & Development, (213) 922-4313
Holly Rockwell, SEO - Real Estate, Transit Oriented Communities and Transportation Demand, (213) 922-5585

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



Phillip A. Washington
Chief Executive Officer



Next stop: building communities.

**Metro Affordable Transit Connected
Housing (MATCH) Program**

Planning and Programming Committee
May 21, 2020
Legistar File #2020-0208



Recommendation

- > Approve revisions to the Metro Affordable Transit Housing Connection Housing Program (MATCH Program); and
- > Authorize the CEO or designee to execute necessary amendments to agreements related to the MATCH Program.

Background & Issue

- > In August 2016, Board approved investing \$9 million into the MATCH Program revolving loan fund to support development of affordable housing near transit
- > Metro entered into agreements with funding partners and program administrator
- > To date, funding has supported 7 projects with more than 600 units of affordable housing planned
- > Program revisions are recommended to improve deployment of funds

Proposed Changes to MATCH Program

- **Loan Types:** Allow for greater flexibility in fund distribution across categories

<u>LOAN TYPE</u>	<u>CURRENT MAX %</u>	<u>PROPOSED MAX %</u>
Predevelopment Loan	25%	25%
Housing + Transit (H+T) Loans	75%	25%
<i>Flexible:</i> Predev or H+T	-	50%

- **Exposure Limits:** Increase the maximum principal balance allowed in predevelopment loans and add a cap to the total maximum principal balance (regardless of loan type) to a sponsor/borrower

<u>MAX PRINCIPAL BALANCE</u>	<u>CURRENT</u>	<u>REVISED</u>
Predevelopment Loans	\$1,500,000	\$2,000,000
H+T Loans	\$2,000,000	\$2,000,000
Any Combination of Loans	-	\$3,000,000

- **Origination Period:** Adjust origination period which ends August 2020 to allow for a one-year extension with additional one-year option

Next Steps

Upon Board approval:

- > Prepare and execute amendments to existing agreements with MATCH Program partners.

**Metro Affordable Transit Connected Housing Program
(MATCH)**

Amended and Restated

PROGRAM GUIDELINES AND REQUIREMENTS

[____, 2020]

Table of Contents

- I. Program Purpose and Summary; Program Parties
 - II. Distribution Agreement and Program Documents; Conflicts
 - III. MATCH Program Loan Products; Program Origination Period; Tranches and Top Loss Portion
 - IV. Standard Underwriting Criteria
 - a. H+T Loans
 - b. Predevelopment Loans
 - V. CDFI Project Loans Underwriting and Closing Process
 - VI. Reporting
-

As of the date hereof, these Amended and Restated Program Guidelines and Requirements amend, restate, and replace in their entirety those certain Program Guidelines and Requirements dated August 23, 2017. These Amended and Restated Program Guidelines and Requirements have been consented to and accepted by the MATCH Program Parties pursuant to that certain MATCH Fund Consent and Agreement dated _____, 2020.

I. Program Purpose and Summary; Program Parties.

The Metro Affordable Transit Connected Housing Program (the “MATCH Program”) has been established for the purpose of providing funding to preserve, stabilize, and expand affordable housing available to low-income residents in Los Angeles County communities near existing and proposed transit nodes that are being impacted by increased property values. The MATCH Program is a public-private lending partnership with an estimated loan capitalization of \$75 million, leveraged with a \$18 million combined investment from (1) LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (“LACMTA”) and (2) CALIFORNIA COMMUNITY FOUNDATION (“CCF”), THE CALIFORNIA ENDOWMENT (“TCE”), and WEINGART FOUNDATION (the “Foundation Funders” and, collectively with LACMTA, the “Program Funders”). The goal of the MATCH Program is to deliver innovative financing intended to preserve, stabilize and expand the affordable housing stock available to low-income residents near existing and proposed transit nodes throughout Los Angeles County, which goal is to be in

furtherance of charitable purposes as described in Section 170(c)(2)(B) of the Internal Revenue Code, including relief of the poor and distressed and combatting community deterioration.

The “Originating CDFIs” are ENTERPRISE COMMUNITY LOAN FUND, INC. (“ECLF”), LOCAL INITIATIVES SUPPORT CORPORATION (“LISC”), LOW INCOME INVESTMENT FUND (“LIIF”), and any other Community Development Financial Institution that is subsequently approved by each of the Program Funders and executes an Origination and Participation Agreement in substantially the same form as executed by ECLF, LISC, and LIIF.

MATCH LLC, a California limited liability company, has been formed as the operating entity to implement, manage, and administer the MATCH Program and to serve as an intermediary to leverage funds from Program Funders with the separate funds of the Originating CDFIs, all of which is to be carried out in accordance with these Program Guidelines and Requirements (these “Program Guidelines and Requirements”) and the MATCH Program Documents (as defined below), and all of which is undertaken by MATCH LLC for charitable purposes as described in Section 170(c)(2)(B) of the Internal Revenue Code, including relief of the poor and distressed and combatting community deterioration.

The Program Funders, the Originating CDFIs, MATCH LLC, and the Program Administrative Agent are the “MATCH Program Parties.”

The Program Funders have committed to fund the MATCH Program as follows:

LACMTA	\$9,000,000 (50%*)
California Community Foundation	\$4,000,000 (22.22*)
The California Endowment	\$3,500,000 (19.44*)
Weingart Foundation	<u>\$1,500,000 (8.33%*)</u>
Total	\$18,000,000

[*percent of Program Funder’s interest in each Subordinated Participation Interest (as defined in III below).]

The aforesaid commitment of each Program Funder is subject to reduction pursuant to the terms and provisions of Section 1.9 of each Program Funder Agreement.

LIIF has been retained by MATCH LLC to serve as the “Program Administrative Agent” pursuant to the Program Administrative Agent Agreement (as defined in II below).

The term “Program Effective Date” shall mean the Effective Date set forth in the Distribution Agreement (as defined in II below).

II. Distribution Agreement and Program Documents; Conflicts.

All Program Parties will execute the MATCH Program Distribution Agreement (the “Distribution Agreement”) which will govern the distribution of funds, allocations of CDFI Project Loan losses, and related matters. MATCH LLC will enter into a separate “Program Funder Agreement” with LACMTA and each Foundation Funder and a separate “Origination and Participation Agreement” with each Originating CDFI. These Program Guidelines and Requirements, the Distribution

Agreement, the Funder Agreements, the Origination and Participation Agreements, and the Program Administrative Agent Agreement, together with all accompanying exhibits and schedules, comprise the “MATCH Program Documents.”

Certain terms and provisions of these Program Guidelines and Requirements overlap or duplicate similar terms and provisions in the other MATCH Program Documents. Such terms and provisions of these Program Guidelines and Requirements and of the other MATCH Program Documents are intended to be construed together so as to give full effect to the separate provisions of these Program Guidelines and Requirements and those of other MATCH Program Documents. For example, where the Program Funder Agreements, the Distribution Agreement, and/or the Origination and Participation Agreements provide for requirements or conditions as to certain matters that are in addition to, but not in conflict with, the related provisions in these Program Guidelines and Requirements, then such additional requirements or conditions and the related provisions in these Program Guidelines and Requirements shall both apply. In the event of any direct inconsistencies or ambiguities as between the terms and provisions of these Program Guidelines and Requirements and those of any of the other MATCH Program Documents, the term and provisions that are more detailed or that otherwise provide more specificity shall apply. However, the terms and provisions of the Distribution Agreement shall prevail over the terms and provisions of these Program Guidelines and Requirements and of any other MATCH Program Documents as to all matters relating to payments, distributions, application, allocation, and handling of payments, revenues and other proceeds in connection with the CDFI Project Loans.

III. MATCH Program Loan Products and Product Allocation Limits; Program Origination Period; Tranches-Top Loss Portion.

The MATCH Program provides two (2) loan products: the Housing + Transportation Loan Product (“H+T Loans”) and the Predevelopment Loan Product (“Predevelopment Loans”). The funds committed by the Program Funders to the MATCH Fund shall be allocated between H+T Loans and Predevelopment Loans in accordance with the following (the “Product Allocation Limits”):

<i>MATCH Loan Product</i>	<i>%</i>	<i>\$</i>
<u>Predevelopment Loans</u>	25%	\$4,500,000
<u>Flexible-H+T Loans or Predevelopment Loans</u>	50%	\$9,000,000
<u>H+T Loans</u>	25%	\$4,500,000
Total	100%	\$18,000,000

The aforesaid Product Allocation Limits shall apply notwithstanding any contrary provision of these Project Guidelines and Requirements.

The direct project H+T Loans and Predevelopment Loans (“CDFI Project Loans”) to MATCH Program eligible borrowers (“CDFI Project Loan Borrowers”) are originated by the Originating CDFIs, with a “Subordinate Participation Interest” therein acquired by MATCH LLC utilizing funds from Program Funders.

CDFI Project Loans shall only be originated during the period commencing on the Program Effective Date and ending on August 23, 2021 (the “Program Origination Period”). The Program Origination Period may be extended by MATCH LLC for another twelve (12) months upon the unanimous approval by the Program Funders.

For the purposes of allocating CDFI Project Loan Losses (as defined in the Distribution Agreement) among the Program Funders and the Originating CDFIs, each CDFI Project Loan is comprised of the following Tranches, in order of subordination:

- Tranche A (first subordinate position), LACMTA;
- Tranche B (second subordinate position senior to Tranche A), LACMTA and the Foundation Funders pari passu; and,
- Tranche C (senior position), Originating CDFI.

That portion of CDFI Project Loan Losses to be allocated to the Program Funders as per Tranche A and Tranche B is referred to as the “Top Loss Portion.” The allocation to the Program Funders of the Top Loss Portion of any CDFI Project Loan Loss shall be implemented through the distribution of Non-Scheduled CDFI Project Loan Proceeds (as defined in the Distribution Agreement) in accordance with the order and priorities set forth in Section 2 of the Distribution Agreement.

IV. Standard Underwriting Criteria.

The underwriting criteria set forth in the following Tables shall be required as to all H+T Loans and Predevelopment Loans, as applicable (the “Standard Underwriting Criteria”). The following definitions shall apply with respect to the Standard Underwriting Criteria:

Guarantor means the entity, which may be a Sponsor, that provides a repayment or other guaranty in connection with a CDFI Project Loan.

Program Project means an affordable housing project that a CDFI Project Loan Borrower intends to own, operate and develop on the Property and that meets all of the applicable Standard Underwriting Criteria.

Property means (1), with respect to a H+T Loan, an existing, occupied multifamily housing property (or several properties that qualify together as a “scattered site” per the regulations applicable to the sources of funding) that the CDFI Project Loan Borrower is contemplating to own, operate and develop as the Program Project, and (2), with respect to a Predevelopment Loan, a property (or several properties that qualify together as a “scattered site” per the regulations applicable to the sources of funding) that the CDFI Project Loan Borrower is contemplating to acquire and develop as the Program Project.

Sponsor means the primary operating entity engaged in the development, ownership, and/or operation of affordable housing that, in the case of a nonprofit, is controlled by its board of directors, and, in the case of a for-profit, is owned and controlled by the principal individuals.

a. H+T Loans.

The goal of the H+T Loans is to help affordable housing developers purchase multifamily properties in advance of gentrification and displacement forces that might occur in order to preserve and expand the number of affordable units, with likely capacity on eligible sites to at least double the number of units or square footage. The purpose of this goal is to benefit low-income residents by preserving the existing units in the short term, and in the long term to redevelop the sites with permanent affordable housing at higher density. H+T loans provides patient funding for affordable housing developers to purchase qualified multifamily properties and hold them for 5 – 10 years with short term affordability restrictions while community and site-specific plans are completed to significantly increase the number of affordable units.

**H+T LOAN CRITERIA AND REQUIREMENTS
TABLE**

<p>1. <u>H+T Loan:</u> Eligible Program Project and Program Property</p>	<p>Program Projects must meet the following criteria related to the Property under consideration:</p> <ul style="list-style-type: none"> • Each Property must meet the Site Requirements set forth below; • Each Property must satisfy minimum standards for safe, decent, and sanitary housing and might require some level of post-closing repair and rehabilitation as part of acquisition, at a minimum addressing health and safety concerns raised in the Property Condition Report (as described in <u>Section 26</u> below); • The Property (including all the sites that constitute the Program Project, as applicable) must have an existing minimum unit size of 20 units, with likely capacity to at least double the number of units or square footage when redeveloped. Priority will be given to projects that will significantly increase affordable housing opportunities on site.
<p>2. <u>H+T Loan:</u> Eligible Borrower</p>	<p>Eligible CDFI Project Loan Borrowers are non-profit developers or for-profit developers in joint-venture with non-profit developers:</p> <ul style="list-style-type: none"> • with a minimum of 5 years of experience in affordable housing development, a successful track record of obtaining entitlements and financing (public and private), completing and operating at least 4 affordable housing projects similar or larger in scope, size and budget than the Program Project submitted for consideration; • adequate organizational capacity and stability, without material defaults or material adverse financial change; and, • familiarity with the displacement issues affecting low-income residents in the targeted communities.

	<p>With respect to joint ventures, at least one of the team members must separately satisfy the foregoing experience threshold and other requirements.</p> <p>If the CDFI Project Loan Borrower is a Single Purpose Entity (SPE), the requirements in the 3 bullet items above can be met by the Guarantor or Sponsor, as deemed acceptable to the Originating CDFI.</p> <p>In regards to joint ventures with non-profit developers, the MATCH Program encourages strong joint venture partnerships with neighborhood-based community development corporations (CDC) or community based organizations (CBO) as a strategy to optimize developers' different strengths and expertise and to use the CDCs' and CBOs' familiarity with communities, particularly in addressing displacement issues. A joint venture agreement shall specify an active role for the CDC or CBO partner in regards to the following activities: development and design of the Program Project for the population served, property management or resident services.</p>
<p>3. <u>H+T Loan:</u> Eligible Costs and Uses</p>	<p>CDFI Project Loan Borrower's use of H+T Loan funds shall be for costs associated with the acquisition of a Property that meets the eligibility requirements in these Program Guidelines and Requirements. The eligible costs include purchase price, closing costs (including due diligence items), financing fees, carrying costs such as immediate repairs required by the Originating CDFI, real estate tax reserves for year one (Property Tax Exemption Reserve, as may be required by Originating CDFI), capitalized operating, replacement, and interest reserves required by the Originating CDFI, and other carrying costs as deemed acceptable by the Originating CDFI.</p>
<p>4. <u>H+T Loan:</u> Site Requirements</p>	<ul style="list-style-type: none"> • The Property must be located within a half mile of an High Quality Transit Nodes ("HQTN"). An HQTN is defined by LACMTA, for the purposes of the MATCH Program, as a fixed guideway station or intersection of 2 buses (of any bus operator) with 15 minutes maximum frequency peak period headways. • Preference will be given to projects that evidence a safe path of travel to transit from the Program Project (i.e. residents of the Program Project must be able to safely walk or bike to a nearby transit stop or station on existing or planned sidewalks or bicycle lanes and crosswalks at major intersections). LACMTA will verify this condition through one of the following: <ul style="list-style-type: none"> ○ CDFI Project Loan Borrower shall provide photos and a map documenting the current conditions and path of travel for pedestrians and bicyclists from the subject Property to the nearest public transit stop. If the current path of travel condition is deemed safe by LACMTA's First/Last Mile department, this requirement is met;

	<ul style="list-style-type: none"> ○ If an adequate safe path of travel does not exist, CDFI Project Loan Borrower shall provide a written commitment that any planned future project at the Site must include a safe path of travel for pedestrians and bicyclists from the Property to the nearest transit stop.
<p>5. <u>H+T Loan:</u> Program Charitable Purpose Requirement:</p> <p>Safe Harbor and other Tests</p>	<p>MATCH Program funds shall be used only to fund Program Projects that meet or will meet one of the following tests for the period that commences upon the closing of the corresponding CDFI Project Loan and that ends upon the repayment of such CDFI Project Loan (the “<u>Program Charitable Purpose Requirement</u>”):</p> <ul style="list-style-type: none"> • <u>Safe Harbor Test</u>. The Program Project will provide relief to the poor and distressed because the Program Project will be one in which (a) at least 75% of the units are designated for occupancy by residents that qualify as Low-Income (defined as household income equal to or less than 80% of Average Median Income (“AMI”), and (b) either (y) at least 20% of the units must be designated for occupancy by residents that qualify as Very Low-Income (defined as household income equal to or less than 50% of AMI); or (z) at least 40% of the units must be designated for occupancy by residents with household income that does not exceed 60% of AMI (the “<u>Safe Harbor Test</u>”). Unit(s) set aside for the property manager(s) is (are) omitted from the calculations to determine compliance with the Safe Harbor test. <p>The Safe Harbor Test requirements are intended to incorporate the requirements and other provisions set forth in Internal Revenue Services’ Revenue Procedure 96- 32 (“<u>Rev. Proc. 96-32</u>”), as the same may be amended from time to time.</p> <ul style="list-style-type: none"> • <u>Facts and Circumstances Test</u>. The Program Project will provide relief to the poor and distressed by satisfying the “facts and circumstances” test described in Section 4 of the Rev. Proc. 96-32, as it may be amended from time to time. • <u>Combatting Community Deterioration Test</u>. The Program Project will combat community deterioration in one of the blighted areas of the County of Los Angeles, (e.g., neighborhoods and areas designated as Empowerment Zones, HUD Revitalization Areas, Community Development Block Grant eligible neighborhoods, Urban Renewal Areas, Redevelopment Project Areas and other City, State or Federal designations indicating a blighted neighborhood). <p>No more than 15% of the aggregate principal amount of any CDFI Project Loan may be used to fund non-residential (community, commercial or retail) space, so long as such elements directly serve or support the affordable housing component of the applicable Program Project and support the charitable goals of MATCH LLC.</p>

	<p>MATCH LLC regards such non-residential space as a furtherance of its charitable purposes in that such space will enhance the benefit of the related affordable housing to its low-income residents by creating convenience and accessibility to services and support elements that might otherwise be more difficult to access if not located near their residential units.</p>
<p>6. <u>H+T Loan:</u> Program Charitable Purpose Requirement:</p> <p>H+T Loan Closing Requirements and Compliance</p>	<ul style="list-style-type: none"> • The following requirements must be met upon the closing of an H+T Loan: <ul style="list-style-type: none"> a. A MATCH PROGRAM REGULATORY AGREEMENT has been executed by the CDFI Project Loan Borrower and recorded against the Property (a "<u>H+T Loan Regulatory Agreement</u>"); b. A CDFI PROJECT LOAN AGREEMENT RIDER has been executed by the applicable Originating CDFI and the CDFI Project Loan Borrower and delivered to the Program Administrative Agent ("<u>H+T Loan Rider</u>"); c. An ORIGINATING CDFI CHARITABLE PURPOSE CLOSING CERTIFICATE has been executed by the applicable Originating CDFI and delivered to the Program Administrative Agent (the "<u>Originating CDFI Charitable Purpose Closing Certificate</u>"), and in which Certificate the Originating CDFI (i) confirms that the Program Project furthers the Originating CDFI's Charitable Purpose and (ii), as determined by the Originating CDFI's during its underwriting and review process, identifies the Program Charitable Purpose Requirement test (i.e. either the Safe Harbor Test, the Facts and Circumstances Test, or the Combatting Community Deterioration Test) that the Program Project meets or will meet; <p>The H+T Loan Regulatory Agreement, the H+T Loan Rider, and the CDFI Charitable Purpose Closing Certificate shall be in the form attached to the Origination and Participation Agreements.</p> d. For Program Projects intended to meet the Safe Harbor Test, the CDFI Project Borrower shall submit an OCCUPANCY AND MANAGEMENT PLAN that demonstrates how it intends to meet the applicable income and rent restrictions, includes a preliminary profile of the Program Project's current rents and renters' incomes, and addresses how the CDFI Project Loan Borrower will adjust the rents to make them affordable to the existing tenants, as needed; • Program Projects intended to meet the Safe Harbor Test will have a reasonable transition period to comply as allowed in Rev. Proc. 96-32, which shall include, for any Program Project that does not require substantial construction or rehabilitation, a reasonable period of not less than one year to meet the Safe Harbor actual occupancy requirement. Following the closing, the CDFI Project Loan Borrower

	<p>will only re-rent vacant units to tenants that meet the income eligibility restrictions.</p> <ul style="list-style-type: none"> • The Program Projects for H+T Loans are initially intended (subject to the aforesaid reasonable transition period) to comply with the Safe Harbor Test. However, if a Program Project does not appear to be able to meet the Safe Harbor Test parameters, it can satisfy one of the other Program Charitable Purpose Requirement tests note above. • Within 6 months of closing, the CDFI Project Loan Borrowers shall submit an updated OCCUPANCY AND MANAGEMENT PLAN, reflecting the actual current rents and renters' incomes with respect to all existing tenancies and demonstrating how they compare to the restrictions set forth in the H+T Loan Regulatory Agreement and any other restrictions applicable to the subject Property. • Any relocation of tenants will be conducted in accordance with applicable laws and regulations. The relocation consultant selected by the CDFI Project Loan Borrowers should be acceptable to the applicable Originating CDFI. During the term of the CDFI Project Loan, at least 3 months prior to relocation requirements being triggered, the CDFI Project Borrowers will be required to submit to the applicable Originating CDFI a relocation plan and budget that satisfy any applicable laws and regulations; • Monitoring: CDFI Project Loan Borrowers will be required to submit an annual self-certification of compliance with the Program Charitable Purpose Requirement and the corresponding income and rent restriction requirements.
<p>7. H+T Loan: Property (welfare) Tax Exemption; Public Agency Restrictions</p>	<p>If the CDFI Project Loan Borrower's cash flow projections for a Property assume a welfare tax exemption, the CDFI Project Loan Borrower will be required to:</p> <ul style="list-style-type: none"> • Demonstrate prior to closing how they intend for the Property to qualify for the exemption through a detailed plan acceptable to Originating CDFI, addressing all qualification requirements; in particular they will need to demonstrate their plans to secure an enforceable and verifiable agreement with a public agency, a recorded deed restriction, or other legal document that restricts the Program Project's usage and that provides that the units designated for use by lower income households are continuously available to or occupied by lower income households at rents that do not exceed those prescribed by applicable laws and regulations. This might include demonstrating local government support to record deed restrictions on title through a regulatory agreement; • Make sure all restrictions recorded by public agencies are short term (up to 2 years and renewable, or co-terminus with the CDFI Project Loan but subject to release at the Originating CDFI's request); exceptions to the term of the restrictions will be considered by

	<p>Originating CDFI on a deal by deal basis, at its discretion and with approval of the Funders, with the understanding that restrictions that would survive the term of the CDFI Project Loan will need to be reflected in the appraised value and underwriting assumptions;</p> <ul style="list-style-type: none"> Secure the exemption within 12 months following the CDFI Project Loan closing. <p>If a Program Project can demonstrate sufficient cash flow to service the debt without securing a welfare exemption, the requirement above mentioned may be waived through the Originating CDFI's standard underwriting process.</p> <p>CDFI Project Loan Borrowers will be advised to discuss carefully with local jurisdictions the utilization of appropriate funding as subordinate financing to support the recording of restrictions on title. If CDFI Project Loan Borrower and local government intend to utilize any federal sources such as HOME Investment Partnerships Program (HOME), Community Development Block Grant (CDBG), Neighborhood Stabilization Program (NSP), during the term of the CDFI Project Loan, CDFI Project Loan Borrower must include an assessment of relocation requirements arising from use of federal sources.</p>
<p>8. <u>H+T Loan:</u> Payoff, Release of H+T Loan Regulatory Agreement, and Equity Recapture</p>	<p>Upon the payoff of a H+T Loan (however occurring), the H+T Loan Regulatory Agreement will be <u>removed from title</u>.</p> <p>The following "<u>Equity Recapture</u>" provisions shall apply if, upon the final payoff of an H+T Loan wherein the applicable CDFI Project Loan Borrower is utilizing the proceeds of a sale or a refinance of the underlying Property, the H+T Loan Regulatory Agreement recorded against the applicable Property is <u>not</u> being replaced with other recorded affordability restrictions against the Property that (A) have a term of at least thirty (30) years, (B) restrict rent and income as to 100% of the residential units (which shall include all existing units and future units that are currently entitled as of the payoff but shall exclude any manager unit(s)) to occupancy by tenants having income of 60% of AMI or lower, and (C) are imposed by a local government agency or other entity (but not MATCH LLC or the Program Administrative Agent) with the capacity to monitor such for enforcement ("<u>100% Long Term Restrictions</u>"):</p> <ol style="list-style-type: none"> a. The proceeds of the CDFI Project Loan Borrower's sale or refinancing <u>plus</u> the balance of any remaining capitalized operating reserves, capitalized replacement reserves, Sinking Fund proceeds, and/or Debt Coverage Reserve funds, if any, shall be applied in the following order and priority: <ol style="list-style-type: none"> 1. <u>First</u>, to the repayment of the CDFI Project Loan principal, CDFI Project Loan interest, and accrued fees (including any Accrued MATCH LLC Payments, as defined below, ₁ owing to MATCH LLC);

2. Second, to the CDFI Project Loan Borrower, an amount equal to (A) all acquisition and predevelopment costs directly expensed by the CDFI Project Loan Borrower through equity (or debt unrelated to the CDFI Project Loan) less (B) any Excess Net Cash Flow (as defined in Section 21 below under “Initial Term; Sinking Fund; Net Cash Flow”) retained by, or distributed to, the CDFI Project Loan Borrower (the positive sum of A. less B. is referred to as “Net CDFI Project Loan Borrower Equity”);
3. Third, to the CDFI Project Loan Borrower, a preferred equity payment not to exceed a five percent (5%) internal rate of return on the Net CDFI Project Loan Borrower Equity;
4. Fourth, any remaining sale or refinancing proceeds after payment of the amounts in 1. thru 3. above is referred to as “Net Equity” and shall be applied as follows:
 - A. Except as provided in B. below, if 100% Long Term Restrictions are not being recorded against the Program Project upon a H+T Loan payoff (and regardless of the recordation of any other restrictions), then 100% of the Net Equity will be “recaptured” and disbursed to MATCH LLC for distribution to LACMTA and the Foundations;
 - B. Notwithstanding A. above, if restrictions are being recorded against the Program Project upon a H+T Loan payoff that do not restrict 100% of the residential units (excluding manager units) but that otherwise comply with all of the other requirements of 100% Long Term Restrictions set forth in the first paragraph of this Section 8, then the Net Equity shall be allocated on the following sliding scale based on the “proportion” of units that will be subject to such to occupancy by tenants having income of 60% of AMI or lower restrictions:
 - If between 35-100% (but less than 100%) of the units are restricted to 60% AMI or lower, the equivalent percentage of Net Equity will be allocated to the CDFI Project Loan Borrower (e.g., 80% affordable units results in 80% of the balance of Net Equity to the CDFI Project Loan Borrower) and the remaining percentage of the Net Equity will be “recaptured” and disbursed to MATCH LLC for distribution to LACMTA and the Foundations (e.g., 20% of unrestricted units results the “recapture” of 20% of the Net Equity);
 - If less than 35% of the units are restricted to 60% AMI or lower, 100% of the Net Equity will be “recaptured” and disbursed to MATCH LLC for distribution to LACMTA and the Foundations;

	<p>Any Net Equity that is required pursuant to the preceding provisions to be “recaptured” and distributed to LACMTA and the Foundations is referred to as “<u>Recaptured Equity</u>.”</p> <p>b. No later than 45 days prior to the date targeted for the payoff of a H+T Loan, the CDFI Project Loan Borrower shall be required to submit a certification to the Originating CDFI setting forth such borrower’s calculations of costs to date and a equity distribution request to the Originating CDFI. The final determination of equity shall be made by the Program Administrative Agent.</p>
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<p>9. <u>H+T Loan:</u> Maximum H+T Loan Amount and Funding Tranches</p>	<p>Maximum H+T Loan Amount will be determined on per loan basis and shall consist of the sum of the following:</p> <ul style="list-style-type: none"> • The “<u>Applicable CDFI Portion</u>”, which shall be equal to a percentage from <u>75% to 85%</u> of the Appraised Property Value, which percentage shall be designated by the Originating CDFI in its discretion; and, • The “<u>Applicable MATCH LLC Portion</u>”, which shall be equal to the <u>lower</u> of (a) the difference between <u>120%</u> of Appraised Property Value and the <u>Applicable CDFI Portion</u> (i.e. <u>75% to 85%</u> of Appraised Property Value) or (b) <u>\$2,000,000.</u> <p>“<u>Appraised Property Value</u>” shall mean the “As Is Market Value” of the Property securing a H+T Loan, as set forth in the appraisal described in <u>Section 28</u> below and included with the Borrower Submission Package for the subject H+T Loan.</p> <p>Each H+T Loan will include the following Tranches of funding:</p> <ul style="list-style-type: none"> • <u>Tranche C</u> is in the senior position and consists 100% of the Applicable CDFI’s Portion of the H+T Loan; • <u>Tranche B</u> is in the second subordinate position senior to Tranche A and consists of 72.22% of the <u>Applicable MATCH LLC Portion</u> of the H+T Loan. Tranche B is funded with the LACMTA and the Foundation Funders funds pari passu in the following percentages: 30.77% from LACMTA and 69.23% from the Foundation Funders’ funds (which Foundation Funders’ funds are comprised of a pro-rata proportion of each Foundation Funder’s committed Program Loan amount); • <u>Tranche A</u> is in the first subordinate position, in junior position to Tranche B and consists of 27.78% of the <u>Applicable MATCH LLC Portion</u> of the H+T Loan. Tranche A is funded by LACMTA. <p>The Originating CDFIs will be able to seek participations (“<u>Senior Participation</u>”) from another party (including, without limitation, another Originating CDFIs participating in the MATCH Program), subject to the Originating CDFI acting as the “Lead Lender” or “Agent” as to the Senior Participation.</p>
<p>10. <u>H+T Loan:</u> Term; Additional H+T Term</p>	<p>H+T Loans shall have an “<u>Initial Term</u>” of not more than 5 years. If the Initial Term is 5 years, then a H+T Loan may have an additional term of not more than 5 years (an <u>Additional H+T Term</u>”) at option of the CDFI Project Loan Borrower upon Originating CDFI approval and contingent upon the following conditions:</p>

	<ul style="list-style-type: none"> • Originating CDFI’s review and approval of an updated repayment plan, which provides for repayment of the loan prior to the expiration of the Additional H+T Term; • Evidence of the CDFI Project Loan Borrower’s continued intent to meet the Program Charitable Purpose Requirement; no default of the Program Charitable Purpose Requirement has occurred; • Evidence of entitlements secured for the Program Project as planned; • CDFI Project Loan Borrower meeting the other underwriting and other provisions of these Program Guidelines and Requirements that are applicable to the Additional H+T Term, including the reserves and DCR requirements; • Approval of the extension by the Originating CDFI and all of the Program Funders; • Updated financial statements for the CDFI Project Loan Borrower and Guarantor(s) which (i) satisfy the required financial covenants, (ii) show that there has been no material adverse change with respect to CDFI Project Loan Borrower, Sponsor and Guarantor’s financial condition, the Program Project, or the Program Project Financing, and (iii) all financial reporting and payments under the loan are current; • No material adverse change has occurred with respect to the Program Project or Property; • Payment of Originating CDFI’s legal costs, and any other costs (third party or otherwise) associated with the extension of the CDFI Project Loan term; and, • No Event of Default has occurred and is continuing and the CDFI Project Loan Borrower is current on all payments required under the H+T Loan.
<p>11. <u>H+T Loan:</u> Outside Maturity Date</p>	<p>Notwithstanding the foregoing, no maturity date of any H+T Loan shall occur, or be extended, beyond the 12th anniversary date of Project Effective Date.</p>
<p>12. <u>H+T Loan:</u> Repayment; Initial Term; Interest and Reserves; Additional H+T Term: Amortization</p>	<ul style="list-style-type: none"> • <u>5-year Initial Term: Interest only; Interest Reserve.</u> Interest shall be paid by the CDFI Project Loan Borrower first from property cash flow, and second from an interest reserve established as part of the loan budget and advanced from loan proceeds as interest costs are incurred. An interest reserve shall be established if the projected Property cash flow during the Initial Term cash does not support interest payment with a minimum Debt Service Coverage Ratio (DSCR) of 1.20:1.0. Sizing of the interest reserve shall reflect any

<p>Payments</p>	<p>shortfall in meeting the DSCR for the Initial Term (or a portion of it as the discretion of the Originating CDFI). The Interest Reserve will be established at the closing pursuant to a withholding of the applicable interest reserve amounts by the Originating CDFI and MATCH LLC from their respective portions of the H+T Loan proceeds. The withheld amounts will be applied by the Originating CDFI and MATCH LLC towards monthly interest payments as they become due and payable. For the avoidance of doubt, CDFI Project Loan interest shall only accrue on portions of the withheld interest reserve that are applied to interest pursuant to the preceding sentence.</p> <ul style="list-style-type: none"> • <u>Additional H+T Term; Amortization Payments:</u> <p>During any Additional H+T Term, amortizing principal and interest over a 25-year period with even monthly payments (“<u>Amortization Payments</u>”) shall be payable. The Amortization Payments shall be set forth in an “<u>Amortization Schedule</u>” to be prepared by the applicable Originating CDFI at the commencement of the Additional H+T Term.</p> <p>Amortization Payments will be paid on a bifurcated basis as follows:</p> <ul style="list-style-type: none"> ○ The amount of each Amortization Payment that is allocable to the Applicable CDFI Portion of the subject H+T Loan (the “<u>CDFI Amortization Portion</u>”) will be paid monthly by the CDFI Project Loan Borrower to the Originating CDFI; ○ The amount of each Amortization Payment that is allocable to the Applicable MATCH LLC Portion of the subject H+T Loan (the “<u>MATCH LLC Amortization Portion</u>”) shall be paid annually from “<u>Residual Receipts</u>,” which shall mean, with respect to the applicable CDFI Project Loan, the amount by which the gross revenues received in each annual period starting with the commencement of the Additional H+T Term (an “<u>annual period</u>”) by the applicable CDFI Project Loan Borrower in connection with the subject Property <u>exceed</u> the sum of (i) the subject Property’s annual operating expenses for such annual period and (ii) the total of all monthly CDFI Amortization Portions paid to the Originating CDFI during such annual period. Residual Receipt payments received by MATCH LLC will be applied first to accrued and unpaid interest under the applicable Subordinated Participation Interest, then to principal balance thereunder. <ul style="list-style-type: none"> • <u>Additional H+T Term; Accrued MATCH LLC Payments.</u> <p>Any MATCH LLC Amortization Portion of the Amortization Payments that are not paid to MATCH LLC because of the insufficiency of Residual Receipts in any year or years are referred to as the “<u>Accrued MATCH LLC Payments</u>.” Accrued MATCH LLC Payments shall be paid as follows:</p>
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	<ul style="list-style-type: none"> ○ If in any annual period(s) there are any excess Residual Receipts after the full payment of the MATCH LLC Amortization Portion of Amortization Payments that are applicable to such current annual year, then such excess shall be paid to MATCH LLC and applied, to the extent thereof, to any then outstanding Accrued MATCH LLC Payments. ○ Upon the maturity or any earlier payoff of an H+T Loan, there shall become due and payable to MATCH LLC the full amount of any outstanding Accrued MATCH LLC Payments.
<p>13. <u>H+T Loan:</u> Prepayment</p>	<p>There will be no prepayment penalty charged on any prepayment of a H+T Loan.</p>
<p>14. <u>H+T Loan:</u> Collateral</p>	<p>Each H+T Loan shall be secured by first lien Deed of Trust against the Property and by a first lien against Program Project related rights, interests, and assets including entitlement submission, architectural and engineering, studies, and contracts.</p>
<p>15. <u>H+T Loan:</u> Recourse/ Guaranty</p>	<p>H+T Loans are 100% recourse to the CDFI Project Loan Borrower.</p> <p>Repayment Guaranty: If CDFI Project Loan Borrower is a SPE, a repayment guaranty is required, as deemed appropriate by the Originating CDFI, from either (i) the Sponsor/parent company of SPE CDFI Project Loan Borrower and/or (ii), for a for-profit sponsor only, the principals of the SPE CDFI Project Loan Borrower or the principals of the members or partners of the SPE CDFI Project Loan Borrower. The Repayment Guaranty will guarantee payment of an amount equal to (a) the portion of the principal amount of the H+T Loan that exceeds 75% of Appraised Property Value of the subject Property <u>plus</u> (b) accrued and unpaid interest and all Originating CDFI costs and expenses including enforcement and collection costs.</p> <p>For-profit/Non-profit Joint Venture: a repayment guaranty as described above is required from the entity or entities as are determined by the Originating CDFI.</p>
<p>16. <u>H+T Loan:</u> Sponsor Equity</p>	<p>The greater of \$100,000 or 3-5% of acquisition costs (defined as purchase price and closing costs), funded in cash prior to, or at closing. Exceptions can be made for non-profit CDFI Project Loan Borrowers subject to approval by Originating CDFI. The percentage is at the discretion of Originating CDFI.</p>
<p>17. <u>H+T Loan:</u> Sponsor Concentration;</p>	<p>The maximum exposure of MATCH LLC, through its Subordinated Participation Interests, to a specific "sponsor" is \$3,000,000 for both H+T Loans and Predevelopment Loans, provided that the maximum principal balance for any H+T loans shall be \$2,000,000 (potentially through several</p>

<p>Project Concentration</p>	<p>H+T Loans), and the maximum principal balance for any Predevelopment Loans shall be \$2,000,000 (potentially through several Predevelopment Loans); provided, however, the aforesaid maximums for H+T Loans and Predevelopment Loans shall not be construed as increasing the overall \$3,000,000 maximum exposure to any specific sponsor. The maximum \$3,000,000 exposure to any specific sponsor may be increased upon the approval of all Program Funders' and the applicable Originating CDFI.</p> <p>Project Concentration: A specific Program Project can only get support from one of the two products offered through the MATCH Program.</p>
<p>18. H+T Loan: Origination Fee</p>	<p>The CDFI Project Loan Borrower shall pay a CDFI Project Loan origination fee (applied to the total CDFI Project Loan amount) as determined by the Originating CDFI, due upon CDFI Project Loan closing. The Originating CDFI may charge a good faith deposit, which shall be credited against the Origination Fee.</p> <p>MATCH LLC is not entitled to receive any portion of any origination fee charged by a Originating CDFI.</p>
<p>19. H+T Loan: Interest rate</p>	<p>H+T Loan interest rates will be a blended rate comprised of the following:</p> <ol style="list-style-type: none"> a. An interest rate on the Applicable CDFI Portion of the H+T Loan at a rate determined by the Originating CDFI in accordance with its then normal rates for similar acquisition loans; b. An interest rate on the Applicable MATCH LLC Portion of the H+T Loan at an "all-in" rate of <u>3.25%</u>, which rate consists of <ol style="list-style-type: none"> 1. 1% interest rate on LACMTA's funds and 2% interest rate on the funds from the Foundation Funders, which rates will be blended for an interest rate of <u>1.5%</u> payable on the Applicable MATCH LLC Portion; and 2. The following fees: <ul style="list-style-type: none"> • Program Administrative Agent Fee <u>1.0% (100 bps)</u> • MATCH LLC Fee: <u>0.4% (40 bps)</u> • Servicing Fee to Originating CDFI: <u>0.35% (35 bps)</u> <p>The Originating CDFI will have the option, at its discretion, to re-set the interest rate for the Applicable CDFI Portion for the Additional H+T Term, with approval from the Program Funders <u>unless</u> such reset is to conform to the Originating CDFI's then standard interest rate for similar loans as determined from time to time based upon such Originating CDFI's costs of funds.</p>
<p>20. H+T Loan:</p>	<p><u>Capitalized Operating Reserve</u>: A "<u>Capitalized Operating Reserve</u>" of six (6) months of stabilized expenses, shall be funded from the H+T Loan at</p>

<p>Operating and Replacement Reserves Requirements</p>	<p>closing and held by the applicable Originating CDFI (calculation assumes property tax exemption has been secured). No ongoing deposit requirement from cash flow.</p> <p><u>Capitalized Replacement Reserve</u>: A “<u>Capitalized Replacement Reserve</u>” shall be funded from the H+T Loan at closing and held by the applicable Originating CDFI, and sized to address repair needs that could affect the value of the collateral as identified by the Property Condition Report for the term of the CDFI Project Loan.</p>
<p>21. H+T Loan: Initial Term: Sinking Fund; Net Cash Flow</p>	<ul style="list-style-type: none"> • During the Initial Term, Net Cash Flow (as defined below) from the Property, subject to a cap at an amount to be determined during underwriting by the Originating CDFI as appropriate for a specific Program Project, will be deposited by the CDFI Project Loan Borrower into a “<u>Sinking Fund</u>” held by the Originating CDFI; “<u>Net Cash Flow</u>” shall mean, with respect to a H+T Loan, the amount by which the annual gross revenues received by the applicable CDFI Project Loan Borrower in connection with the applicable Property exceed the sum of annual operating expenses for such Property (excluding any CDFI Project Loan or Sponsor administrative fees, developer fees, or asset management fees, but including property management fees that are consistent with management fees allowed for LIHTC properties) and all interest payments due under the applicable CDFI Project Loan. “<u>Excess Net Cash Flow</u>” shall mean any Net Cash Flow remaining after the required amount thereof has been deposited into the Sinking Fund. Excess Net Cash Flow will be retained by, or distributed to, CDFI Project Loan Borrower. • Sinking Fund’s eligible uses, as determined by the Originating CDFI, include: payment of any interest due at the end of the Initial Term (to Originating CDFI or MATCH LLC); repayment of the CDFI Project Loan at maturity or upon any earlier acceleration; funding the Debt Service Reserve for the Additional H+T Term, as approved by Originating CDFI at the end of Initial Term. At such time as the CDFI Project Loan is paid off (principal and interest), any remaining Sinking Fund proceeds shall be distributed to the CDFI Project Loan Borrower; provided, however, if the Equity Recapture provisions set forth in <u>Section 8</u> above apply upon such pay off, any remaining Sinking Fund funds shall be applied in accordance with such Equity Recapture provisions.
<p>22. H+T Loan: Additional H+T Term; Debt Service Reserve</p>	<p>If projected Property cash flow for the Additional H+T Term will not support a 1.15:1.0 DSCR on the Applicable CDFI Portion of the H+T Loan, then a “<u>Debt Service Reserve</u>” for the payment of the CDFI Amortization Portion of the Amortization Payments shall be funded by the CDFI Project Loan Borrower on or before the commencement of the Additional H+T Term. The Debt Service Reserve will be sized to meet, along with projected Property cash flow, a 1.15:1.0 DSCR on the Applicable CDFI Portion of the H+T Loan during the Additional H+T Term. Any remaining Sinking Fund proceeds from the Initial Term shall be applied to the Debt Service</p>

	Reserve upon the commencement of the Additional H+T Term. The extent of any such Sinking Fund proceeds so applied will reduce the CDFI Project Loan Borrower's Debt Service Reserve capitalization requirement.
23. <u>H+T Loan:</u> Future Development Plans	The CDFI Project Loan Borrower shall provide to the Originating CDFI a Program Project description, development budget, sources and uses proforma (construction and permanent phases), proforma projections of income and expenses during the CDFI Project Loan term demonstrating the Program Project can service the debt and pay off the CDFI Project Loan within the term, letters of interest from funding sources for all phases that can be reasonably obtained during the underwriting period – including market-rate and subsidized debt and equity providers – must be reviewed and evaluated by the Originating CDFI.
24. <u>H+T Loan:</u> Program Project Milestones	<p>A Budget for predevelopment costs for the H+T Loan must be submitted to, and approved by Originating CDFI prior to final approval of an H+T Loan.</p> <p>All H+T Loans to include conditions and milestones to be met by specific dates, as deemed appropriate by Originating CDFI; those conditions and milestones might include, but not be limited to:</p> <ul style="list-style-type: none"> • Architectural work and filing plans with the appropriate municipal building department • Filing entitlement requests and environmental remediation plans • Applying for loans and grants, tax credits, equity, and other items required to bring the Program Project to a construction loan closing.
25. <u>H+T Loan:</u> Evidence of Permissive Zoning	The CDFI Project Loan Borrower shall provide to the Originating CDFI evidence that the redevelopment of the Property, as proposed, is permissible under applicable zoning ordinances or regulations or alternatively, a statement of the proposed action required to make the proposed redevelopment of the property permissible and the basis for the belief that obtaining the required entitlements is feasible.

<p>26. <u>H+T Loan:</u> Property Condition Report</p>	<p>CDFI Project Loan Borrower shall provide a current Property Condition Report acceptable to Originating CDFI (or Originating CDFI will order one at the CDFI Project Loan Borrower's expense), covering a period equal to the term of the H+T Loan.</p> <p>Originating CDFI's willingness to make the H+T Loan will be conditioned upon CDFI Project Loan Borrower's agreement to address life and safety issues, if any, within a timeframe approved by Originating CDFI. Report fees are the responsibility of the CDFI Project Loan Borrower regardless of whether the H+T Loan closes.</p>
<p>27. <u>H+T Loan:</u> Seismic Requirements</p>	<p>The following types of properties are ineligible for H+T Loans except on an exception basis:</p> <ul style="list-style-type: none"> • Unreinforced masonry buildings • Buildings constructed on a slope in excess of 30 degrees • Buildings with un-reinforced tuck-under parking built prior to 1980. • Properties located in Alquist Priolo Zones <p>The following types of properties require Probable Maximum Loss (PML) studies prepared by an engineer qualified to perform geological assessments, engaged by CDFI Project Loan Borrower, meeting the Originating CDFI requirements. The studies must show a probable maximum loss that does not exceed 20%, using a 10%/50 year exceedance probability.</p> <p>(1) Seismic zones 3 and 4</p> <ul style="list-style-type: none"> ○ Reinforced masonry buildings and pre-cast concrete or tilt-up buildings constructed prior to 1994 ○ Reinforced concrete frame or reinforced concrete shear wall buildings constructed prior to 1976 ○ Wood frame buildings on unbraced cripple walls ○ Wood frame buildings without anchorage to foundation ○ Any building with a soft story at the first level above grade <p>(2) Seismic zone 4 only</p> <ul style="list-style-type: none"> ○ Buildings on sites with significant liquefaction potential ○ Buildings with tuck-under parking constructed prior to 1988 <p>Originating CDFI will consider exceptions to all categories above when, prior to closing, CDFI Project Loan Borrower can provide an engineering plan and demonstrate sufficient funding to perform the scope of work recommended by the plan to bring a PML below 20%. The CDFI Project Loan Borrower will be required to complete the scope of work within 6 months of closing.</p>

<p>28. <u>H+T Loan:</u> Appraisal</p>	<p>An appraisal must be completed with an As Is Market Value and Prospective Market Value at Stabilization based on restricted rents, reflecting restrictions that would survive the term of the H+T Loan for more than a year. The appraisal must be commissioned by the Originating CDFI in accordance with its appraisal requirements. An Appraisal must include an insurable value.</p>
<p>29. <u>H+T Loan:</u> Environmental Requirements</p>	<p>The CDFI Project Loan Borrower shall provide to the Originating CDFI a current (within 6 months of loan closing) Phase I Environmental Site Assessment of the Property. If a current Assessment is not available, Originating CDFI will order a new one or, if an available Assessment is more than six months old, the Originating CDFI may require an update thereof. The Assessment or any update thereof shall be conducted by a qualified environmental firm and prepared in accordance within industry standards using the most recent ASTM Standard Practice E1527, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”. A Phase II Environmental Site Assessment will be required if the Phase I recommends obtaining a Phase II. Phase I Environmental Site Assessment and Phase II, if necessary, must be acceptable to Originating CDFI. As with all third party reports, the CDFI Project Loan Borrower shall be responsible for the expense, regardless of whether the H+T Loan closes.</p>
<p>30. <u>H+T Loan:</u> Financial Statements</p>	<p><u>For-profit CDFI Project Loan Borrowers</u> must provide current accountant-reviewed or compiled financial statements for three full reporting years, certified financial statements for three full reporting years for principals, and year-to-date and operating statements, as well as a Real Estate Owned Schedule.</p> <p><u>Nonprofit CDFI Project Loan Borrowers</u> must provide audited financial statements for three full years, and year-to-date and operating statements for the current year, as well as a Real Estate Owned Schedule.</p> <p><u>Applicable to All CDFI Project Loan Borrowers:</u> Updated financial statements to be provided at least annually for CDFI Project Loan Borrowers, Sponsors, and/or Principals. More frequent reporting may be required at the Originating CDFI’s discretion.</p> <p>All CDFI Project Loan Borrowers and guarantors shall be required to provide details regarding any unsecured debt and contingent liabilities, as requested by the Originating CDFI.</p>

<p>31. <u>H+T Loan:</u> Financial Covenants</p>	<p>The following covenants are to be met at CDFI Project Loan closing and tested on an annual basis based on the financial statements required under the “Financial Statements” in <u>Section 30</u> above.</p> <p>The CDFI Project Loan Borrower/Sponsor/Guarantor entity (as determined by Originating CDFI) must have a stable financial history and strong financial position, as demonstrated by meeting at least two of the following three key financial ratios:</p> <ul style="list-style-type: none"> • Acid ratio: cash and cash equivalents to current liabilities equal to at least 0.4: 1; • positive cash flow from operations, on average for the past three years; and • total debt to net assets (equity) no greater than 3.5:1. <p>Specific requirements for certain H+T Loans:</p> <p>For H+T Loans where Tranches B (Program Funders in pari passu position) and C (CDFI funds) in aggregate are above 100% LTV:</p> <ul style="list-style-type: none"> ○ Additional liquidity covenant: the CDFI Project Loan Borrower/sponsor (as determined by Originating CDFI) need to demonstrate that it has in cash the equivalent of the amount of Tranche B of the H+T Loan above 100% LTV. The calculation does not include Tranche A (LACMTA top loss); ○ The ongoing financial covenants are similar to the standard covenants for secured H+T Loans except for the following: ○ The acid ratio is modified to: “cash and cash equivalents to current liabilities equal to at least 0.6: 1”; ○ The financial covenant is modified to: “meeting at least two of the following three key financial ratios, including in any case the acid ratio” <p>In addition, the CDFI Project Loan Borrower/Sponsor shall certify:</p> <ul style="list-style-type: none"> ○ no negative financial history (bankruptcy, etc.); and ○ no failure to perform under loans, investor agreements or regulatory agreements.
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32. <u>H+T Loan:</u> Additional Secured Debt	Any additional debt secured on the Property shall be subordinate to the H+T CDFI Project Loan. The debt terms and subordination agreement shall be acceptable to the applicable Originating CDFI.
33. <u>H+T Loan:</u> Insurance Requirements	Liability, property and hazard insurance required from an insurance company with an acceptable rating (minimum A, category VI).
34. <u>H+T Loan:</u> Good Faith Deposit	To be provided to the Originating CDFI by applicant, if required, prior to any third-party reports being ordered. Third party reports may include appraisal, Phase I environmental assessment, property condition report, plan and cost review for proposed scope of work to be done during the term of the loan. The required third-party reports will be determined by the Originating CDFI based upon the scope of the Program Project. Amount of the deposit (might be called application or due diligence fee) will be at the discretion of the Originating CDFI.

b. Predevelopment Loans

The Predevelopment Loan product provides predevelopment financing for CDFI Project Loan Borrowers who are developing a new affordable housing, transit oriented development project on an eligible Property.

**PREDEVELOPMENT LOAN CRITERIA AND REQUIREMENTS
TABLE**

35. <u>Predevelopment Loan:</u> Eligible Program Project and Property	<p>Program Projects must be related to the production of new affordable units through new construction or substantial rehab. CDFI Project Borrower shall demonstrate evidence of site control and an achievable strategy and schedule of milestones for acquiring the property, developing the project, securing the construction and permanent financing. Predevelopment Loans support projects that will use Low Income Housing Tax Credits and local subsidies but might also compete well for permanent financing such as the Strategic Growth Council’s Affordable Housing and Sustainable Communities (AHSC) program or Los Angeles County’s affordable housing funds.</p> <p>The planned Program Project must have a minimum unit size of 49 units.</p>
36. <u>Predevelopment Loan:</u> Eligible Borrower	<p>Eligible CDFI Project Loan Borrower are non-profit developers or for-profit developers in joint-venture with non-profit developers:</p> <ul style="list-style-type: none"> • with a minimum of 5 years of experience in affordable housing development, a successful track record of obtaining entitlements and financing (public and private), completing and

	<p>operating at least 4 affordable housing projects similar or larger in scope, size and budget than the Program Project submitted for consideration;</p> <ul style="list-style-type: none"> • adequate organizational capacity and stability, without material defaults or material adverse financial change; • familiarity with the displacement issues affecting low-income residents in the targeted communities; and, <p>With respect to joint ventures, at least one of the team members must individually satisfy the foregoing experience threshold and other requirements.</p> <p>If the CDFI Project Loan Borrower is a Single Purpose Entity (SPE), the requirements in the 3 bullet items above can be met by the Guarantor or Sponsor, as deemed acceptable to the Originating CDFI.</p> <p>In regards to joint ventures with non-profit developers, the MATCH Program encourages strong joint venture partnerships with neighborhood-based community development corporations (CDC) or community based organizations (CBO) as a strategy to optimize developers' different strengths and expertise and to use the CDCs' and CBOs' familiarity with communities, particularly in addressing displacement issues. A joint venture agreement shall specify an active role for the CDC or CBO partner in regards to the following activities: development and design of the Program Project for the population served, property management or resident services</p> <p>When the CDFI Project Loan Borrower entity includes a for-profit, priority will be given to partnerships that include community based (CDC or CBO) nonprofit developers with <u>limited access</u> to other predevelopment loan sources.</p>
<p>37. <u>Predevelopment Loan: Eligible Costs and Uses</u></p>	<p>Predevelopment Loan proceeds shall be used for Program Project predevelopment costs, as acceptable to the Originating CDFI, which include but are not limited to: architecture, engineering, environmental studies, surveys, market studies, entitlements and permits, various consulting expenses, appraisals, deposits or other site control expenses, escrow, title and broker fees, property taxes, site security, financing fees and other holding/carrying costs.</p> <p>Draw requests shall be accompanied by invoices related to the Program Project. Draw requests shall not be submitted more than once a month. The Predevelopment Loan proceeds shall not be used to cover the organization's administrative expenses.</p>
<p>38. <u>Predevelopment Loan: Site Control</u></p>	<p>CDFI Project Loan Borrower must have demonstrable site control of the subject Property through ownership, a purchase and sale agreement, an Exclusive Negotiating Agreement, a Disposition and</p>

	<p>Development Agreement or other form of site control as approved by the Originating CDFI.</p>
<p>39. <u>Predevelopment Loan: Sites Requirements</u></p>	<ul style="list-style-type: none"> • Site must be located within a half mile of an HQTN. • Preference will be given to projects that evidence a safe path of travel to transit from the Program Project (i.e. residents of the Program Project must be able to safely walk or bike to a nearby transit stop or station on existing or planned sidewalks or bicycle lanes and crosswalks at major intersections.) LACMTA will verify this condition in the same manner as set forth above with respect to H+T Loans.
<p>40. <u>Predevelopment Loan: Program Charitable Purpose Requirement; Closing Requirements</u></p>	<p>The Program Project, as planned, must meet the Program Charitable Purpose Requirement. The following requirements must be met upon the closing of a Predevelopment Loan:</p> <ul style="list-style-type: none"> • An ORIGINATING CDFI CHARITABLE PURPOSE CLOSING CERTIFICATE has been executed by the applicable Originating CDFI and delivered to MATCH LLC, and in which Certificate the Originating CDFI (i) confirms that the Program Project furthers the Originating CDFI’s Charitable Purpose and (ii), as determined by the Originating CDFI’s during its underwriting and review process, identifies the Program Charitable Purpose Requirement test (i.e. either the Safe Harbor Test, the Facts and Circumstances Test, or the Combatting Community Deterioration Test) that the planned Program Project will meet; • A CDFI PROJECT LOAN AGREEMENT RIDER has been executed by the applicable Originating CDFI and the CDFI Project Loan Borrower and delivered to MATCH LLC (“<u>Predevelopment Loan Rider</u>”). <p>The Originating CDFI Charitable Purpose Closing Certificate and the Predevelopment Loan Rider shall be in the form attached to the Origination and Participation Agreements.</p> <p>As part of the Annual Reporting submittals described in <u>VI</u> of these Program Guidelines and Requirements, CDFI Project Loan Borrowers will be required to submit an annual self-certification that the planned Program Project will meet the Program Charitable Purpose Requirement.</p>

<p>41. <u>Predevelopment Loan: Maximum Predevelopment Loan Amount; Initial and Supplemental Tranches</u></p>	<ul style="list-style-type: none"> • The maximum Predevelopment Loan amount is \$1,500,000, which amount may be advanced as one (1) loan or as two (2) loans, as described in A. and B. below. <p>The Originating CDFI's funding obligation with respect to a Predevelopment Loan shall be limited to \$500,000, which amount shall be advanced on the first \$1,000,000 of any Predevelopment Loan on a 50/50 basis with a \$500,000 advance from MATCH LLC. Any Predevelopment Loan amounts in excess of \$1,000,000 shall be advanced 100% by MATCH LLC.</p> <p>A. If a Predevelopment Loan is less than \$1,000,000, there will be no Supplemental Loan (as defined in B.).</p> <p>B. If a Predevelopment Loan is at least \$1,000,000, but less than \$1,500,000 (an "<u>Initial Predevelopment Loan</u>"), then the Originating Lender may make a subsequent "<u>Supplemental Predevelopment Loan</u>" to the same CDFI Project Loan Borrower for the same Program Project in an amount up to the difference between \$1,500,000 and the amount of the Initial Predevelopment Loan.</p> <p>For the purposes of determining the funding obligations as between the Originating CDFI and the MATCH LLC (and the other provisions of these Program Guidelines and Requirements) an Initial Predevelopment Loan and the related Supplemental Predevelopment Loan are considered as single Predevelopment Loan, unless the context otherwise dictates. An Initial Predevelopment Loan and the related Supplemental Predevelopment will be cross-defaulted.</p> <p>In addition to any other conditions that an Originating CDFI may elect to impose with respect to an Initial Predevelopment Loan that is in excess of \$1,000,000, any advance of such excess to a CDFI Project Loan Borrower will be contingent on such CDFI Project Loan Borrower demonstrating committed construction/permanent financing for the Program Project (including Low Income Housing Tax Credit award, Letters of Interest for equity and soft commitment for conventional debt), and meeting all financial covenants, reporting requirements and milestones per the loan agreement, as confirmed by the Originating CDFI.</p> <p>In addition to any other conditions that an Originating CDFI may elect to impose with respect to a Supplemental Predevelopment Loan, any advance of such Supplemental Loan to a CDFI Project Loan Borrower will be contingent on such CDFI Project Loan Borrower demonstrating committed construction/permanent financing for the Program Project (including Low Income Housing Tax Credit award, Letters of Interest for equity and soft commitment for conventional debt), and meeting all financial covenants, reporting requirements and milestones per the loan</p>
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	<p>agreement, as confirmed by the Originating CDFI.</p> <ul style="list-style-type: none">• For Predevelopment Loans, “<u>Applicable CDFI Portion</u>” shall mean <u>50%</u> of the first <u>\$1,000,000</u> of the Predevelopment Loan amount, and “<u>Applicable MATCH LLC Portion</u>” shall mean <u>50%</u> of the first <u>\$1,000,000</u> and <u>100%</u> of the Predevelopment Loan amount in excess of <u>\$1,000,000</u>.• Each Predevelopment Loan will include the following Tranches of Funding:<ul style="list-style-type: none">• Tranche C is in the senior position and consists 100% of Applicable CDFI Portion of each Predevelopment Loan;• Tranche B is in the second subordinate position senior to Tranche A and consists of 72.22% of the Applicable MATCH LLC Portion of each Predevelopment Loan. Tranche B is funded with the LACMTA and the Foundation Funders funds pari passu in the following percentages: 30.77% from LACMTA and 69.23% from the Foundation Funders’ funds (which Foundation Funders’ funds being comprised of a pro-rata proportion of each Foundation Funder’s committed Program Loan amount);• Tranche A is in the first subordinate position, in junior position to Tranche B and consists of 27.78% of the Applicable MATCH LLC Portion of each Predevelopment Loan. Tranche A is funded by LACMTA.
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42. <u>Predevelopment Loan: Term</u>	<p>Up to 24 months, with a 12-month extension option subject to replenishment of the interest reserve as deemed appropriate by the Originating CDFI and approval of the extension by the Originating CDFI and all of the Program Funders.</p> <p>The maturity date of any Supplemental Predevelopment Loan shall be co-terminus with the maturity date of the related initial Predevelopment Loan.</p>
43. <u>Predevelopment Loan: Outside Loan Maturity Date</u>	<p>Notwithstanding the foregoing, no maturity date of any Predevelopment Loan shall occur, or be extended, beyond the 12th anniversary date of Project Effective Date.</p>
44. <u>Predevelopment Loan: Repayment and Interest</u>	<p>Interest only shall be paid from an interest reserve (as described in <u>Section 52</u> below) established as part of the Predevelopment Loan budget and advanced from Predevelopment Loan proceeds as interest costs are incurred. Originating CDFI will consider CDFI Project Loan Borrower resources to approve a partial interest reserve, subject to the CDFI Project Loan Borrower/sponsor meeting a 1.20:1.00 Debt Coverage Ratio at the corporate level (the Originating CDFI will determine the appropriate entity to apply the ratio to). Principal repaid at the earliest of: (i) maturity (ii) upon refinancing or (iii) receipt of identified repayment sources.</p>
45. <u>Predevelopment Loan: Prepayment</u>	<p>There will be no prepayment penalty charged on any prepayment of a Predevelopment Loan.</p>
46. <u>Predevelopment Loan: Collateral</u>	<p>Unsecured</p>
47. <u>Predevelopment Loan: Recourse/ Guaranty</u>	<p>Predevelopment Loans are 100% recourse to CDFI Project Loan Borrower.</p> <p>Repayment Guaranty: If CDFI Project Loan Borrower is a SPE, repayment guaranty in the full amount of the Predevelopment Loan is required, as deemed appropriate by the Originating CDFI from either (i) the Sponsor/parent company of SPE CDFI Project Loan Borrower and/or (ii), for a for-profit sponsor only, the principals of the SPE CDFI Project Loan Borrower or the principals of the members or partners of the SPE CDFI Project Loan Borrower.</p> <p>For-profit/Non-profit Joint Venture: guarantee as described above required from an entity or entities determined by the Originating CDFI.</p>
48. <u>Predevelopment Loan: Sponsor Equity</u>	<p>The greater of \$50,000 or 3-5% of predevelopment costs (defined as predevelopment costs to construction closing, as estimated by CDFI Project Loan Borrower), funded in cash prior to, or at closing.</p>

	Exceptions for non-profit borrowers subject to approval by Originating CDFI. The percentage at the discretion of Originating CDFI.
49. <u>Predevelopment Loan: Sponsor Concentration; Project Concentration</u>	The same limitations as set forth in <u>Section 17</u> above.
50. <u>Predevelopment Loan: Origination Fee</u>	<p>CDFI Project Loan Borrower shall pay a loan origination fee (applied to the total CDFI Project Loan) as determined by the Originating CDFI, due upon loan closing. The Originating CDFI may charge a good faith deposit, which shall be credited against the Origination Fee.</p> <p>MATCH LLC is not entitled to receive any portion of any origination fee charged by a Originating CDFI.</p>
51. <u>Predevelopment Loan: Interest rate</u>	<p>Predevelopment Loan interest rates will be a blended rate comprised of the following:</p> <ol style="list-style-type: none"> a. An interest rate on the Applicable CDFI Portion of the Predevelopment Loan at a rate determined by the Originating CDFI in accordance with its then normal rates for similar predevelopment loans; b. An interest rate on the Applicable MATCH LLC Portion of the Predevelopment Loan at an “all-in” rate of <u>3.25%</u>, which rate consists of <ol style="list-style-type: none"> 1. 1% interest rate on LACMTA’s funds and 2% interest rate on the funds from the Foundation Funders, which rates will be blended for an interest rate of <u>1.5%</u> payable on the Applicable MATCH LLC Portion; and 2. The following fees: <ul style="list-style-type: none"> • Program Administrative Agent Fee <u>1.0% (100 bps)</u> • MATCH LLC Fee: <u>0.4% (40 bps)</u> • Servicing Fee to Originating CDFI: <u>0.35% (35 bps)</u>
52. <u>Predevelopment Loan: Interest Reserve</u>	As determined by the Originating CDFI, some or all of the projected loan interest for the term of the Predevelopment Loan is capitalized at closing in an interest reserve. The Interest Reserve will be established at the closing pursuant to a withholding of the applicable interest reserve amounts by the Originating CDFI and MATCH LLC from their respective portions of the Predevelopment Loan proceeds. The withheld amounts will be applied by the Originating CDFI and MATCH LLC towards monthly interest payments as they become due and payable. For the avoidance of doubt, CDFI Project Loan interest shall

	only accrue on portions of the withheld interest reserve that are applied to interest pursuant to the preceding sentence.
53. <u>Predevelopment Loan: Future Development Plans</u>	The CDFI Project Loan Borrower shall provide to the Originating CDFI a Program Project description, development budget, sources and uses proforma (construction and permanent phases), letters of interest from funding sources for all phases that can be reasonably obtained during the underwriting period – including market-rate and subsidized debt and equity providers – must be reviewed and evaluated by the Originating CDFI.
54. <u>Project Milestones</u>	<p>A Budget for predevelopment costs must be submitted by the CDFI Project Loan Borrower to, and must be approved by, the Originating CDFI prior to final approval of a Predevelopment Loan.</p> <p>All Predevelopment Loans to include conditions and milestones to be met by specific dates, as deemed appropriate by Originating CDFI; those conditions and milestones might include, but not be limited to:</p> <ul style="list-style-type: none"> • Architectural work and filing plans with the appropriate municipal building department • Filing entitlement requests and environmental remediation plans • Applying for loans and grants, tax credits, equity, and other items required to bring the housing Program Project to a construction loan closing.
55. <u>Predevelopment Loan: Evidence of Permissive Zoning</u>	The CDFI Project Loan Borrower shall provide to the Originating CDFI evidence that the redevelopment of the Property, as proposed, is permissible under applicable zoning ordinances or regulations or, alternatively, a statement of the proposed action required to make the proposed redevelopment of the property permissible and the basis for the belief that obtaining the required entitlements is feasible.
56. <u>Predevelopment Loan: Financial Statements</u>	<p><u>For-profit CDFI Project Loan Borrowers</u> must provide current accountant-reviewed or compiled financial statements for three full reporting years, certified financial statements for three full reporting years for principals, and year-to-date and operating statements, as well as a Real Estate Owned Schedule.</p> <p><u>Nonprofit CDFI Project Loan Borrowers</u> must provide audited financial statements for three full years, and year-to-date and operating statements for the current year, as well as a Real Estate Owned Schedule.</p> <p><u>Applicable to All CDFI Project Loan Borrowers:</u></p>

	<p>Updated financial statements to be provided at least annually for CDFI Project Loan Borrowers, Sponsors, and/or Principals. More frequent reporting may be required at the Originating CDFI's discretion.</p> <p>All CDFI Project Loan Borrowers and guarantors shall be required to provide details regarding any unsecured debt and contingent liabilities, as requested by the Originating CDFI.</p>
<p>57. <u>Predevelopment Loan: Financial Covenants</u></p>	<p>The following covenants are to be met at CDFI Project Loan closing and tested on an annual basis based on the financial statements required under the "Financial Reporting" in <u>Section 56</u> above.</p> <p>The CDFI Project Loan Borrower/Sponsor/Guarantor entity (as determined by Originating CDFI) must have a stable financial history and strong financial position, as demonstrated by meeting at least two of the following three key financial ratios:</p> <ul style="list-style-type: none"> • Acid Ratio: cash and cash equivalents to current liabilities equal to at least 0.6: 1; • cash flow from operations equal to at least 3% of unrestricted revenue, on average for the past three years; and • total debt to net assets (equity) no greater than 3.5:1. <p>The amount of unsecured debt shall be sized to ensure that unrestricted net assets are equal to at least 125% of total unsecured debt, including the proposed unsecured Predevelopment Loan.</p> <p>In addition, the CDFI Project Loan Borrower/sponsor shall certify:</p> <ul style="list-style-type: none"> • no negative financial history (bankruptcy, etc.); and • no failure to perform under loans, investor agreements or regulatory agreements. <p>The Originating CDFI shall approve of any CDFI Project Loan Borrower or Guarantor additional unsecured debt that is not in the ordinary course of CDFI Project Loan Borrower's and/or Guarantor's business.</p>
<p>58. <u>Predevelopment Loan: Insurance Requirements</u></p>	<p>Liability, property and hazard insurance (if Property is owned) required from an insurance company with an acceptable rating (minimum A , category VI).</p>
<p>59. <u>Predevelopment Loan: Good Faith Deposit</u></p>	<p>To be provided to the Originating CDFI by applicant, if required, prior to the Originating CDFI's underwriting work. Amount of the deposit (might be called application or due diligence fee) will be at the discretion of the Originating CDFI.</p>

V. CDFI Project Loans Underwriting and Closing Process.

As the intermediary between the Program Funders and the Originating CDFIs, MATCH LLC will directly, and through its agent, the Program Administrative Agent, oversee and coordinate the process by which the Program Administrative Agent (on behalf of MATCH LLC) and the Program Funders confirm compliance of each CDFI Project Loan with these Program Guidelines and Requirements.

The funding decision as to an Originating CDFI's portion of each CDFI Project Loan is to be made by the applicable Originating CDFI (who shall have no financial interest in the underlying development project) based upon the underwriting conducted by the Originating CDFI utilizing the Standard Underwriting Criteria set forth in these Program Guidelines and Requirements. Neither MATCH LLC nor the Program Administrative Agent will have a credit review or underwriting role in connection with the CDFI Project Loans.

The Program Administrative Agent and the Program Funders will review the Loan Package, as defined in subsection b. below, submitted by the Originating CDFI for each CDFI Project Loan to confirm that such Loan Package indicates compliance with these Program Guidelines and Requirements per the process hereby described.

a. Preliminary Request.

The Originating CDFI shall make a request (the "Preliminary Request") to the Program Administrative Agent with respect to a proposed CDFI Project Loan by providing (i) a term sheet signed by the CDFI Project Loan Borrower; (ii) the designation of the proposed CDFI Project Loan as either a H+T Loan or a Predevelopment Loan, (iii) such items of the Loan Package (as described in subsection b. below) as are available at the time of the request (items submitted for Preliminary Request might consist of (and as examples only)—as appropriate for the applicable MATCH Program loan product—a description of the Program Project, the form of site control, a current occupancy preliminary description, a preliminary sources and uses proforma, or a project timeline to pay off); and (iv) preliminary confirmation via email that the proposed CDFI Project Loan appears to conform with the MATCH Standard Underwriting Criteria and that the applicable Program Project will be able to meet the Program Charitable Purpose Requirement.

The Preliminary Request should list any exceptions to the Standard Underwriting Criteria anticipated by the Originating CDFI at the time of submission. The Program Administrative Agent will seek an initial indication of support for the exception(s) from the Program Funders, provided that any such indication will not be construed as an approval of the exception(s). Within five (5) business days after the Program Administrative Agent's receipt of the Preliminary Request (and all required components thereof), the Program Administrative Agent will send the Originating CDFI a notice (a "Reservation of Funds") that (a) the MATCH LLC funds are available and will be reserved for the proposed CDFI Project Loan for a ninety (90)-day period (the "90-Day Reservation Period") during which the Originating CDFI will, subject to subsection b. below, underwrite the CDFI Project Loan or (b) the MATCH LLC funds are not available because the proposed CDFI Project Loan would exceed the applicable Product Allocation Limits, as determined by the Program Administrative Agent based upon the then outstanding CDFI Project Loans.

Notwithstanding any contrary provision of this Article V, MATCH LLC's participation in a CDFI Project Loan proposed by an Originating CDFI shall be subject to the following preconditions (the "CDFI Preconditions"):

- i. Since the Program Effective Date, no material adverse change in such Originating CDFI's financial condition or ability to carry out the charitable purposes of the MATCH Program has occurred; and
- ii. No more than two of the CDFI Project Loans previously originated by such Originating CDFI have experienced an Event of Default under the applicable CDFI Project Loan Documents, which Events of Defaults are continuing after applicable notice and cure.

b. Program Funders' Confirmation; Commitment of MATCH LLC Funds:

After receipt of the Reservation of Funds notice and the Borrower Submission Package (as defined in subsection g. below) and the completion of the Originating CDFI's underwriting, the Originating CDFI shall send to the Program Administrative Agent the following items (collectively, the "Loan Package"): (i) the applicable Borrower Submission Package, (ii) a certificate executed by the Originating CDFI (a "CDFI Lending Certificate"), in the form attached to each Origination and Participation Agreement, certifying that the proposed CDFI Project Loan conforms with the MATCH Standard Underwriting Criteria other than those exceptions, if any, as are specified in the Certificate ("Proposed Underwriting Exceptions"), and (iii) an Originating CDFI Charitable Purpose Closing Certificate executed by the Originating CDFI, in the form attached to each Origination and Participation Agreement.

The Program Administrative Agent shall send the Loan Package to the Program Funders within two (2) business days of receipt from the Originating Lender. The Program Funders and MATCH LLC shall have ten (10) business days (the "Review Period") (i) to confirm that the proposed CDFI Project Loan complies with these Program Guidelines and Requirements (a "Compliance Confirmation") and (ii) to approve or reject any Proposed Underwriting Exceptions. If there is no response from a Program Funder or MATCH LLC to the Program Administrative Agent (in writing or via electronic communication) within such Review Period, then such Program Funder MATCH LLC shall be deemed to have provided a Compliance Confirmation and its approval of any Proposed Underwriting Exceptions.

The Originating CDFI shall set up a call for interested Program Funders and the Program Administrative Agent on or before the 10th business day of the Review Period to discuss the subject CDFI Project Loan transaction. In advance of that call, any Program Funder may send questions in writing to the Program Administrative Agent, to be forwarded to and addressed by the Originating CDFI. Those written questions shall be addressed on the call if they have not been addressed in writing prior to the call to the satisfaction of the Program Funders. The call is not mandatory, and if all Program Funders have provided their respective Compliance Confirmations and Proposed Underwriting Exceptions approvals and/or have not sent any questions, the Originating CDFI will cancel the call. If the call occurs, all Program Funders shall have two (2) business days after the call (and the Review Period shall be extended as may be necessary to accommodate such two (2) business day period) to provide (in writing or via electronic communication) their respective Compliance Confirmation and approval or rejection to any Proposed Underwriting Exceptions; provided, however, if there is no response from a Program Funder to the Program Administrative Agent (in writing or via electronic communication) within such two (2) business day period, such Program Lender shall be deemed to have provided such Compliance Confirmation and to have approved any Proposed Underwriting Exceptions.

Each CDFI Project Loan requires that all Program Funders and MATCH LLC have provided (or are deemed to have provided) a Compliance Confirmation and an approval of any Proposed Underwriting Exceptions.

Within fifteen (15) days following the date by which all Program Funders have provided (or are deemed to have provided) a Compliance Confirmation and an approval of any Proposed Underwriting Exceptions (after having received a Loan Package from the Program Administrative Agent), the Program Administrative Agent will deliver a written notice to the Program Funders and to the applicable Originating CDFI that the MATCH LLC funds are committed for the CDFI Project Loan (a "Commitment"), which Commitment shall be effective for a period of ninety (90) days following the date of such delivery (the "90-Day Closing Period").

c. Closing Notice:

Within two (2) business days after the Originating CDFI has received and approved all of the Closing Items (as defined below) with respect to a CDFI Project Loan, the Originating CDFI shall submit to Program Administrative Agent a "Closing Notice", in the form attached to the Origination and Participation Agreements, and copies of the final loan documents for such CDFI Project Loan ("CDFI Project Loan Documents"). Execution versions (unsigned but final) of the CDFI Project Loan Documents will be acceptable.

d. Participation/ CDFI Project Loan Advances:

i. Participation/ CDFI Project Loan Advances at Closing:

Within two (2) business days after receipt of a fully executed Closing Notice (or by any later funding date established by the Originating CDFI), MATCH LLC shall make a "Participation/CDFI Project Loan Advance" of that portion of the Applicable MATCH LLC Portion of the subject CDFI Project Loan then required to be funded; provided, however, that the Originating CDFI should have previously made or shall contemporaneously make its own advance equal to that portion of the Applicable CDFI Portion of the CDFI Project Loan then required to be funded.

ii. Subsequent Participation Advances for Predevelopment Loans:

Within ten (10) business days after submission of a subsequent draw request for a predevelopment loan, MATCH LLC shall make a subsequent Participation/CDFI Project Loan Advance for that portion of the Applicable MATCH LLC Portion of subject CDFI Project Loan then required to be funded; provided, however, that the Originating CDFI should have previously made or shall contemporaneously make its own advance equal to that portion of the Applicable CDFI Portion of the CDFI Project Loan then required to be funded.

e. Participation Certificates:

Contemporaneously with the submittal of a Closing Notice with respect to a CDFI Project Loan, the Originating CDFI shall issue to the Program Administrative Agent a Participation Certificate (in the form attached to the Origination and Participation Agreement) confirming the amount of the CDFI Project Loan and MATCH LLC's Subordinated Participation Interest therein.

f. Legal Documentation

The Originating CDFI shall send to the Program Administrative Agent a complete set of the executed CDFI Project Loan Documents no later than two (2) business days following of closing of such CDFI Project Loan. The recorded copies of recordable documents should be forwarded by the Originating Lender to the Program Administrative Agent immediately upon receipt. The Program Administrative Agent will forward copies of all documents to each Program Funder within ten (10) business days of receipt of such documents.

g. Additional Definitions:

Borrower Submission Package:

Loan Application, financial statements, property information, CDFI Project Borrower's Occupancy and Management Plan, third party due diligence reports (i.e. appraisal, Phase I Environmental, property condition report, seismic Probable Maximum Loss analysis where required for the applicable loan product), narrative project description and underwriting analysis (including analysis of any exception to the Standard Underwriting Criteria), and other items typically received from a CDFI Project Loan Borrower by the Originating CDFI in connection with a proposed CDFI Project Loan and as may be typically required by the Originating CDFI in their standard underwriting procedures.

Closing Items:

All of the executed CDFI Project Loan Documents, lender's title policy (for secured loans), and other items to be received by the Originating CDFI, as determined by the Originating CDFI, as a condition to the funding and closing of a CDFI Project Loan.

VI. Reporting.

MATCH LLC shall provide to the Program Funders the statements and reports specified in Section 6.2 of the Program Funder Agreements.

As more particularly set forth in the Origination and Participation Agreements, each Originating CDFI shall provide to MATCH LLC any information regarding the Originating CDFI, their CDFI Project Loan Borrowers, and the Program Projects (and each Originating CDFI shall, in turn, obtain pertinent information from its CDFI Project Loan Borrowers) as necessary for MATCH LLC to meet its reporting requirements to the Program Funders. The foregoing shall include the Originating CDFIs obtaining from their respective CDFI Project Loan Borrowers an annual self-certification of compliance with the Program Charitable Purpose Requirement and the corresponding income and rent restriction requirements.



Board Report

File #: 2020-0199, **File Type:** Contract

Agenda Number: 11.

PLANNING AND PROGRAMMING COMMITTEE

MAY 20, 2020

EXECUTIVE MANAGEMENT COMMITTEE

MAY 21, 2020

SUBJECT: CENTINELA GRADE SEPARATION

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING the Centinela Grade Separation Screening Analysis for Design Concepts/Engineering Design Report;
- B. APPROVING Project Definition as an Aerial Grade Separation at the Florence/Centinela Crossing of the Crenshaw/LAX Line supported by Bus Bridging during the Construction Period;
- C. FILING an environmental Statutory Exemption pursuant to CEQA;
- D. Authorizing staff to proceed with preliminary engineering and final design services on the Centinela Grade Separation. This is not a request for construction funding.

ISSUE

In December 2018 the Metro Board approved the initiation of an engineering and environmental study to support development of the Centinela Grade Separation (Item #2018-0245). The study has been conducted in cooperation with the City of Inglewood and has included the development of 15% design and a Funding and Delivery Strategy Plan for the project.

Board approval is needed to approve funding to advance engineering design to include the preparation of construction bid documents. Approval of a funding plan is needed to support final design and construction activities for the grade separation with minimal impacts to the construction, opening and operation of the Crenshaw/LAX (CLAX) LRT Project.

BACKGROUND

History

The Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for CLAX was completed in 2011. Applying Metro's Grade Crossing Policy in 2011 resulted in a determination that an at-grade crossing application was appropriate. In 2013 the California Public Utilities Commission (CPUC) granted approval of the at-grade crossing pending inclusion of several supplemental measures intended to improve safety and increase queuing and traffic capacity. The final at-grade crossing is currently nearing completion in accordance with all the CPUC's supplemental requirements.

In 2015 the City of Inglewood approved the construction of a 72,000 seat NFL Stadium approximately 1.5 miles south of the Centinela/Florence crossing. Additional development adjacent to the stadium including a performance arts venue, residential units, retail and office space, hotel rooms, and 25 acres of new recreational park and amenities were also approved. More recently, in February 2018, the City of Inglewood initiated the environmental clearance process for the proposed Inglewood Basketball and Entertainment Center (IBEC), which includes an 18,000-seat arena for the Los Angeles Clippers near the NFL stadium. Attachment A includes a map of these projects and expected events.

All of the aforementioned developments were approved or proposed after the 2011 CLAX EIR/EIS certification and are anticipated to generate additional traffic which was not considered in the original Grade Crossing Policy analysis. To mitigate some of this anticipated increase in traffic, developers have funded the citywide installation of a traffic signal priority system and the City of Inglewood has developed special event traffic and access management plans for the venues under construction and future

IBEC. The City of Inglewood remains concerned about the potential increase in regional trips and the associated traffic impacts of having an at-grade crossing at Centinela/Florence. Metro Board action in 2017 directed staff to conduct grade separation feasibility studies to address these concerns. In November 2018 the Metro Board received the initial feasibility findings and directed staff to initiate an engineering design study and supportive environmental analysis to be funded in cooperation with the City of Inglewood.

DISCUSSION

The Centinela Grade Separation Screening Analysis/Engineering Design report (Attachment B) evaluated three alternatives to be considered for grade separation (LRT Aerial Grade Separation, LRT Below Grade Undercrossing, and LRT At Grade with Centinela and Florence lowered). The analysis has identified the LRT Above Grade-Aerial Grade Separation (Attachment C) which elevates the CLAX LRT on a bridge above the Centinela/Florence at-grade intersection to be the less impactful to the community and the operation of the CLAX LRT Line. The aerial grade separation will remove the required crossing gates and warning systems currently required for the at-grade crossing. It will not have permanent right-of-way or utility impacts as noted with the other alternatives under consideration. The aerial grade separation will allow the CLAX LRT to operate efficiently and add capacity to the intersection to accommodate the mobility needs of the planned regional sports/entertainment venues in the City of Inglewood.

The preliminary project costs ranged from \$185-\$241 million with the recommended design option

falling in the middle of this range. The recommended aerial grade separation includes the costs for a bus bridge to operate during the construction phase of the project. This cost is based on advanced conceptual design (15% level of engineering) and should be considered preliminary pending further refinement in the Preliminary Engineering (30% design) and Final Design (100% design) phases of project design.

Environmental Clearance

The California Environmental Quality Act (CEQA) provides for Statutory Exemptions for certain activities and specified actions. According to CEQA Guidelines Section 15282 (g) "Any railroad grade separation project which eliminates an existing grade crossing, or which reconstructs an existing grade separation as set forth in Section 21080.13 of the Public Resources Code" is to be considered statutorily exempt from the analysis required under CEQA. The grade separation at Centinela Avenue meets the criteria for Statutorily Exempt projects.

In order to further support the Statutory Exemption finding, community outreach efforts were conducted with adjacent property owners and stakeholders in the vicinity of the project. These included the City of Inglewood Councilmembers Dotson and Padilla, Mayor Butts, Westchester Rotary Club, St. John Chrysostom Church, St. Mary's Academy and the Inglewood Park Cemetery. Outreach will continue during the upcoming design and construction phases to incorporate community concerns.

Technical reports are under development on traffic, air quality, visual, noise, vibration, real estate and acquisition, parklands and community facilities, construction impacts and utilities. Initial analysis is indicating minimal environmental impacts with the proposed grade separation project which cannot be mitigated appropriately during project design, construction and operation. The project will have significant beneficial effects on traffic and circulation.

Equity Platform

The Project is consistent with the recently adopted Metro Equity Platform Framework and will bring new benefits of enhanced mobility and regional access to minority and/or low-income populations within the Project area. In 2015, the City of Inglewood identified that 56.5 percent of its residents in Downtown Inglewood are African American and 35.7 percent are Hispanic (2015 City of Inglewood, Inglewood TOD Existing Conditions Report), while 20.7 percent of the residents in the City of Inglewood are classified as living in poverty (2017, American Community Survey). Additionally, Metro staff will work with the City of Inglewood to look to the Equity Platform Framework as the project outreach engages residents, stakeholders, elected representatives, resource agencies and community-based organizations in the project area.

DETERMINATION OF SAFETY IMPACT

These actions will not have any impact on the safety of our customers and/or employees because this project is at the beginning of the design phase.

FINANCIAL IMPACT

Funding for Design- The Board approved \$2,200,000 in the FY 2020 budget for Professional Services in Cost Center 4350, Project 405406 (Centinela Grade Separation). The sources of funds are Local Prop A, C and TDA Administrative funds. These funds are not eligible for bus and/or rail operating or capital expenses. Staff is currently working to identify additional funds for inclusion in the proposed FY 2021 budget to complete preliminary engineering and design services. Authorization for further work to proceed is subject to approval of funding in the FY 2021 budget. Since this is a multi-year project, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years.

Funding for Construction- Funding for the construction of the project is not included in the Metro Long Range Transportation Plan Financial Forecast or Measure R or Measure M Expenditure Plans and has not been approved by the Board. Should Metro pursue construction of this project, it will require a determination of payment responsibility and the identification of potential funding sources.

Metro staff is actively working with the South Bay Cities Council of Governments and the City of Inglewood to develop a funding plan for the project that considers the availability and eligibility of funding sources, and upon Board direction, attempt to secure the funds. Metro has not yet programmed any funding for the construction of the project, either directly or through the multi-year subregional programs (MSP), where projects are nominated by the subregion. The South Bay Cities COG has supported the use of \$130,000,000 for the project from one of the MSP for the subregion, the Subregional Equity Program (SEP). As construction is not a topic for discussion at present, the use of the SEP funds for funding of projects will be discussed in the June/July Board cycle. Metro has allocated funding for the SEP starting in FY 2043 in the Long Range Transportation Plan Financial Forecast and has not developed yet an administrative process to program SEP funds to the subregions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

A grade separation at Centinela/Florence intersection would support the goals outlined in the Metro Vision 2028 Strategic Plan by addressing the mobility challenges in the project area including increasing travel demand, travel times, and roadway congestion. Specifically, the Project meets Vision 2028 Goal #4, Transform LA County through regional collaboration and national leadership, as this project will be advanced through a close partnership with the City of Inglewood to solve a regional challenge, as the special events at the NFL Stadium and other event venues in and around the Entertainment District at Hollywood Park are expected to attract attendees from throughout the region.

ALTERNATIVES CONSIDERED

The Board could choose not to approve any or all the recommendations. This is not recommended as this would further delay the construction of the project and not be in operation in time for the City of Inglewood to host the planned major events (i.e. FIFA World Cup and 2028 Olympics).

NEXT STEPS

Upon Board approval, staff will proceed with preliminary engineering and final design services and continue to work with the City of Inglewood and the South Bay Cities Council of Governments to secure the necessary construction funding for the project.

ATTACHMENTS

Attachment A - Map of Inglewood Projects

Attachment B - Centinela Grade Separation Screening Analysis for Design Concepts/Engineering Design Report

Attachment C - Rendering of Above-Ground Aerial Grade Separation

Prepared by: Dolores Roybal Saltarelli, DEO, Countywide Planning & Development, (213) 922-3024

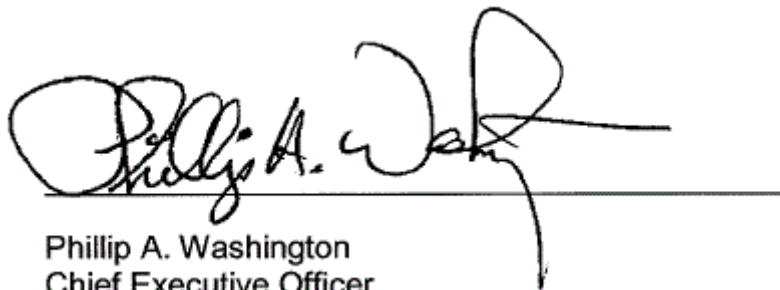
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Debra Avila, Chief Vendor Contract Management Officer, (213) 418- 3051



Phillip A. Washington
Chief Executive Officer

Map of Inglewood Projects



NFL Stadium (72,000 seats) & Performance Arena (6,000 seats)

- 50 Stadium events (incl. 22 NFL games, two on weekdays and 20 on weekends)
- 75 Arena events
- 10,000 parking spaces
- 23,600 event demand

Forum (17,500 seats)

- 82 events (37 large events)
- 3,000 parking spaces
- 5,400 event demand

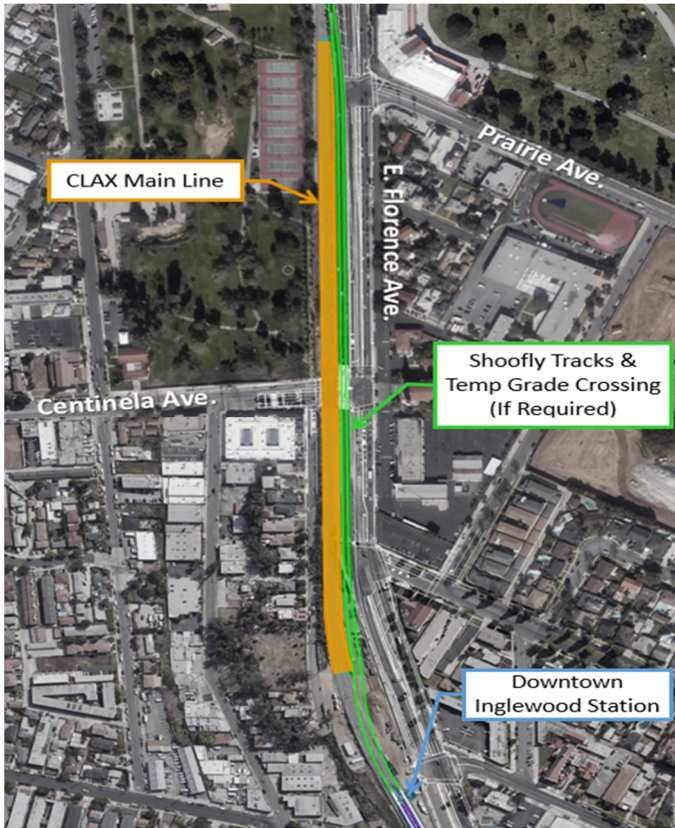
Inglewood Basketball & Entertainment Center (Clippers Arena, 18,000 seats)

- 105 events (44 large events)
- 3,500 parking spaces
- 5,700 event demand

(Event Information Source: Inglewood)

Legend

- █ Metro Green Line
- █ Metro Crenshaw/LAX Line (proposed)
- Inglewood's People Mover (proposed)



Screening Analysis for Design Concepts

Centinela/Florence Grade Separation
Conceptual Engineering Design Study

DRAFT Technical Memorandum

Inglewood, CA
May 15, 2020



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1 Introduction

The Los Angeles County Metropolitan Transportation Authority (Metro) is evaluating the Grade Separation of the Crenshaw/LAX (CLAX) light rail transit (LRT) line at the intersection of Centinela and Florence Avenues (Project). The intention of the grade separation is to address concerns about potential increases in regional trip-making and impacts to traffic at the planned at-grade crossing related to significant future development adjacent to the crossing. This planned at-grade rail crossing is located within a quarter-mile of downtown Inglewood adjacent to existing activity centers (the Forum), new projects under construction (Inglewood NFL Stadium, Performance Arena, and Hollywood Park Development Area), and proposed future activity centers and transit infrastructure (Inglewood Basketball and Entertainment Center and Transit Connector).

The purpose of this screening analysis technical memorandum (memo) is to develop grade separation alternatives to a level that helps facilitate consensus on the scope of the project so major project components and the project's footprint can be clearly defined. The alternative concept development, analysis, and initial screening criteria presented here were prepared in a collaborative effort with Metro and Metro's environmental consultant. This memo aims to describe: three (3) main design concepts and the basis of their development, initial screening criteria for high-level analysis, the results of that initial screening analysis, and a recommendation of the most promising alternative to be advanced to a 15% level of engineering.

1.1 Background

The Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for CLAX was completed in 2011. Applying Metro's Grade Crossing Policy in 2011 resulted in a determination that an at-grade crossing application was appropriate. In 2013 the California Public Utilities Commission (CPUC) granted approval of the at-grade crossing pending inclusion of several supplemental measures intended to improve safety and increase queuing and traffic capacity. The final as-built grade crossing would include all of the CPUC's supplemental requirements.

In 2015 the City of Inglewood (CITY) approved the construction of a 72,000 seat NFL Stadium approximately 1.5 miles south of the Centinela/Florence crossing. Additional development adjacent to the stadium including a performance arts venue, residential units, retail and office space, hotel rooms, and 25 acres of new recreational park and amenities were also approved. In 2018 the CITY initiated the environmental clearance process for the proposed Inglewood Basketball and Entertainment Center (IBEC). All of the aforementioned developments were approved or proposed after the 2011 CLAX EIR/EIS certification and are anticipated to generate additional traffic which was not considered in the original Grade Crossing Policy analysis.

To mitigate some of this anticipated increase in traffic, developers have funded the citywide installation of a traffic signal priority system and the CITY has developed special event traffic and access management plans for the venues under construction and future IBEC. The CITY remains concerned about the potential increase in regional trips and the associated traffic impacts of having an at-grade crossing at Centinela/Florence. A

Metro Board action in 2017 directed staff to conduct grade separation feasibility studies and initiate the environmental clearance process to address these concerns. In December 2018 the Metro Board received the initial feasibility findings and directed staff to initiate an engineering design study to be funded in cooperation with the CITY.

2 Proposed Alternatives

2.1 Alternative 1A – LRT Above Grade

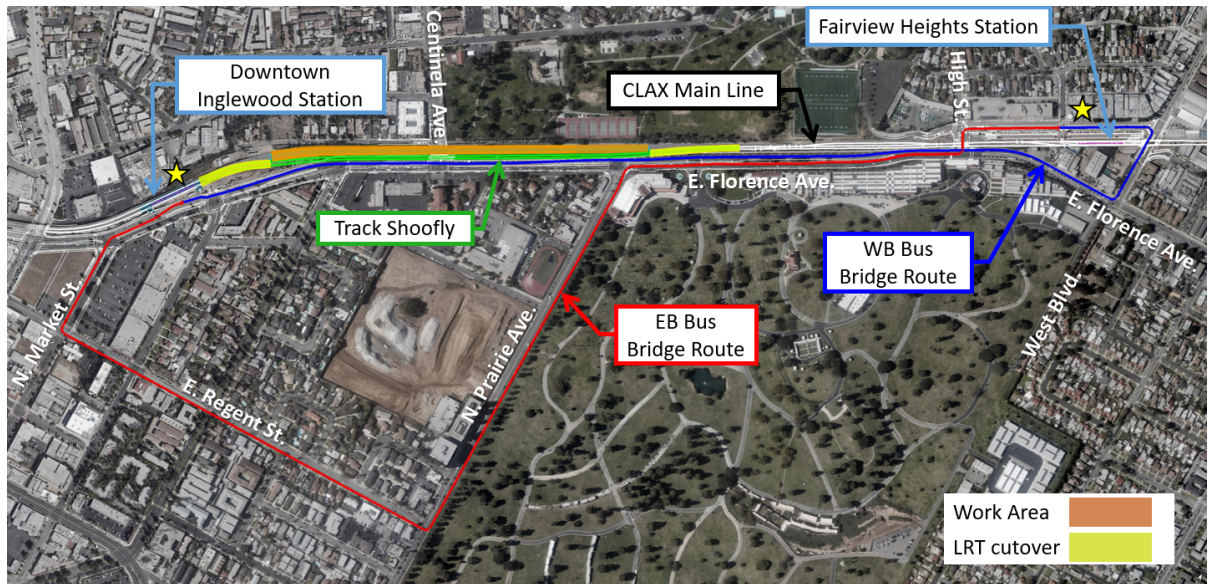
Alternative 1A proposes to elevate the CLAX LRT on retained fill with a precast concrete girder bridge above the Centinela/Florence intersection which would remain at grade. The LRT limits of Alternative 1A extend approximately 2950 feet from just east of the Downtown Inglewood Station to just west of the Fairview Heights Station. Alternative 1A utilizes a temporary double-track shoofly to maintain rail operations during the grade separation construction.

Figure 2-1. Alternative 1A – LRT Above Grade



Source: HDR

Figure 2-2. Alternative 1A – LRT Above Grade Shoofly and Temporary Bus Shuttle Route



Source: HDR

2.1.1 Geometric Configuration

Roadway

The roadway modifications in Alternative 1A would be limited to the grade crossing removal, sidewalk and curb ramp modifications at the Centinela/Florence intersection. The proposed grade separation structure would provide a minimum of 16' vertical clearance. A traffic signal proposed as part of the previous CLAX design at La Colina Drive and Centinela Avenue would need to be removed; the intersection would be changed to stop control. The sidewalk on the eastside of Centinela Avenue would extend south to the intersection of Florence Avenue and a new crossing would be introduced at the northeast and northwest corners of Florence Avenue and Centinela Avenue. The street profile of Centinela Avenue would be adjusted slightly associated with the grade crossing panel removal. La Colina Drive would remain unchanged (see Attachment A1 for Alternative 1A Roadway Layout).

LRT Alignment

The track replacement limits of Alternative 1A extend approximately 2950 feet from just east of the Downtown Inglewood Station to just west of the Fairview Heights Station.

Alternative 1A proposes to elevate the CLAX LRT line approximately 25' above the existing Centinela Avenue roadway elevation at the crossing. The track raise is proposed to be achieved using retained fill sections with ballasted track at a maximum grade of 3.3% and a precast concrete girder bridge with direct fixation track above the Centinela/Florence intersection. No changes were made to the CLAX horizontal alignment. The tracks would be on ballast on the retained fill section, and direct fixation on the bridge.

The existing CLAX horizontal alignment and the proposed vertical alignment would allow for operating speeds of 45 MPH adjacent to the Downtown Inglewood Station and 65 MPH going east over Centinela Avenue to the Fairview Heights Station. See Attachment A1 for the proposed Alternative 1A LRT plan and profile.

During construction, a temporary shoofly track would be constructed in the westbound lanes of Florence Avenue to allow LRT passenger operations to continue. The proposed shoofly horizontal and vertical alignments allow for operating speeds of up to 35 MPH adjacent to the Downtown Inglewood Station and up to 50 MPH going east along Florence Avenue towards North Prairie Avenue. See Section 2.1.7 for additional discussion on LRT operations during construction.

Key geometric characteristics of Alternative 1A are summarized in Table 2-1 below.

Condition	Horizontal Alignment	Max Grade	Vertical Clearance to Centinela Ave	Operating Speeds
Temporary	Shoofly in WB Florence Ave	Top-of-Rail (TOR) profile to match existing Florence Avenue roadway profile	Shoofly is at-grade	35 MPH adjacent to Downtown Inglewood Station, 50 MPH going east to Fairview Heights Station
Permanent	No change to CLAX alignment	3.3%	16' minimum permanent design	45 MPH adjacent to Downtown Inglewood Station, 65 MPH going east to Fairview Heights Station

Source: HDR

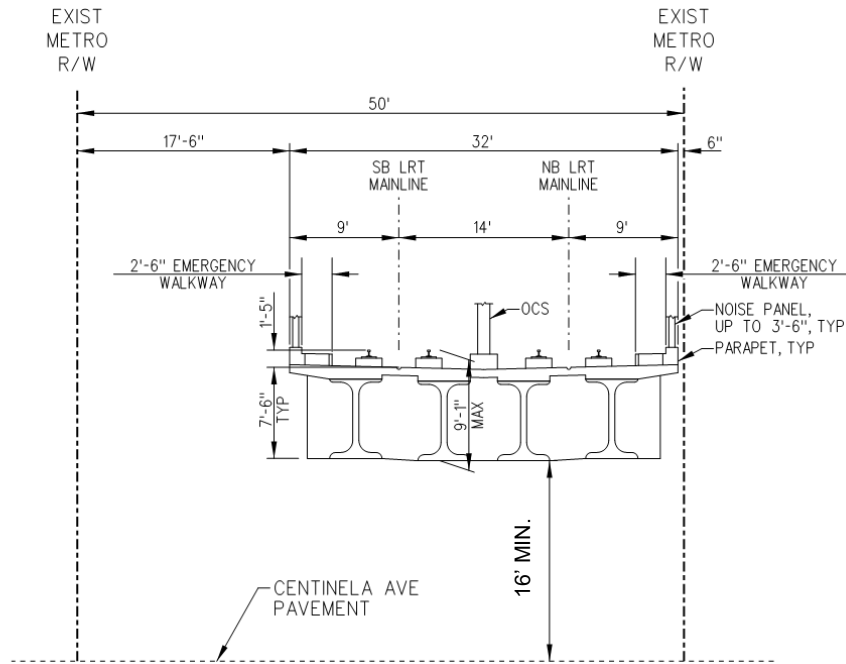
2.1.2 Right-of-Way Requirements and Impacts

No permanent right-of-way impacts are anticipated at this time.

2.1.3 Structure Configuration

The aerial structure is a single-span precast posttensioned Caltrans wide flange girder superstructure with the cast-in-place (CIP) concrete deck supported on seat type cantilever reinforced concrete abutments on pile foundations (see Figure 2-3 for preliminary bridge deck section). The overall structure width is 32 feet including emergency walkways, and total structure length is 150 feet. The proposed structure depth is 7 feet, 6 inches.

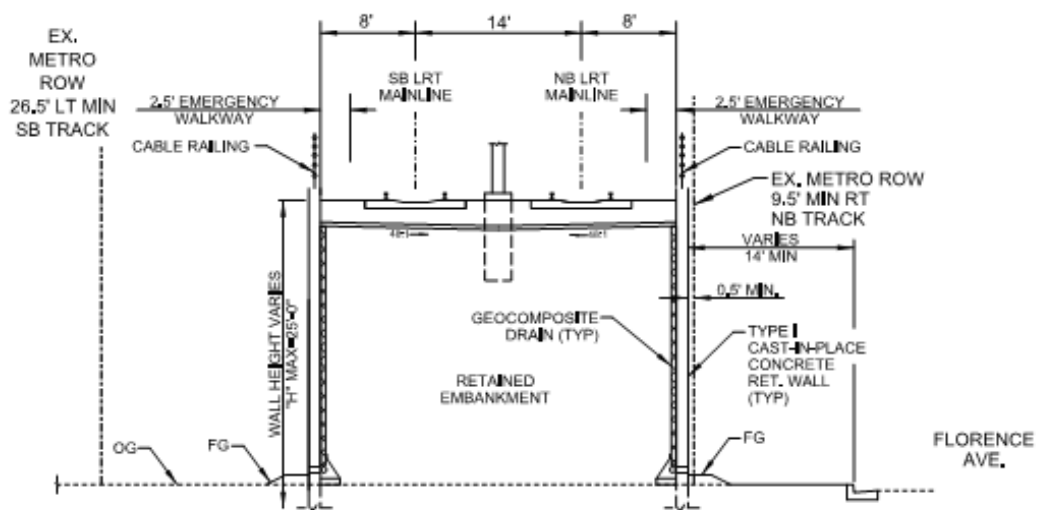
Figure 2-3. Alternative 1A – Preliminary Bridge Section



Source: HDR

The retaining walls would extend approximately 1000 feet west of Centinela and 725 feet east of Centinela. The maximum design height is approximately 25 feet. The retaining wall type, to be determined, could be cast-in-place concrete wall, or mechanically stabilized earth (MSE) wall. See Figure 2-4 for a preliminary retained fill section.

Figure 2-4. Alternative 1A – Preliminary Retained Fill Section



Source: HDR

2.1.4 Drainage Impacts

Alternative 1A would only create minor impacts to the existing drainage facilities since there is no proposed trenching or grading below the existing surface.

Drainage impacts for Alternative 1A:

- Proposed track drainage west of Centinela Avenue would flow westerly and would connect to the existing drainage network and flow back east towards Centinela Avenue within the existing underdrain
- Proposed track drainage east of Centinela Avenue would flow easterly and would connect to the existing drainage network and flow back west towards Centinela Avenue within the existing underdrain

2.1.5 Utility Impacts

The most significant conceptual relocation for all three alternatives involves an existing 60" ductile iron water line owned by LADWP Water. The line is located approximately 255' east of Centinela/Florence with approximately 7-8' of cover below the existing CLAX alignment.

The water line's location and depth place it potentially in conflict with the proposed retaining wall footings for Alternative 1A. A combination of additional protection, special footing design, or relocation, would need to be evaluated during final design in conjunction with the retaining wall type selection.

In the locations where the proposed temporary shoofly track crosses an existing utility, the utility must be protected in place by concrete encasement or steel casing.

2.1.6 Stage Construction and Traffic Handling

During construction, Alternative 1A would require shifting of the existing tracks onto WB Florence Avenue with a shoofly alignment from approximately 300' west of Hillcrest Boulevard to approximately 500' east of Prairie Avenue. A bus shuttle between the Downtown Inglewood and Fairview Heights Station would be utilized when track cutovers and signal testing occurs. See Figure 2-2.

While the lane configuration on Centinela Avenue remains unchanged, the lane configuration along Florence Avenue is reduced to accommodate the shoofly alignment between west of the Downtown Inglewood Station and east of Prairie Avenue. The shoofly alignment reduces the width of Florence Avenue by 25.5' on the west side of Centinela Avenue and by 38.5' on the east side of Centinela Avenue. Pedestrian circulation would be maintained throughout construction.

The proposed construction sequence of Alternative 1A is as follows:

1. Construct shoofly tracks and temporary grade crossing. Through traffic on Florence reduced to two lanes in each direction, the EB left turn lane at Centinela reduced to one lane.
2. Track cutover to the shoofly. CLAX line would operate on the shoofly tracks after testing. Demolish the existing tracks. Construct the proposed retaining walls and bridge abutment.

3. Temporary weekend closures of Centinela Ave to install the precast bridge girders. Traffic would be detoured, See Attachment D1.
4. Construct the bridge superstructure, tracks, OCS and other system components.
5. Track cutover to proposed track. Conduct testing. Demolish the shoofly tracks, temporary crossing. Restore street and sidewalk.

The construction duration is estimated at 29 months.

See Attachment D1 for preliminary Alternative 1A Stage Construction and Traffic Handling.

2.1.7 LRT and Bus Operations during Construction

The shoofly alignment would shift a small portion of existing track off of the CLAX main line just east of the Downtown Inglewood Station and enter Florence Avenue approximately 300' west of Hillcrest Boulevard. The shoofly continues east along Florence Avenue utilizing ballasted track embedded into Florence Avenue with TOR set to match the existing Florence Avenue roadway profile until approximately 500' east of Prairie Avenue. The shoofly alignment then turns back north out of Florence Avenue and rejoins the CLAX main line with another small segment of shifted existing track west of the Fairview Heights Station. The shoofly geometric configuration allows for operating speeds of up to 35 MPH adjacent to the Downtown Inglewood Station and up to 50 MPH going east along Florence Avenue towards North Prairie Avenue.

In addition to the CLAX main line track shifts and embedded track in Florence Avenue, temporary systems (train control, communications, and traction power), structural concrete curb walls, duct banks, and underdrains would be required for the shoofly.

A temporary at-grade crossing would also be required at the intersection of the shoofly alignment and Centinela Avenue to allow for traffic operations to continue during construction. The temporary at-grade crossing would require CPUC approval and be constructed to Permanent Grade Crossing standards including placement of temporary traffic signals, pedestrian warning devices, vehicle quadrant gates, and pedestrian swing gates, hand railing, signage and other forms of pedestrian channelization.

The shoofly tracks and construction laydown area would occupy the proposed bus terminal at the Downtown Inglewood station. The existing layout facility on La Brea Avenue south of Manchester Blvd is expected to be used for layover during construction.

The staging approach to this Alternative also requires a bus shuttle between the Downtown Inglewood and Fairview Heights Station when track cutovers and signal testing occurs. It is assumed that each track cutover between the shoofly and CLAX main line would take approximately five months. At the Downtown Inglewood station, passengers would board and alight at the curbside on Florence Avenue. At the Fairview Heights station, boarding and alighting would take place on Redondo Blvd. See Figure 2.2 for the potential bus shuttle route.

During the cutover periods, the CLAX would remain in service north of the project site, but the Light Rail Vehicles (LRV) would not have access to the maintenance yard.

Provisions are needed to accommodate light duty maintenance, daily inspections on the mainline, and hauling vehicles to and from the yard when necessary.

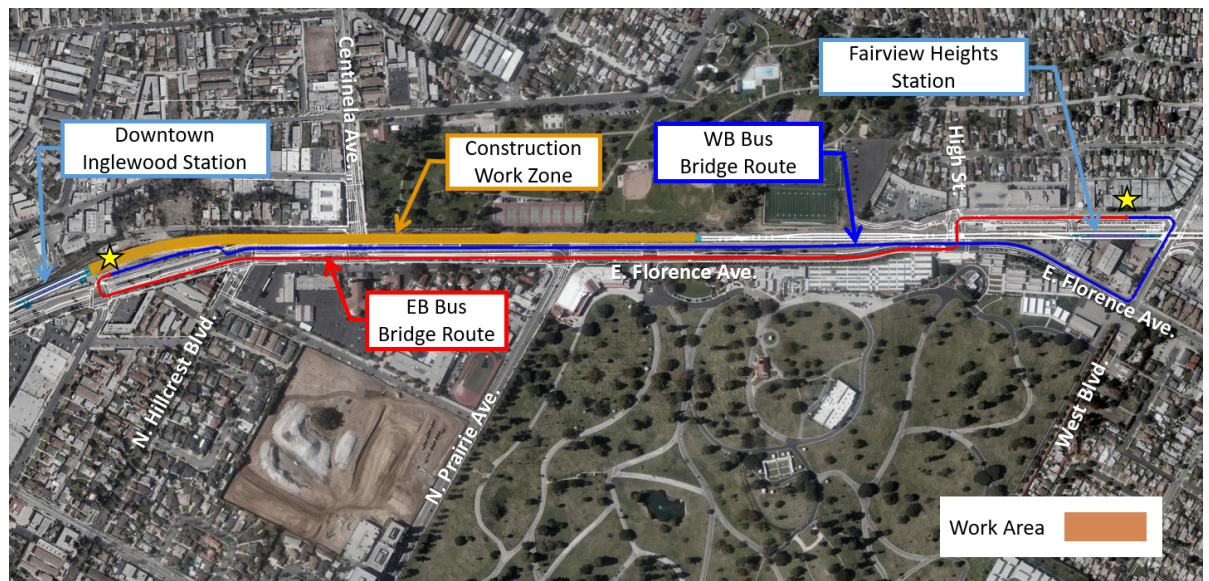
2.1.8 ROM Cost Estimate

The current ROM cost for Alternative 1A is approximately \$241M inclusive of a temporary track-shoofly and bus shuttling, all project soft cost, contingencies, and other direct and indirect costs.

2.2 Alternative 1B – LRT Above Grade Without Shoofly

Alternative 1B proposes the same track and roadway modifications as Alternative 1A but utilizes bus shuttling exclusively in place of a temporary shoofly alignment.

Figure 2-5. Alternative 1B – LRT Above Grade without Shoofly



Source: HDR

2.2.1 Geometric Configuration

Roadway

Roadway geometry would remain at its existing lane configuration with the same modifications as described in Alternative 1A.

LRT Alignment

The proposed modifications, key geometric characteristics, and operating speed for the permanent LRT condition are the same as Alternative 1A.

Utilizing a bus shuttle during construction negates the need to construct and remove a temporary shoofly track. The proposed modifications to raise the CLAX main line above Centinela/Florence would be constructed prior to the full opening of the CLAX main line

with potential night and weekend closures of the Centinela/Florence intersection as required to place the precast concrete girder bridge above the existing roadway.

2.2.2 Right-of-Way Requirements and Impacts

No permanent right-of-way impacts are anticipated at this time.

2.2.3 Structure Configuration

The structure configuration is similar to Alternative 1A.

2.2.4 Drainage Impacts

Drainage impacts are similar to Alternative 1A with the exception that shoofly underdrains and the need to accommodate shoofly related track drainage are no longer required.

2.2.5 Utility Impacts

Alternative 1B would have the same potential utility impacts and relocation approach as Alternative 1A, except all the modifications related to the shoofly. The 60" ductile iron water line owned by LADWP is the most significant potential impact.

The primary difference with Alternative 1A is that no relocations would be required in Florence Avenue to accommodate a temporary shoofly during construction.

2.2.6 Stage Construction and Traffic Handling

Alternative 1B would include the same construction activities as Alternative 1A but without the construction/demolition of the shoofly. Roadway geometry would remain at its existing lane configuration with a small impact to the northeast and northwest corners due to the implementation of k-rail to protect the proposed construction areas. There would be no need for railroad crossing gates and would therefore alleviate turning movements onto Centinela Avenue. Pedestrian circulation would be maintained throughout construction. The construction duration is estimated at 23 months. See Attachment D2 for preliminary Alternative 1B Stage Construction and Traffic Handling.

2.2.7 LRT and Bus Operations during Construction

The staging approach for Alternative 1B requires the CLAX line to be out of service between the Downtown Inglewood Station and Fairview Heights stations during construction. Alternative 1B would exclusively utilize a bus shuttle between these two stations for passenger movements during the full duration of construction.

The proposed bus terminal at the Downtown Inglewood station would be in service maintaining bus operations during construction.

The CLAX line would remain in service north of the project site during construction, but the Light Rail Vehicles (LRV) would not have access to the maintenance yard. Provisions are needed to accommodate light duty maintenance, daily inspections on the mainline, and hauling vehicles to and from the yard when necessary.

2.2.8 ROM Cost Estimate

The current ROM cost for Alternative 1B is approximately \$200M inclusive of bus shuttling, all project soft cost, contingencies, and other direct and indirect costs.

2.3 Alternative 1C – LRT Above With Delayed Opening of CLAX Main Line

Alternative 1C proposes the same track, structure, roadway, and structural configurations and modifications as described above for Alternatives 1A and 1B. Alternative 1C also has the same drainage, right-of-way, and utility impacts as Alternative 1B. In Alternative 1C, the opening of the CLAX mainline would be delayed through the project limits to allow all construction to be completed with the railroad offline.

Figure 2-6. Alternative 1C – LRT Above Grade without Shoofly



Source: HDR

2.3.1 Stage Construction and Traffic Handling

Alternative 1C features the same construction activities and traffic handling as Alternative 1B.

2.3.2 LRT and Bus Operations during Construction

As the CLAX main line would not be operation, no bus shuttle is necessary between the Downtown Inglewood and Fairview Heights Stations. The proposed bus terminal at the Downtown Inglewood station would be available for bus service.

2.3.3 ROM Cost Estimate

The current ROM cost for Alternative 1C is approximately \$186M inclusive of all project soft cost, contingencies, and other direct and indirect costs.

2.4 Alternative 2 – LRT Below Grade

Alternative 2 would lower the existing CLAX LRT line using a combination of semi-depressed guideways (u-wall trench sections) and a cut-and-cover box section under the Centinela/Florence intersection which would remain at grade. The track replacement limits of Alternative 2 extend approximately 3,000' from just east of the Downtown Inglewood Station to just west of the Fairview Heights Station. Figure 2-7 below illustrates the Alternative 2 components. Similar to Alternative 1A, Alternative 2 would utilize shoofly tracks to maintain the CLAX line operation during construction. See Figure 2-2 for the shoofly tracks layout and the temporary bus shuttling routes.

Figure 2-7. Alternative 2 – LRT Below Grade



Source: HDR

2.4.1 Geometric Configuration

Roadway

The roadway modifications in Alternative 2 are limited to the Centinela/Florence intersection and the connection to the grade separation structure. Similar to Alternative 1 (1A, 1B, 1C), the traffic signal proposed as part of the previous CLAX design at La Colina Drive and Centinela Avenue would need to be removed and the intersection would operate under stop control. The sidewalk on the eastside of Centinela Avenue would extend south to the intersection of Florence Avenue and a new crossing would be introduced at the northeast and northwest corners of Florence Avenue and Centinela Avenue. The street profile of Centinela would be modified slightly associated with the grade crossing panel removal. The street profiles for Florence Avenue and La Colina Drive remain unchanged (see Attachment A2).

LRT Alignment

For Alternative 2 the track would be lowered approximately 24'-29' below existing top-of-rail through Centinela Avenue with a maximum depth of approximately 32' east of the crossing. No changes would be made to the existing CLAX horizontal alignment.

Initially, two vertical alignments were studied for Alternative 2. Both vertical alignments maintain a minimum of 15' of vertical clearance in the cut-and-cover box section under Centinela Avenue and 16' of vertical clearance below struts in the u-wall trench sections.

The first vertical alignment option involved the relocation of a 39" CITY storm drain line approximately 10' below Centinela Avenue and a 60" LADWP water line approximately 7' below existing ground east of the crossing. This option was removed from consideration due to the substantial constructability challenge that would require closures of Florence Avenue.

The second vertical alignment option proposes to raise the 39" SD and 60" water lines to the extent possible to minimize the LRT lowering and excavation. The 39" SD would include a protection channel integral to the cut-and-cover box roof under Centinela Avenue and the 60" water line would pass through the U-wall trench section either concrete encased or with a utility bridge.

Maintaining the existing CLAX horizontal alignment, coupled with the proposed vertical alignment, would allow for operating speeds of 45 MPH adjacent to the Downtown Inglewood Station and 65 MPH going east to the Fairview Heights Station. See Attachment A2 for the proposed Alternative 2 LRT plan and profile.

During construction, a temporary shoofly track would be constructed in the westbound lanes of Florence Avenue to allow LRT passenger operations to continue at the same operating speeds as Alternative 1 (1A, 1B, 1C). See Section 2.3.7 for additional discussion on LRT operations during construction. Key geometric characteristics of Alternative 2 are summarized in Table 2-2 below.

Table 2-2. Alternative 2 Key LRT Geometric Features

Condition	Horizontal Alignment	Max Grade	Vertical Clearance	Operating Speeds
Temporary	Shoofly in WB Florence Ave	TOR profile to match existing Florence Avenue roadway profile	Shoofly is at-grade	35 MPH at Downtown Inglewood Station, 50 MPH east to Fairview Heights Station
Permanent	No change to CLAX alignment	5%	<ul style="list-style-type: none"> • 15' min. – Cut-and Cover Tunnel • 16' min. – U-Wall Strut 	45 MPH at Downtown Inglewood Station, 65 MPH east to Fairview Heights Station

Source: HDR

2.4.2 Right-of-Way Requirements and Impacts

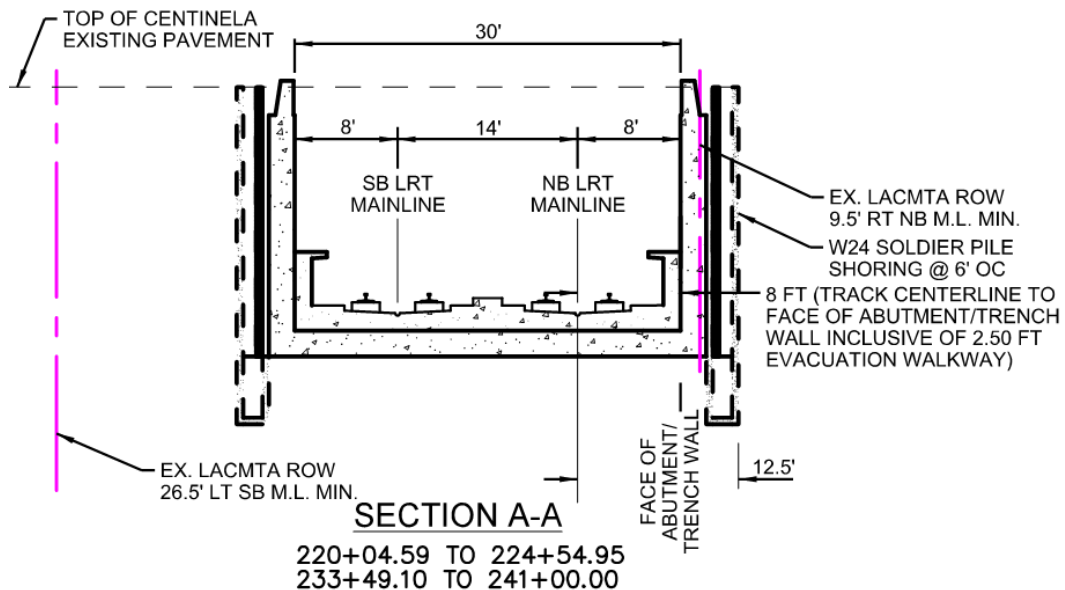
No permanent right-of-way impacts are anticipated at this time.

2.4.3 Structure Configuration

Structurally Alternative 2 consists of U-section walls with and without struts and a single span cut-and-cover reinforced concrete box structure under Centinela Avenue.

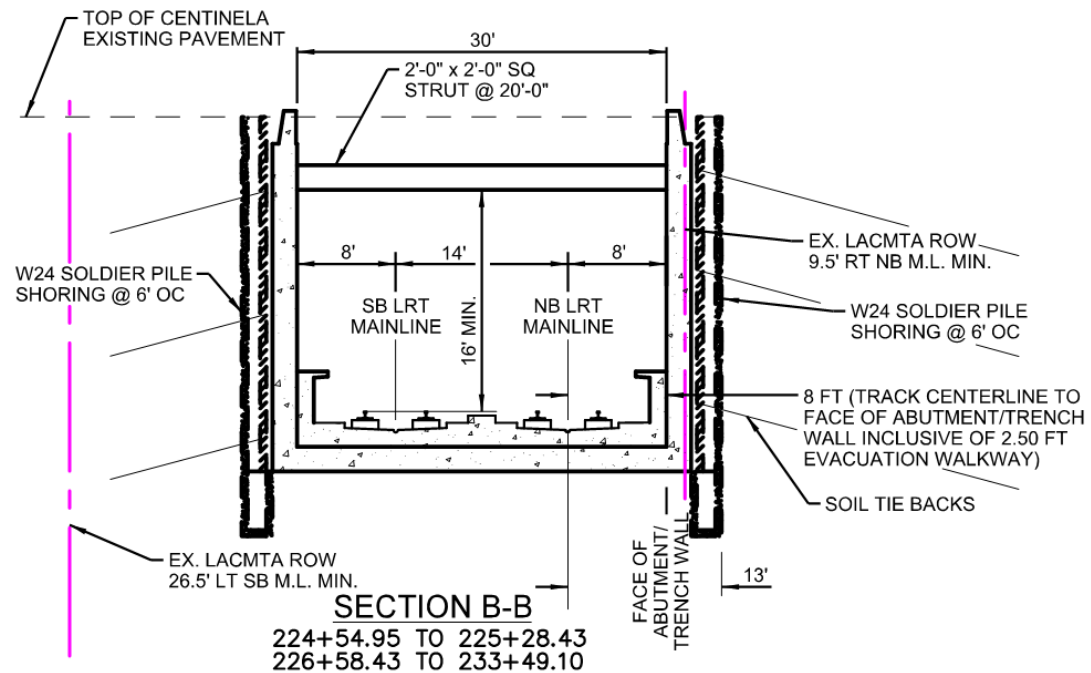
The width of the U-section is 30' between the faces of walls, the length is approximately 540' west of Centinela and 1,440' east of Centinela, and the maximum design height is 32' where the alignment travels below the raised 60" water line. Standard U-section walls are proposed for depths up to 20' below existing top of rail and strutted U-section walls are proposed when the depth is between 20' and 32'. The standard U-Section walls are proposed to be constructed using soldier piles for shoring that would potentially require tie-backs when excavation exceeds 20 feet. See Figures 2-8 and 2-9 below.

Figure 2-8. Alternative 2 – Standard U-Section



Source: HDR

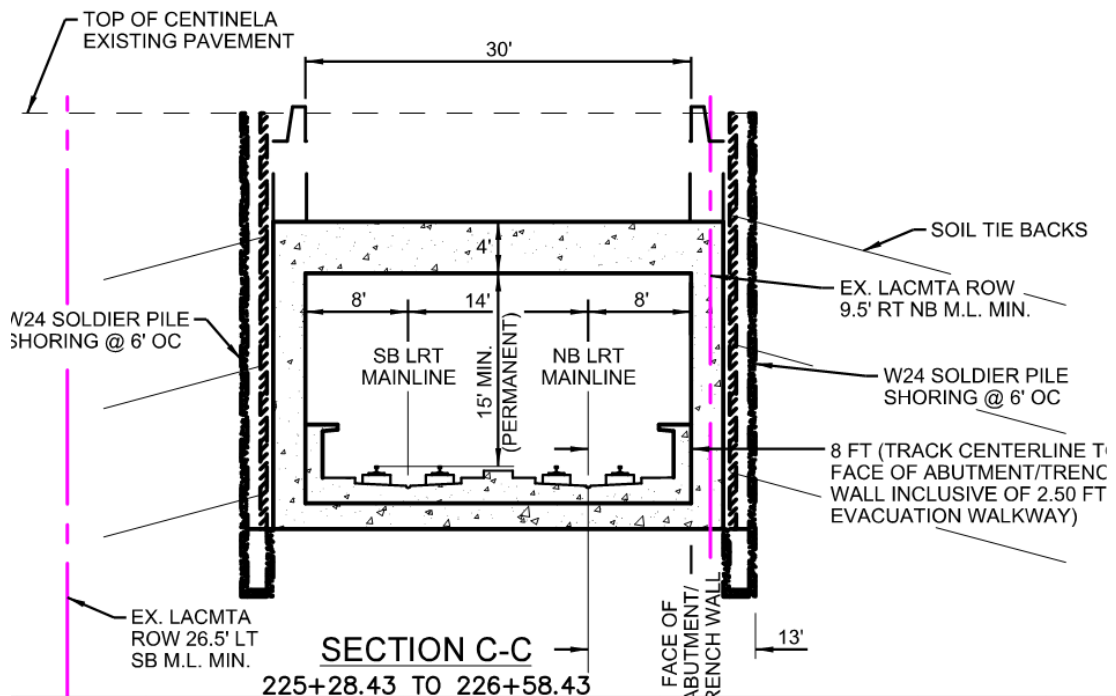
Figure 2-9. Alternative 2 – U-Section with Struts



Source: HDR

The cut-and-cover box under Centinela Avenue has a span of 30' between inside faces of the box, a height of 20'-8" from bottom of invert slab to top of roof slab and 3' minimum soil cover below existing ground. The total box length is 150 feet. See Figure 2-10 below

Figure 2-10. Alternative 2 – Cut-and-Cover Box below Centinela Avenue



Source: HDR

2.4.4 Drainage Impacts

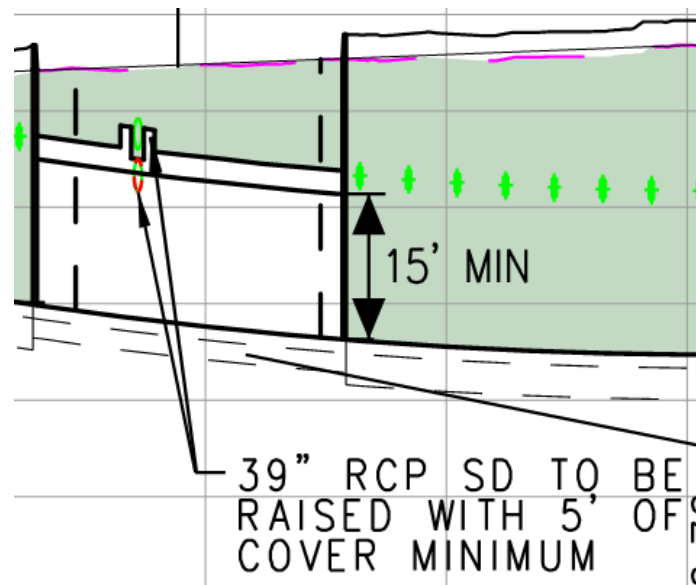
The proposed track profile for Alternative 2 would require the existing 39-inch CITY Storm Drain (ID # 1257) to be raised approximately 4'-4" at its current location and require a support structure to be built integral to the cut-and-cover box roof slab. The drainage implications are noted below and depicted in Figures 2-11 and 2-12:

Raise 39-inch CITY Storm Drain and 60-inch LADWP Water:

- Track alignment would be lowered to accommodate 16' minimum vertical clearance below utilities and/or their protection structures as noted above
- Proposed track drainage would flow towards Centinela Avenue (following existing flow pattern)
- A pump station proposed within existing Metro right-of-way at the northeast quadrant of the Florence Avenue and Centinela Avenue crossing would be required for the track drainage and would need to be pumped to the existing 39-inch CITY Storm Drain near La Colina Drive.

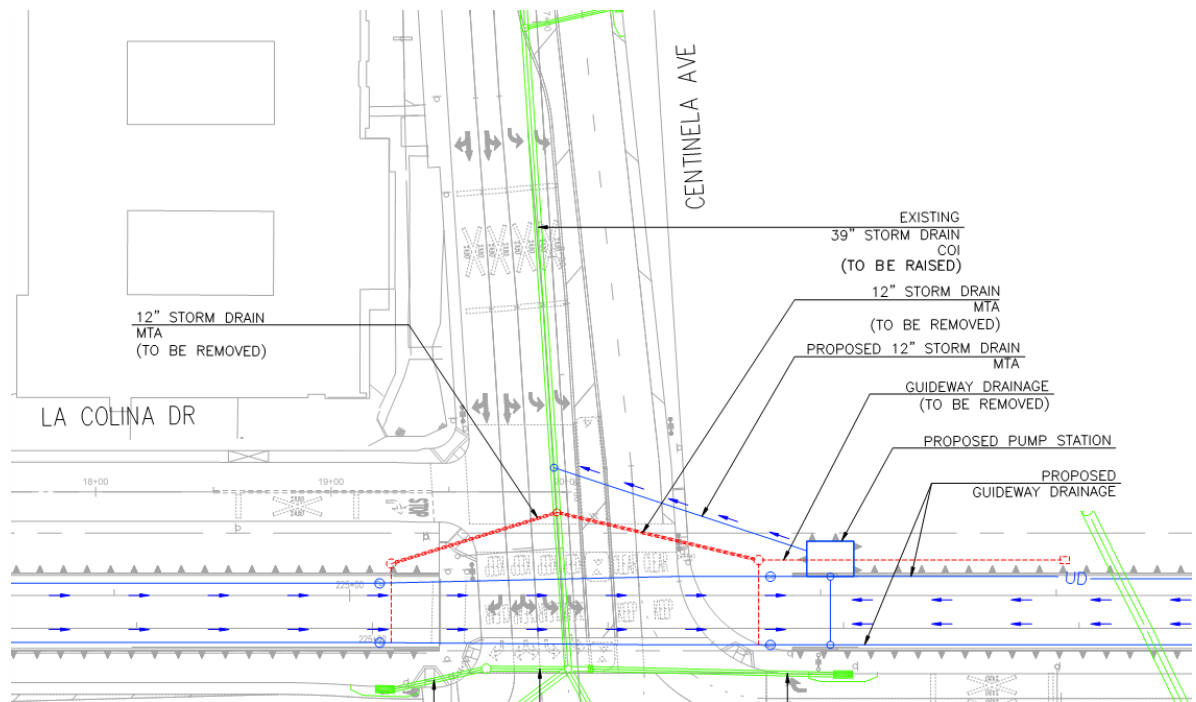
While the existing pipe profile allows raising the pipe, a hydraulic analysis would be required to assess the full extent of drainage modifications associate with raising the storm drain.

Figure 2-11. Alternative 2 – Raised 39" SD Line under Centinela Avenue



Source: HDR

Figure 2-12. Alternative 2 – Proposed Pump Station Location and Additional Key Drainage Modifications



Source: V&A

2.4.5 Utility Impacts

As discussed in Section 2.1.5, an existing 60" ductile iron water line owned by LADWP Water possess the most significant utility impact to Alternative 2. The water line's location and depth result in a significant impact with the line being in direct conflict with any efforts to lower the existing CLAX alignment below the existing Centinela Avenue roadway profile. Numerous additional minor relocations would be required to accommodate any potential track lowering concept.

Two potential approaches to resolve the water line impact have been studied at a high-level. Key considerations of each approach are outline below.

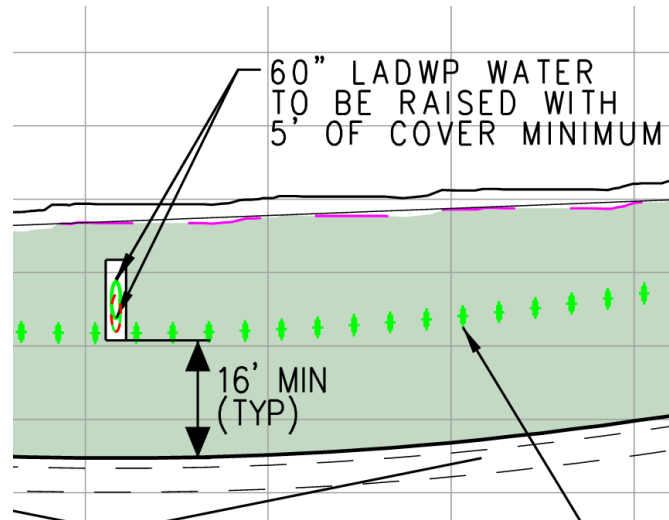
1. Raising the 60" water line in place – Recommended Approach.

Raising the line would require consideration of the following:

- a. Steeper track profile grade (5% maximum) with deeper excavation to achieve minimum vertical clearance below the raised water line
- b. 3'-0" deep utility protection girder penetrating LRT U-Section walls supporting the line above (see Figure 2-13 below)
- c. Potential concerns related to protecting the line include:
 - i. Utility protection girder would be penetrating the U-Section at the point of the deepest U-Section and could result in the need to provide additional wall thickness, which could encroach into the Florence Avenue street right of way

on the south side. Detailed analysis would be performed to determine the wall thickness if Alternative 2 is selected for final design.

Figure 2-13. Alternative 2 – 60” LADWP Water Integral Roof Protection Slab



Source: HDR

2. Relocate the 60" water line.

Two initial options have been identified to potentially relocate the line:

- a. Lower the line below the track profile
 - i. Significant feasibility, constructability, and cost concerns as 15'-20' of lowering would be required assuming a 4' roadway bridge depth and a minimum of 5' of cover from the bottom of invert slab to top of water line
- b. Realign the water line east to cross under the tracks closer to Osage Avenue or North Prairie Avenue
 - i. Requires substantial trenching to reroute the 60" water line causing prolonged impacts to traffic on Florence and North Prairie Avenues

As with Alternative 1A, in locations where the proposed temporary shoofly track crosses an existing utility, the utility must be protected in place by concrete encasement or steel casing.

2.4.6 Stage Construction and Traffic Handling

Alternative 2 is proposed to be constructed with shoofly tracks. The shoofly tracks and temporary traffic configuration on Florence Avenue is the same as described in Alternative 1A.

The proposed construction sequence of Alternative 2 is as follows:

- 1. Construct shoofly tracks and temporary grade crossing. Through traffic on Florence reduced to two lanes in each direction, the EB left turn lane at Centinela reduced to one lane.

2. Track cutover to the shoofly. CLAX line would operate on the shoofly tracks after testing. Demolish the existing tracks. Construct the proposed U-section walls.
3. Construct CIDH piles of the cut-and-cover box section on Centinela Ave in three phases, with reduced lanes on Centinela.
4. Under temporary closure of Centinela Ave, install temporary decking.
5. Construct the remainder of the box structure, tracks, OCS and other system components.
6. Track cutover to proposed track. Conduct testing. Demolish the shoofly tracks, temporary crossing. Restore street and sidewalk.

The construction duration of Alternative 2 is estimated at 36 months.

See Attachment D4 for preliminary Alternative 2 Stage Construction and Traffic Handling.

2.4.7 LRT and Bus Operation during Construction

The LRT shoofly, bus operation, and bus shuttling are the same as describe in Alternative 1.

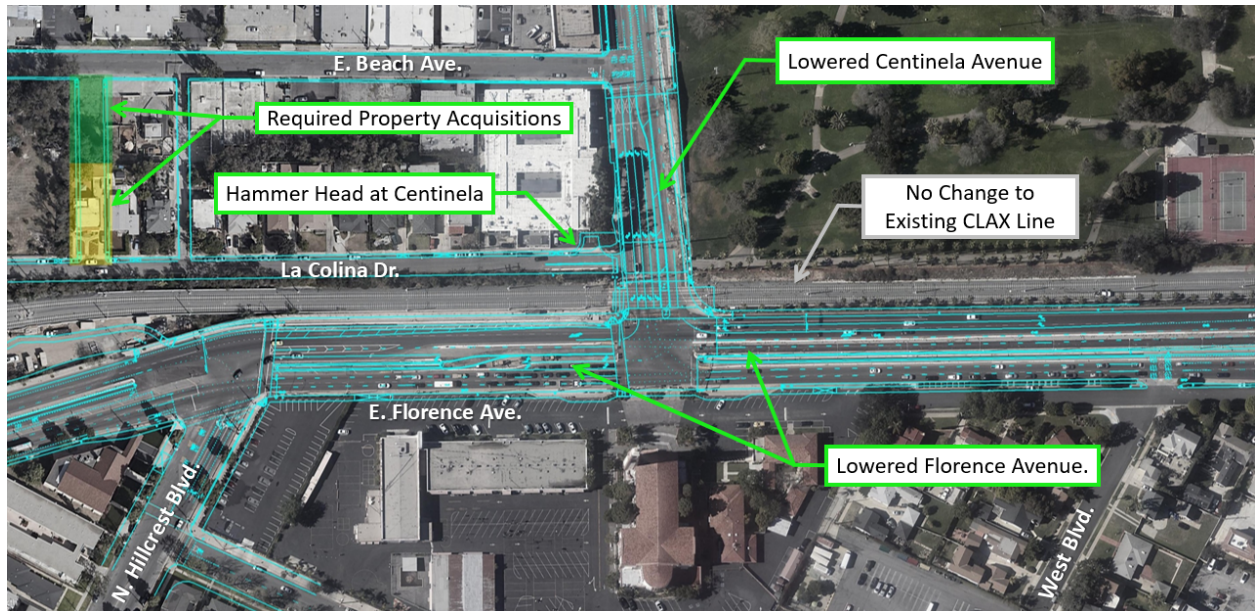
2.4.8 ROM Cost Estimate

The current ROM cost for Alternative 2 is approximately \$321M inclusive of a temporary track-shoofly and bus shuttling, pump station, and all project soft cost, contingencies, and other direct and indirect costs.

2.5 Alternative 3 – LRT At-Grade

Alternative 3 proposes to maintain the CLAX alignment and realign Centinela Avenue and Florence Avenue. Based on the existing terrain and Centinela Avenue's steep profile grade, the grade separation would be achieved by lowering Centinela and Florence.

Figure 2-14. Alternative 3 – LRT At-Grade



Source: HDR

2.5.1 Geometric Configuration

Roadway

Alternative 3 proposes significant impacts to Florence Avenue, Centinela Avenue and La Colina Drive. The alternative proposes to keep the existing track elevations unchanged and proposes to depress Florence Avenue and Centinela Avenue by up to 24 feet. To avoid acquiring up to 5 properties on La Colina Drive to maintain connection to Centinela Avenue, La Colina Drive would remain at existing grade and terminate with a hammer head just west of the existing intersection. A replacement access to La Colina Drive is proposed through a new 34' wide local street between Beach Avenue and La Colina Drive. The proposed length of the new street is about 275 feet long. The lane configuration on Florence Avenue and Centinela Avenue would remain unchanged.

The existing posted speed limit on Florence Avenue is 40 mph and the design speed used for proposed design is 45mph. The revised profile extends from Hillcrest Boulevard to Osage Avenue. The proposed profile on Florence Avenue east of Centinela Avenue is up to 6% grade. A separate sidewalk profile is proposed at 5% with an intermediate landing for accessibility. A short retaining wall would separate the sidewalk from the roadway.

The existing posted speed limit on Centinela Avenue is 20 mph and the design speed for the proposed modifications is 45 mph per City of Inglewood's speed survey. The profile change extends from south of Beach Avenue to Florence Avenue.

Pedestrian access would be maintained with sidewalks on Centinela and Florence.

LRT Alignment

Alternative 3 proposes to leave the existing CLAX LRT line at-grade and grade separate Centinela Avenue below the existing LRT line. No changes are proposed to the existing CLAX horizontal or vertical alignment.

2.5.2 Right-of-Way Requirements and Impacts

In order to maintain access to the properties along La Colina Drive, a new street was proposed. As a result of this new street, 2 properties would need to be purchased: 1 single family residential at 367 La Colina Drive would require a full acquisition and partial acquisition would be required for a portion of the vacant lot located directly north of the full property acquisition at 358 E Beach Avenue. The new local street is a 34' wide street that follows City of Inglewood Local Street width criteria and is about 275' long between Beach Avenue and La Colina Drive. The alignment of proposed new street is proposed at about 750' west of Centinela Avenue.

With Florence Avenue lowered substantially, the two existing driveways at the St. John Church and school would be closed. Access to the property would be at the existing driveways on Grace Avenue.

2.5.3 Structure Configuration

The proposed structure is a single-span cast-in-place prestressed concrete box girder bridge supported on seat type abutments on secant pile foundations. The overall structure width is 30 feet, and total structure length is 150 feet. The proposed structure depth is 7 feet, 6 inches.

Due to Right-of-way restrictions, a top-down construction method is proposed to construct the bridge abutments and retaining walls. The 5-foot diameter cast-in-drilled-hole (CIDH) piles at 6 feet spacing with 2-foot diameter secant piles would be proposed for the abutment and retaining walls.

2.5.4 Drainage Impacts

Alternative 3 proposes the most significant impacts to the existing drainage network due to the lowering of Florence Avenue and Centinela Avenue. This roadway depression would require the relocation of all existing storm drains. In addition, a pump station would be required for the depressed area created by the grade separation.

Drainage impacts for Alternative 3:

- A storm water pump station would be required for the depressed Florence/Centinela intersection and the track drainage.
- Six existing catch basins would be impacted and reconstructed
- One existing catch basin would be removed
- One new additional catch basin would be required along the south side of Florence Avenue
- Approximately 2300 LF of various size storm drain pipe would be replaced.

2.5.5 Utility Impacts

Alternative 3 requires the most extensive utility relocation/replacement. In this alternative, all existing utilities within the roadway lowering limits would be impacted requiring a complete removal and relocation of all impacted utilities.

2.5.6 Stage Construction and Traffic Handling

With Florence and Centinela Avenues depressed in this alternative, it is infeasible to provide shoofly tracks to maintain the CLAX line's operation. Pedestrian and bicyclists would not have access to the Centinela/Florence intersection and would be detoured around the construction site.

To minimize the CLAX line outage and impact to Florence Avenue traffic, the proposed construction sequence of Alternative 3 is as follows:

1. Construct the new street connecting Beach Avenue and La Colina Drive and subsequently construct the hammerhead at the east end of La Colina.
2. Under long term closure of Centinela Avenue, construct the secant pile walls on Centinela Avenue and the north side of Florence Avenue while maintaining the CLAX line operation to the extent possible. Traffic would be detoured.
3. Under long term closure of Florence Avenue and the CLAX line, construct the remaining retaining walls and bridge structure, drainage and utility relocations, and all roadway modifications. Traffic would be detoured.
4. Construct restoration track work and systems. Conduct revenue testing.

The construction duration of Alternative 3 is estimated at 36 months.

See Attachment D5 for preliminary Alternative 3 Stage Construction and Traffic Handling.

2.5.7 LRT and Bus Operation during Construction

The proposed roadway modifications to lower portions of Centinela/Florence below the LRT line would be constructed under live track conditions for as long as possible until track outage is required. Bus shuttling would be provided when the CLAX line is out of service. The bus lines operating on Florence Avenue would be detoured. The bus terminal at the Downtown Inglewood station would remain in service.

2.5.8 ROM Cost Estimate

The current ROM cost for Alternative 3 is approximately \$218M inclusive of bus shuttling, right-of-way acquisitions, pump station, and all project soft cost, contingencies, and other direct and indirect costs.

3 Screening Matrix

Each alternative studied in this screening analysis has different design, operation characteristics, impacts, and cost. A screening matrix was compiled to rank the alternatives based on the following evaluation categories:

- CLAX Line Design and Operation
- Street Design and Operation
- Public Utilities and Drainage Impacts
- Community and Right of Way Impacts
- Construction Impacts
- Cost

In Table 3-1 below, each evaluation criteria was individually ranked, and summarized as an average ranking for each evaluation category. The highest performing alternative for each category is assigned with ranking score of 1. The cumulative ranking score is the sum of the six evaluation category rankings. The best performing alternative would have the lowest cumulative ranking score.

Table 3-1. Centinela/Florence Grade Separation Alternatives Screening Analysis Matrix

Rankings Value: The highest performing alternative would be assigned with a ranking value of 1

Evaluation Criteria		Alternative 1A LRT Above Grade, Bridge Overcrossing	Alternative 1B LRT Above Grade, Bus Shuttling	Alternative 1C LRT Above Grade, No Bus Shuttling	Alternative 2 LRT Below Grade, Trench	Alternative 3 LRT At Grade, Centinela and Florence Lowered
CLAX Line Design and Operation	Average Ranking	1.3	1.3	1.3	1.7	1
Headway, travel time	Ranking	1	1	1	1	1
	Findings	Insignificant change to travel time, does not affect headways.	Insignificant change to travel time, does not affect headways.	Insignificant change to travel time, does not affect headways.	Insignificant change to travel time, does not affect headways.	No change
CLAX Line Maintenance	Ranking	1	1	1	1	1
	Findings	The proposed grade separation would be maintained in the same manner as the La Brea aerial structure. Hi-rail access from adjacent grade crossings.	The proposed grade separation would be maintained in the same manner as the La Brea aerial structure. Hi-rail access from adjacent grade crossings.	The proposed grade separation would be maintained in the same manner as the La Brea aerial structure. Hi-rail access from adjacent grade crossings.	The proposed grade separation would be maintained in the same manner as the other trench segments on the CLAX line. Hi-rail access from adjacent grade crossings.	The proposed grade separation would be maintained in the same manner as the La Brea aerial structure (tracks on bridge structure with roadway below). Hi-rail access from adjacent grade crossings.
Track Geometry	Ranking	2	2	2	3	1
	Findings	3.5% max grade	3.5% max grade	3.5% max grade	5.0% max grade	No change
Street Design and Operation	Average Ranking	2	2	2	1	3
Vehicle Traffic Operation, Circulation	Ranking	2	2	2	1	3
	Findings	Retaining walls and bridge abutment limit visibility, maintain lane configuration and circulation	Retaining walls and bridge abutment limit visibility, maintain lane configuration and circulation	Retaining walls and bridge abutment limit visibility, maintain lane configuration and circulation	No change in visibility, maintain lane configuration and circulation	Reduced visibility due to retaining walls. Steep grades toward intersection. La Colina cut off at Centinela, access from Beach and new connecting local road
Pedestrian Circulation, Safety	Ranking	2	2	2	1	3
	Findings	Retaining walls and bridge abutment limit visibility, maintain circulation	Retaining walls and bridge abutment limit visibility, maintain circulation	Retaining walls and bridge abutment limit visibility, maintain circulation	No change in visibility, maintain circulation	La Colina cut off at Centinela, access from Beach and new connecting local road. Long sustained grades, not as pedestrian friendly. Sense of being hidden, need extra lighting.

Evaluation Criteria		Alternative 1A LRT Above Grade, Bridge Overcrossing	Alternative 1B LRT Above Grade, Bus Shuttling	Alternative 1C LRT Above Grade, No Bus Shuttling	Alternative 2 LRT Below Grade, Trench	Alternative 3 LRT At Grade, Centinela and Florence Lowered
Public Utilities and Drainage Impacts	Average Ranking	2	1	1	3.5	3.5
Utilities	Ranking	2	1	1	3	4
	Findings	Temporary protection of utilities under shoofly tracks. No permanent relocations.	No permanent relocations.	No permanent relocations.	Temporary protection of utilities under shoofly tracks. Temporary protection/relocation of utilities on Centinela, permanent restoration on top of the roof slab. 66" DWP water line to be relocated.	All utilities on Centinela and Florence to be relocated, including the 66" DWP water line.
Drainage	Ranking	2	1	1	4	3
	Findings	Minor modifications for the reconfigured track drainage. New inlets and laterals. Temporary drainage system needed at the intersection for shoofly condition.	Minor modifications for the reconfigured track drainage. New inlets and laterals	Minor modifications for the reconfigured track drainage. New inlets and laterals	Track drainage requires new pump station. Existing 39" SD on Centinela to be replaced. Temporary drainage system needed at the intersection for shoofly.	Replace all inlets and pipes on Florence and Centinela.
Community and Right of Way Impacts	Average Ranking	1.3	1.3	1.3	1.0	2.3
Access Impacts	Ranking	1	1	1	1	2
	Findings	No change	No change	No change	No change	La Colina cut off at Centinela, access from Beach and new connecting local road. Church access on Florence removed; access from Grace Ave only.
Right of Way Impacts	Ranking	1	1	1	1	2
	Findings	Construction staging and laydown areas need to be identified	Construction staging and laydown areas need to be identified	Construction staging and laydown areas need to be identified	Construction staging and laydown areas need to be identified	One residential full take, one residential partial take. TCE and footing easement along Florence and Centinela. Construction staging and laydown areas need to be identified
Visual Impacts	Ranking	2	2	2	1	3
	Findings	Retaining walls limit visibility, particularly residents on La Colina	Retaining walls limit visibility, particularly residents on La Colina	Retaining walls limit visibility, particularly residents on La Colina	Improved with LRT lowered	Substantial retaining walls on both sides of Centinela and Florence.

Evaluation Criteria		Alternative 1A LRT Above Grade, Bridge Overcrossing	Alternative 1B LRT Above Grade, Bus Shuttling	Alternative 1C LRT Above Grade, No Bus Shuttling	Alternative 2 LRT Below Grade, Trench	Alternative 3 LRT At Grade, Centinela and Florence Lowered
Construction Impacts	Average Ranking	1.8	1.4	1	2.2	2.8
Construction Duration	Ranking	2	1	1	4	3
	Findings	29 months	23 months	23 months	40 months	36 months
Construction Impacts	Ranking	2	1	1	2	3
	Findings	Reduced lane configuration for duration of construction. Intermittent full closure of Centinela Ave between La Colina Dr. and Florence Ave.	Minimal impact; street traffic not affected.	Minimal impact; street traffic not affected.	Reduced lane configuration for duration of construction. Intermittent full closure of Centinela Ave between La Colina Dr. and Florence Ave.	Long-term closure of Centinela and Florence requires detour.
Bus Services	Ranking	2	1	1	2	3
	Findings	Downtown Inglewood Station terminal would be occupied by the shoofly tracks and unusable. Bus Service and Layover locations would need to be temporarily relocated.	Downtown Inglewood Station terminal would be in service.	Downtown Inglewood Station terminal would be in service.	Downtown Inglewood Station terminal would be occupied by the shoofly tracks and unusable. Bus Service and Layover locations would need to be temporarily relocated.	Bus service on Florence will be detoured during construction. Downtown Inglewood Station terminal would remain in service.
CLAX Line Maintenance	Ranking	2	3	1	2	4
	Findings	Shoofly provides continuous access except cutover periods. During cutover, rail cars servicing the north segment has no access to the yard, needs remote cleaning and inspections. Hi-rail vehicles need to access the track from adjacent crossings.	Rail cars servicing the north segment has no access to the yard, needs remote cleaning and inspections. Hi-rail vehicles need to access the track from adjacent crossings.	No maintenance needs as this segment is not in service.	Shoofly provides continuous access except cutover periods. During cutover, rail cars servicing the north segment has no access to the yard, needs remote cleaning and inspections. Hi-rail vehicles need to access the track from adjacent crossings.	Long term track outage during construction restricts access. Rail cars servicing the north segment has no access to the yard, needs remote cleaning and inspections. Hi-rail vehicles need to access the track from adjacent crossings.
Access to La Brea Station During Construction	Ranking	1	1	1	1	1
	Findings	Station parking to be out of service with shoofly. Access to station platform maintained.	No impact	No impact	Station parking to be out of service with shoofly. Access to station platform maintained.	No impact

Cost	Ranking	4	2	1	5	3
			\$241M	\$201M	\$185M	\$321M

Cumulative Ranking Score

12.5

9.1

7.7

14.4

15.6

4 Recommendation

Based on the screening matrix, it is apparent that the LRT above grade alternatives (1A, 1B and 1C) prevail by consistently ranking higher than Alternatives 2 and 3 among most evaluation categories, primarily due to lower cost and shorter construction duration.

Alternative 2 has the highest cost, but has relatively less impacts than Alternative 3. Alternative 3 brings the most significant impacts to the community. Among the above-grade alternatives, Alternative 1A carries the most schedule and cost impacts due to requiring shoo fly tracks during construction. Differentiating between Alternatives 1B and 1C is dependent on the CLAX operating condition at the time of construction.

It is recommended to advance the LRT above grade alternative to the preliminary engineering phase, while the selection among Alternatives 1A, 1B, and 1C is in progress concurrently.

5 Attachments

ATTACHMENT A – TRACK AND ROADWAY LAYOUTS AND PROFILES

A1T – ALTERNATIVE 1 (1A, 1B, 1C) TRACK PLAN AND PROFILE

A1R – ALTERNATIVE 1 (1A, 1B, 1C) ROADWAY LAYOUT AND PROFILES

A2T – ALTERNATIVE 2 TRACK PLAN AND PROFILE

A2R - ALTERNATIVE 2 ROADWAY LAYOUT AND PROFILES

A3R – ALTERNATIVE 3 ROADWAY LAYOUT AND PROFILES

ATTACHMENT B – DRAINAGE EXHIBITS

B1 – ALTERNATIVE 1 (1A, 1B, 1C)

B2 – ALTERNATIVE 2

B3 – ALTERNATIVE 3

ATTACHMENT C – UTILITY EXHIBITS

C1 – ALTERNATIVE 1 (1A, 1B, 1C)

C2 – ALTERNATIVE 2

C3 – ALTERNATIVE 3

ATTACHMENT D – STAGE CONSTRUCTION EXHIBITS

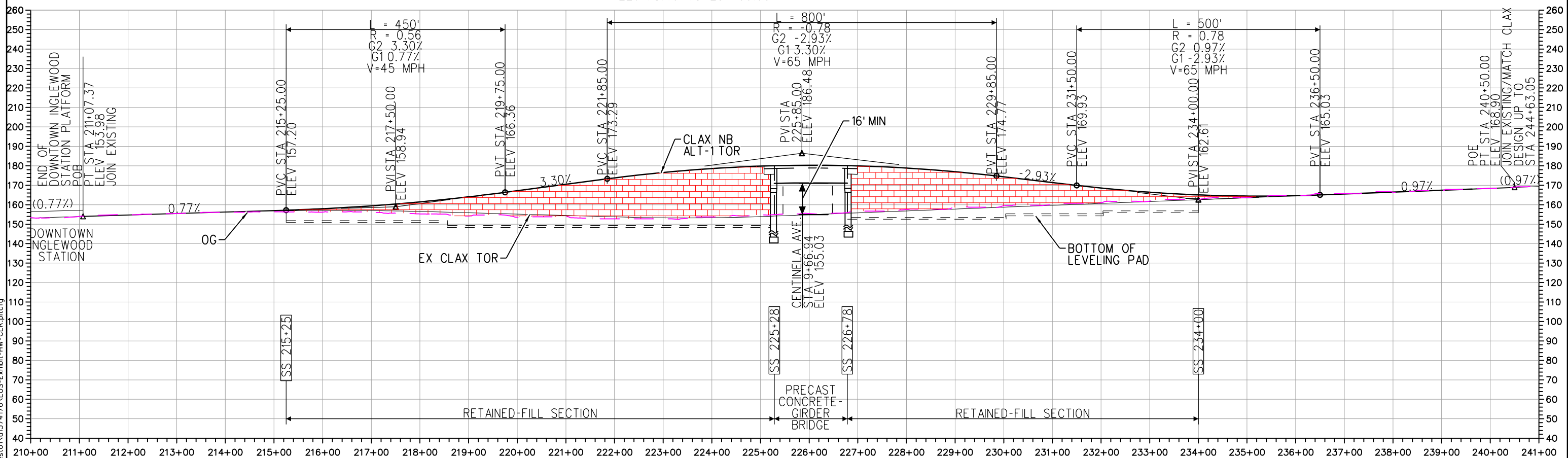
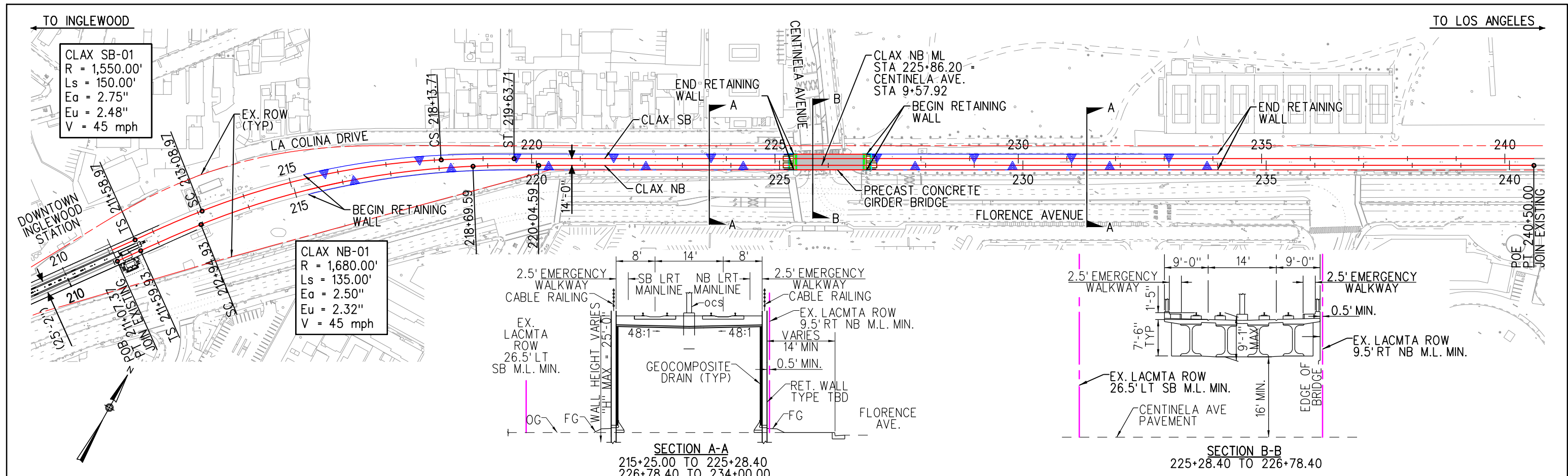
D1 – ALTERNATIVE 1A

D2 – ALTERNATIVE 1B

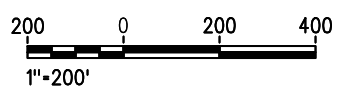
D3 – ALTERNATIVE 2

D4 – ALTERNATIVE 3

Attachment A – Track and Roadway Layouts and Profiles

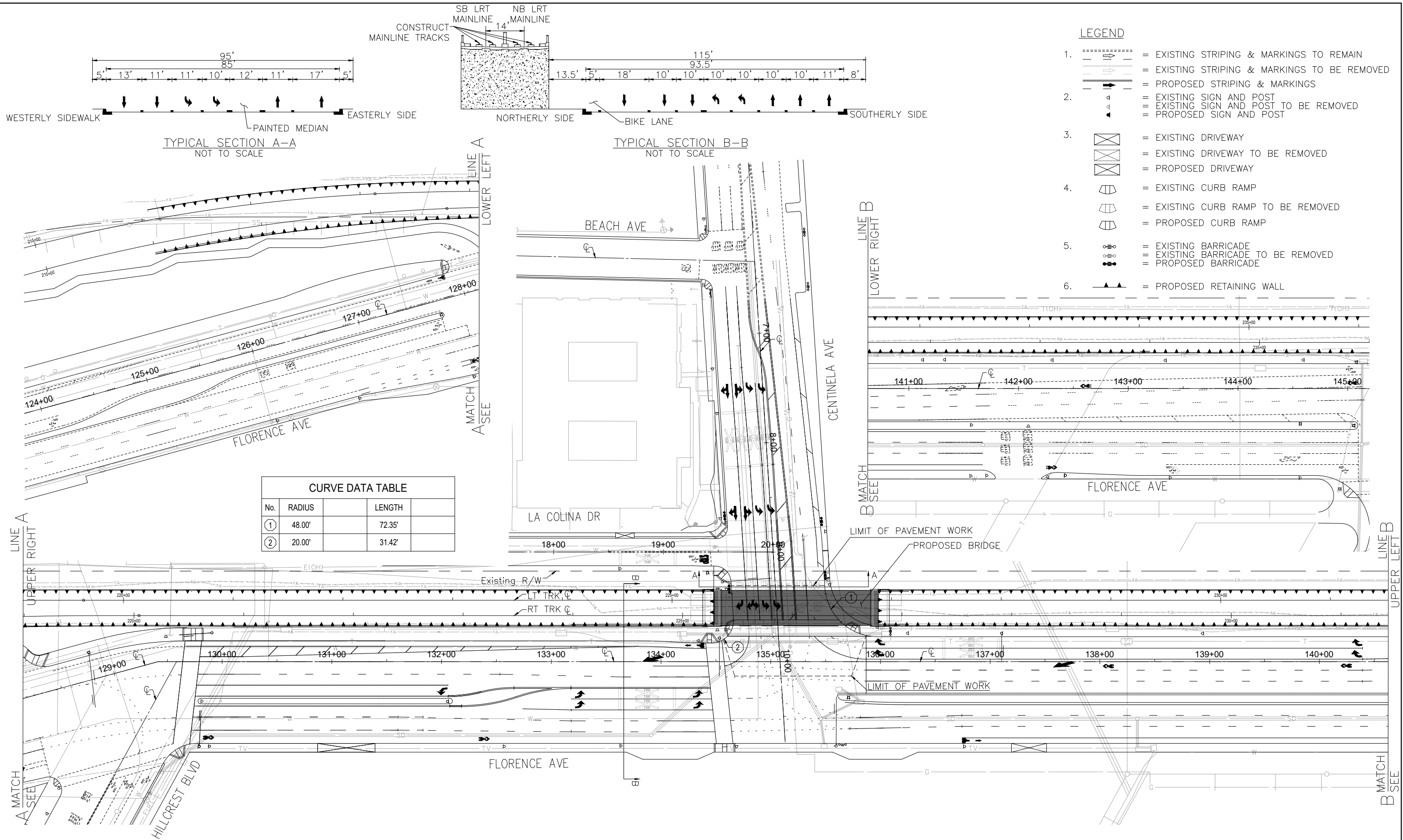


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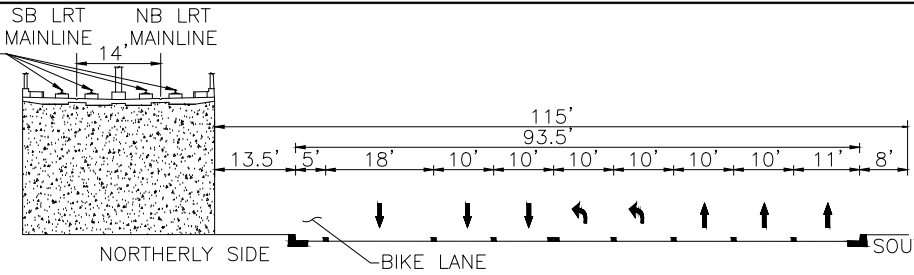
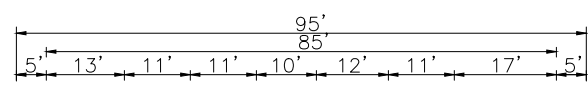


	CENTINELA GRADE SEPARATION		SCALE: 1"=200'
	TRACK PLAN AND PROFILE ALTERNATIVE 1		DATE: 05-15-2020

41R - ALTERNATIVE 1 (1A, 1B, 1C) ROADWAY LAYOUT



- LEGEND**
- 1. = EXISTING STRIPING & MARKINGS TO REMAIN
 - = EXISTING STRIPING & MARKINGS TO BE REMOVED
 - = PROPOSED STRIPING & MARKINGS
 - 2. = EXISTING SIGN AND POST
 - = EXISTING SIGN AND POST TO BE REMOVED
 - = PROPOSED SIGN AND POST
 - 3. = EXISTING DRIVEWAY
 - = EXISTING DRIVEWAY TO BE REMOVED
 - = PROPOSED DRIVEWAY
 - 4. = EXISTING CURB RAMP
 - = EXISTING CURB RAMP TO BE REMOVED
 - = PROPOSED CURB RAMP
 - 5. = EXISTING BARRICADE
 - = EXISTING BARRICADE TO BE REMOVED
 - = PROPOSED BARRICADE
 - 6. = PROPOSED RETAINING WALL

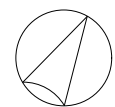


CURVE DATA TABLE

No.	RADIUS	LENGTH
①	48.00'	72.35'
②	20.00'	31.42'

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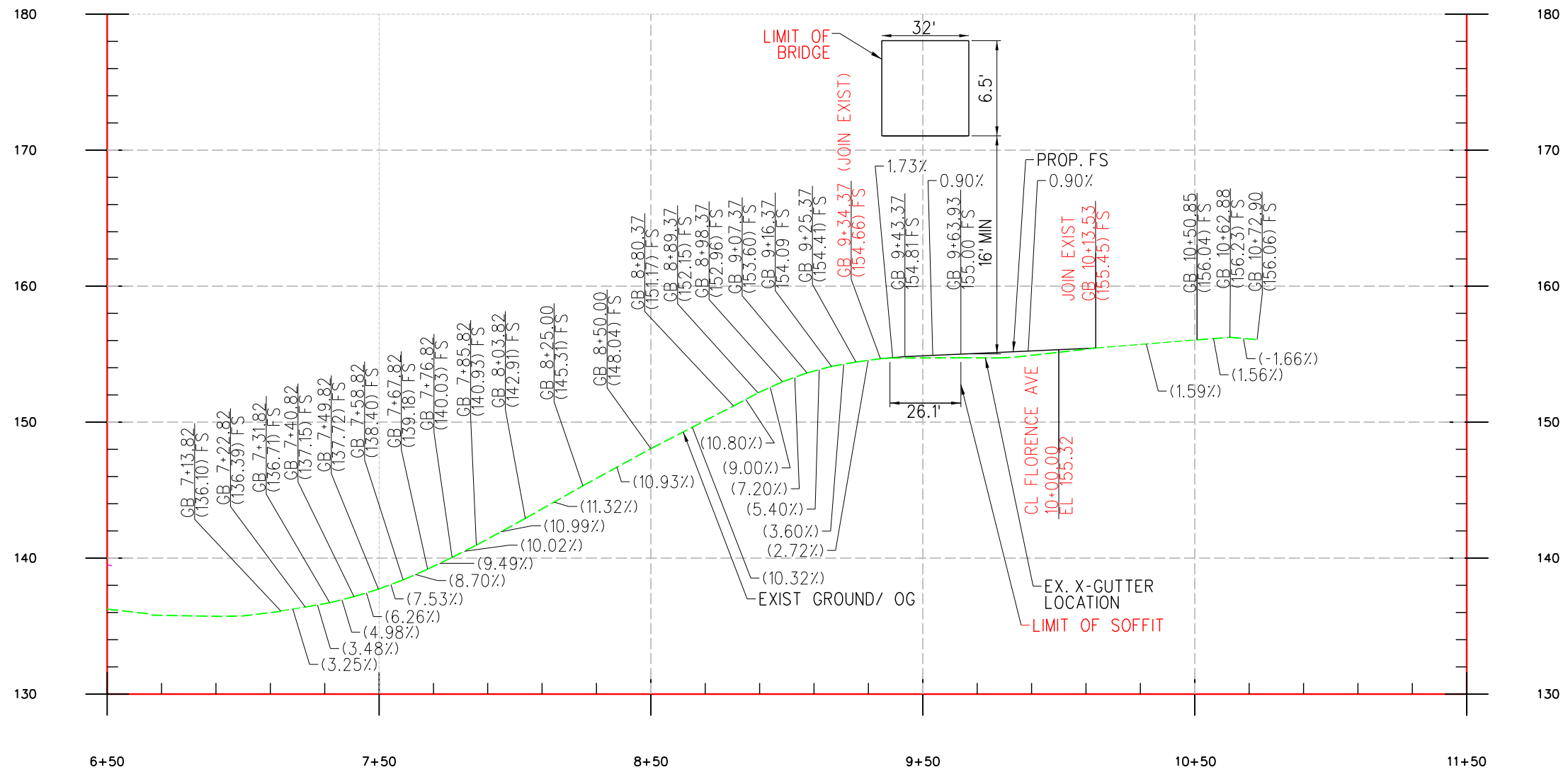


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CENTINELA GRADE SEPARATION
 ALTERNATIVE 1
 LAYOUT

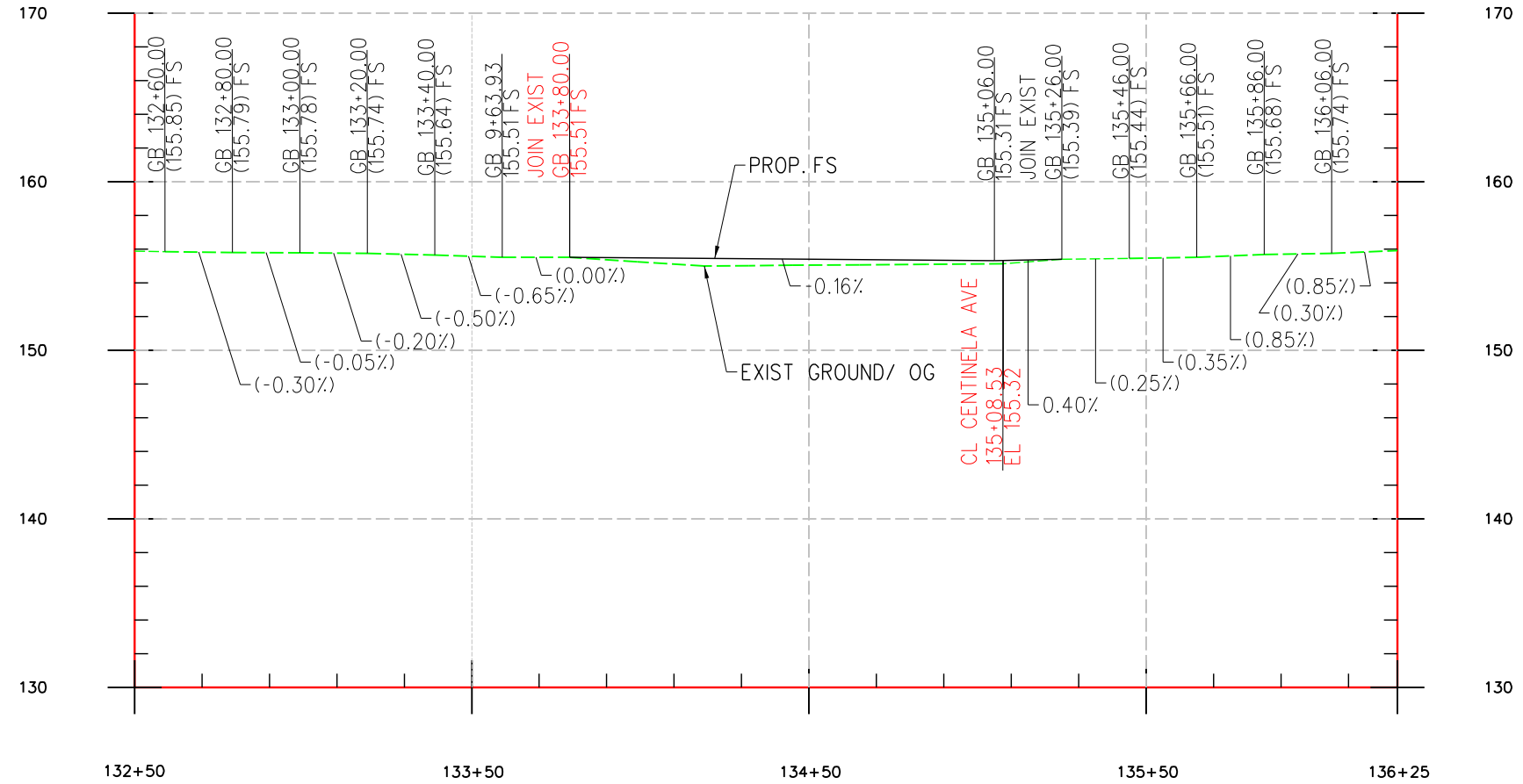
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CENTINELA AVENUE CL PROFILE

DATE: 05-13-2020
 SCALE: 1"=10'
 PROJECT: CENTINELA AVE. PROFILE
 SHEET: 101

<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			<p>CENTINELA GRADE SEPARATION ROADWAY GEOMETRY ALTERNATIVE 1</p>	<p>HORZ: 1"=50' VERT: 1"=10' DATE: 05-13-2020</p>
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FLORENCE AVENUE CL PROFILE

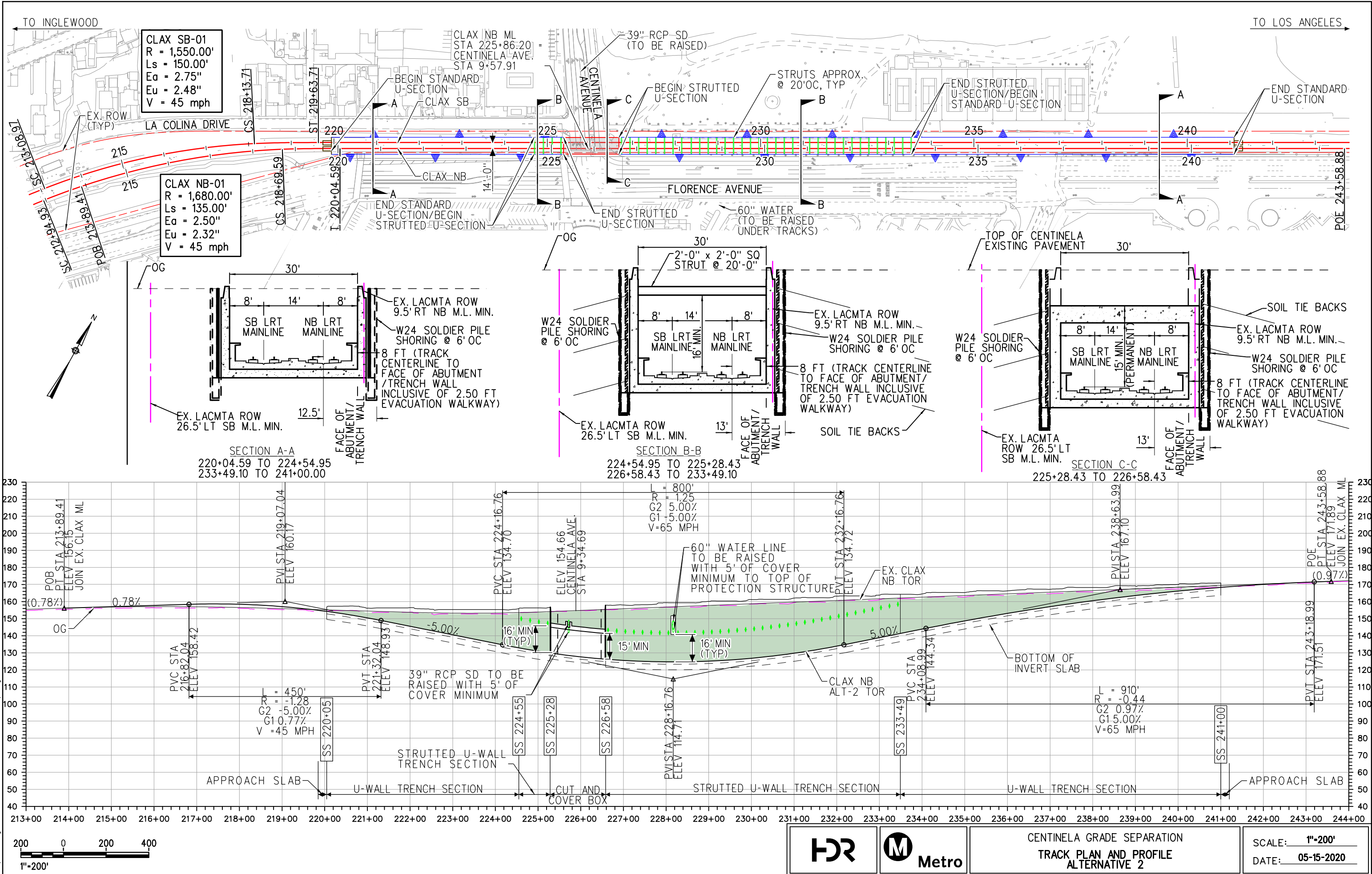
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 \$TOTAL\$



CENTINELA GRADE SEPARATION
 ROADWAY GEOMETRY
 ALTERNATIVE 1

HORZ: 1"=50'
 SCALE: VERT: 1"=10'
 DATE: 05-13-2020

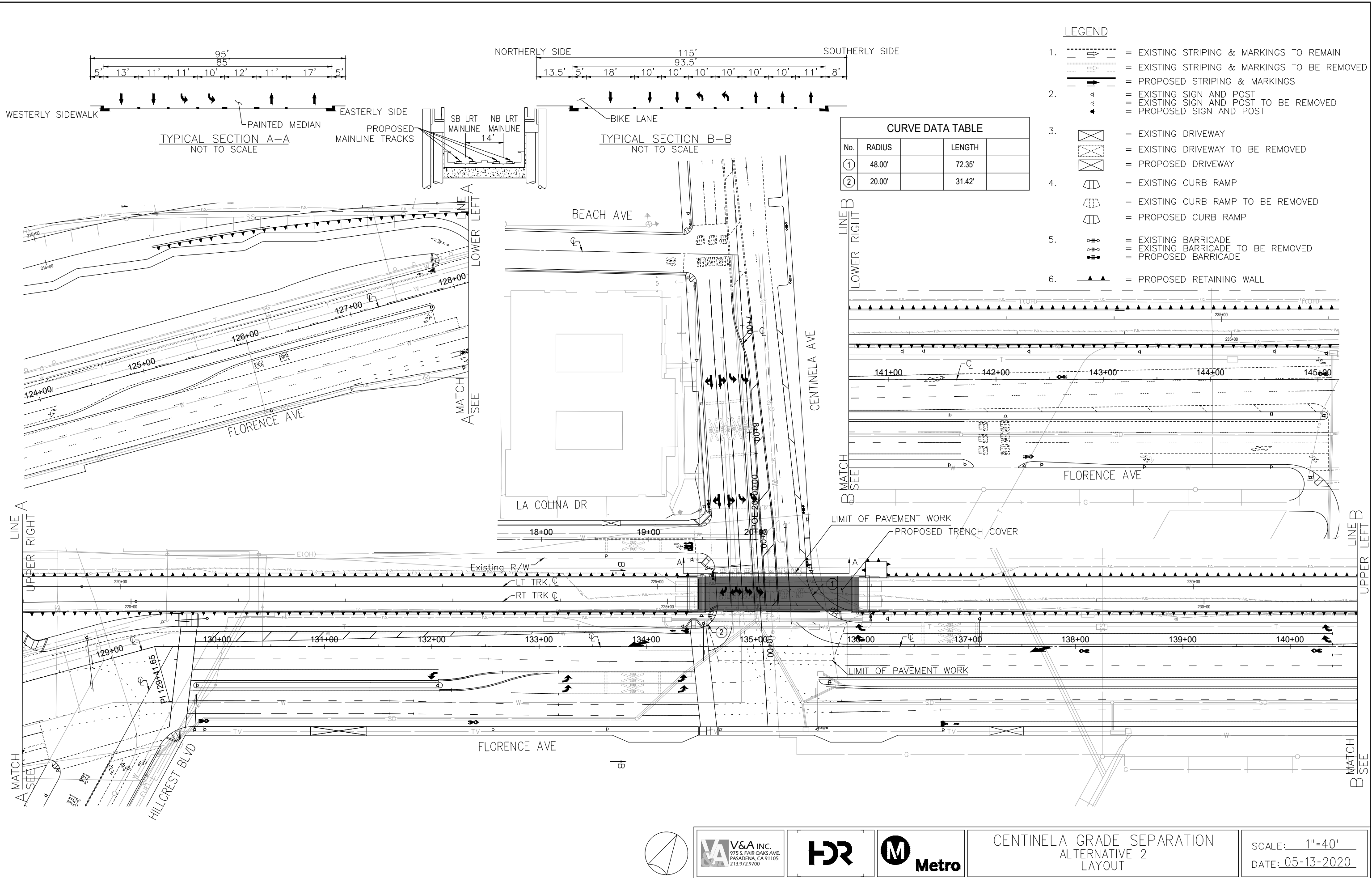
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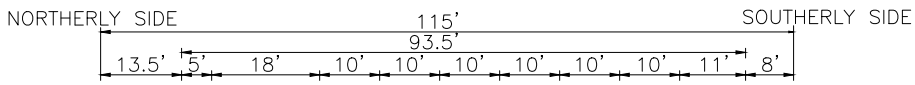
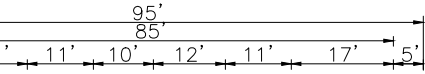
A2R - ALTERNATIVE 2 ROADWAY LAYOUT



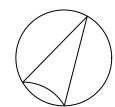
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 - 2. = EXISTING SIGN AND POST
 - = EXISTING SIGN AND POST TO BE REMOVED
 - = PROPOSED SIGN AND POST
 - 3. = EXISTING DRIVEWAY
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 - 4. = EXISTING CURB RAMP
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 - 5. = EXISTING BARRICADE
 - = EXISTING BARRICADE TO BE REMOVED
 - = PROPOSED BARRICADE
 - 6. = PROPOSED RETAINING WALL

CURVE DATA TABLE

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②	20.00'	31.42'



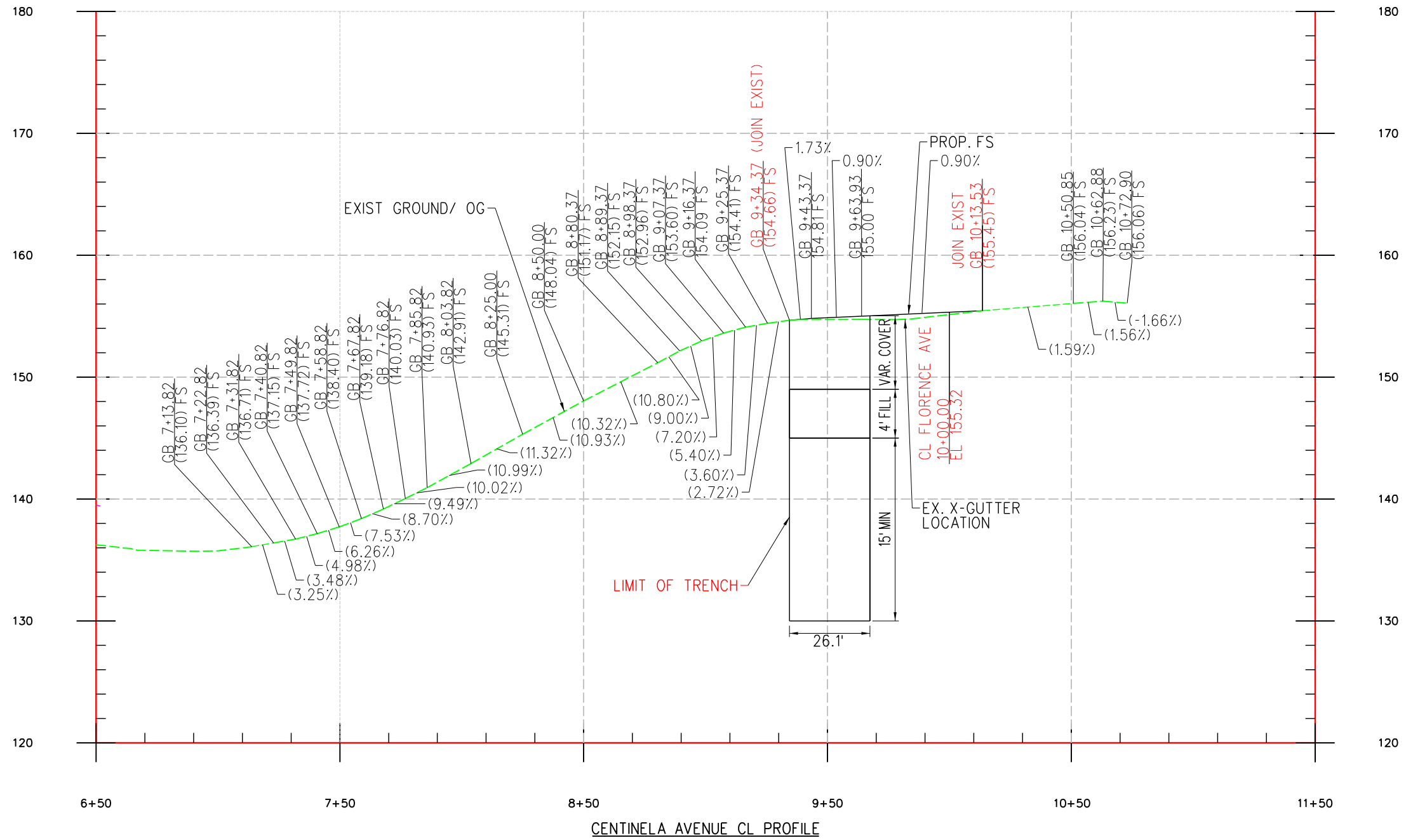
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CENTINELA GRADE SEPARATION
 ALTERNATIVE 2
 LAYOUT

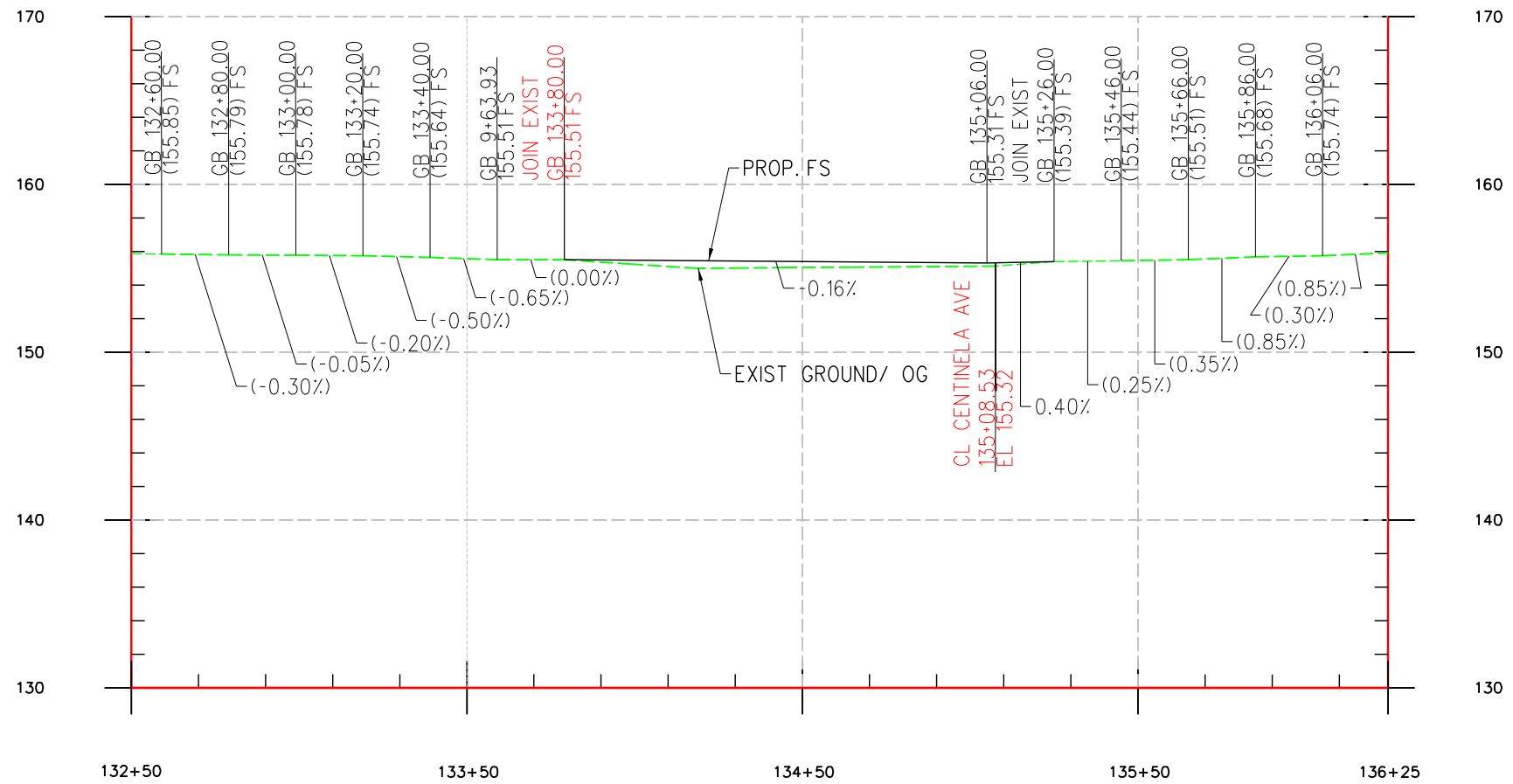
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 DATE: 05-13-2020

NOTES:
1. SEE TRACKWORK PLANS (T) FOR TRACK RELATED WORK



DATE \$
L \$
P \$
S \$
T \$

<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			<p>CENTINELA GRADE SEPARATION ROADWAY GEOMETRY ALTERNATIVE 2</p>	<p>HORZ: 1"=50' SCALE: VERT: 1"=10' DATE: 05-13-2020</p>
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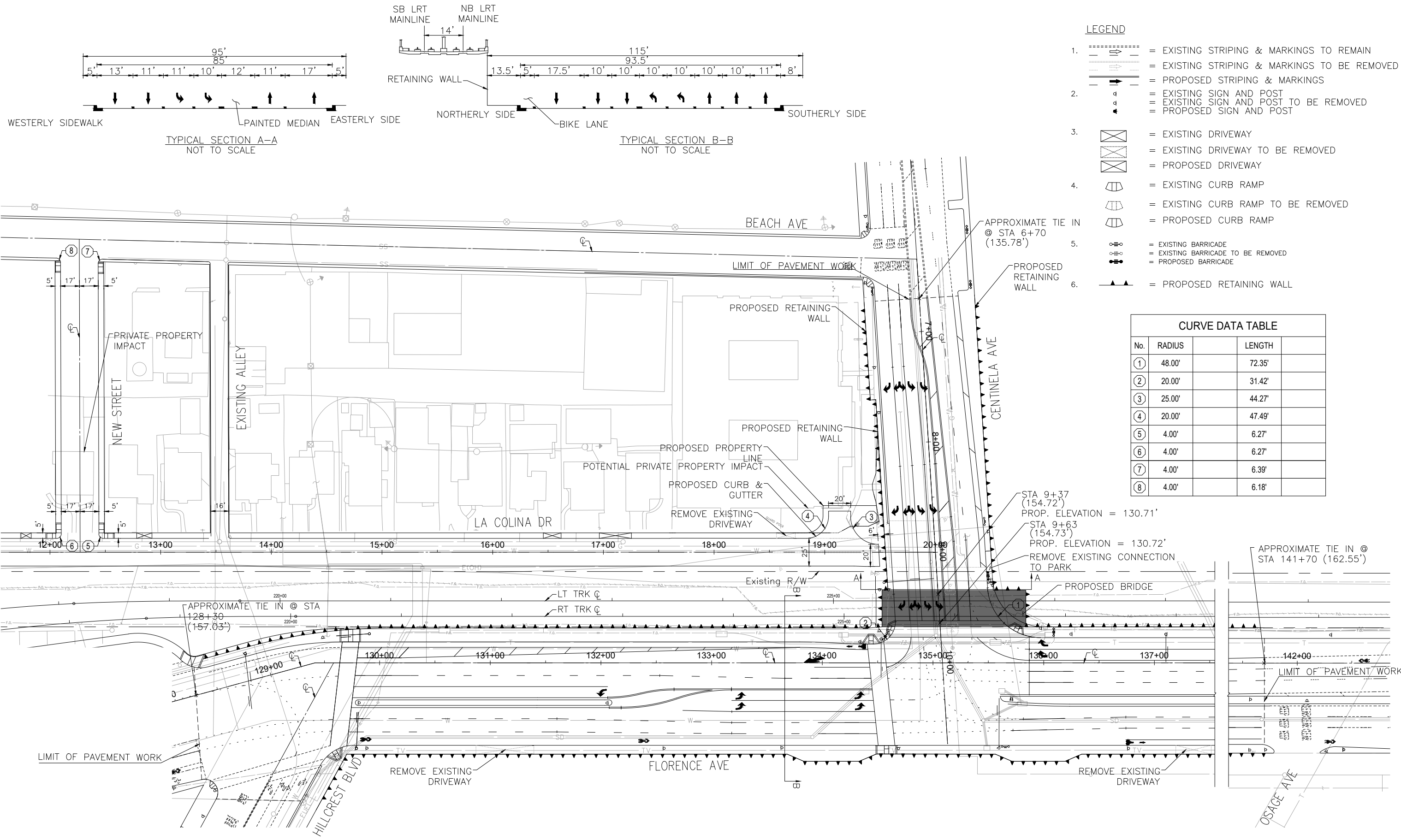


FLORENCE AVENUE CL PROFILE

\$DATE\$
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<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			CENTINELA GRADE SEPARATION ROADWAY GEOMETRY ALTERNATIVE 2	HORZ: 1"=50' SCALE: VERT: 1"=10' DATE: 05-13-2020
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A3R - ALTERNATIVE 3 ROADWAY LAYOUT

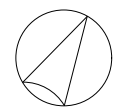


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 - = PROPOSED STRIPING & MARKINGS
 - 2. = EXISTING SIGN AND POST
 - = EXISTING SIGN AND POST TO BE REMOVED
 - = PROPOSED SIGN AND POST
 - 3. = EXISTING DRIVEWAY
 - = EXISTING DRIVEWAY TO BE REMOVED
 - = PROPOSED DRIVEWAY
 - 4. = EXISTING CURB RAMP
 - = EXISTING CURB RAMP TO BE REMOVED
 - = PROPOSED CURB RAMP
 - 5. = EXISTING BARRICADE
 - = EXISTING BARRICADE TO BE REMOVED
 - = PROPOSED BARRICADE
 - 6. = PROPOSED RETAINING WALL

CURVE DATA TABLE

No.	RADIUS	LENGTH
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②	20.00'	31.42'
③	25.00'	44.27'
④	20.00'	47.49'
⑤	4.00'	6.27'
⑥	4.00'	6.27'
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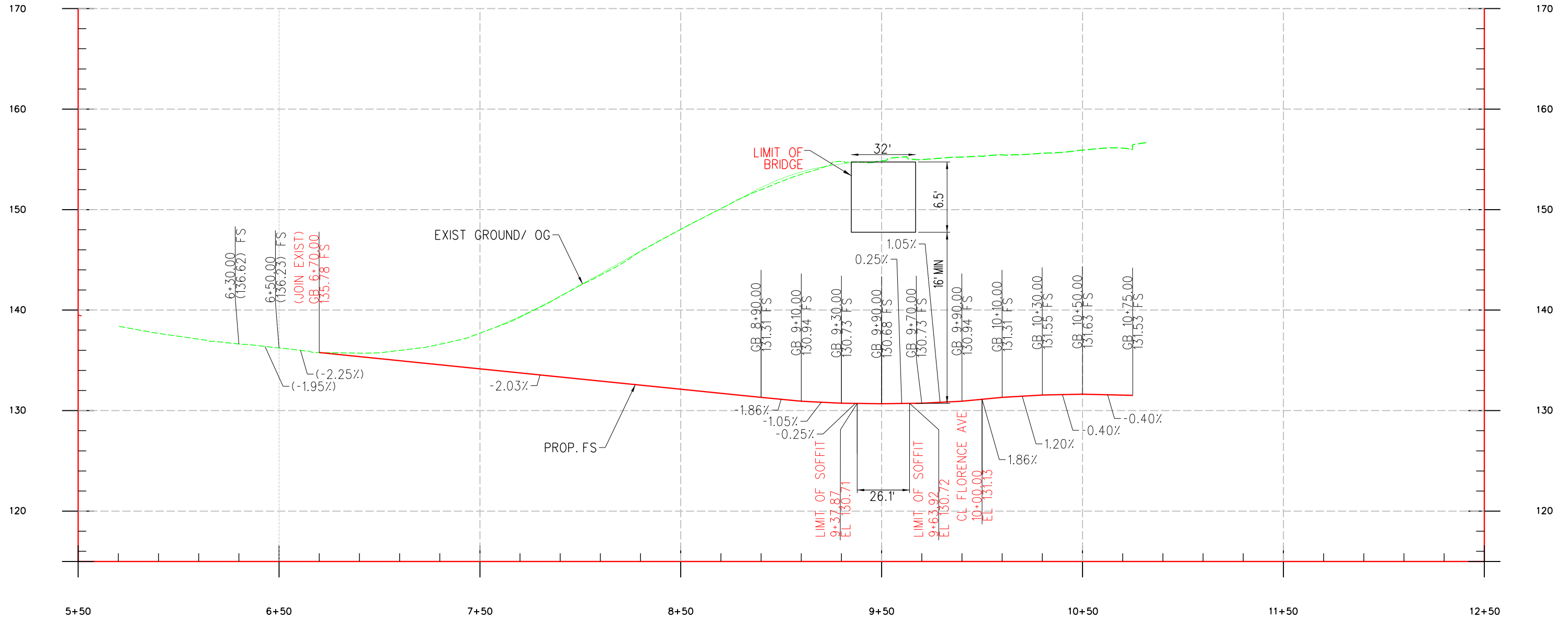


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CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 LAYOUT

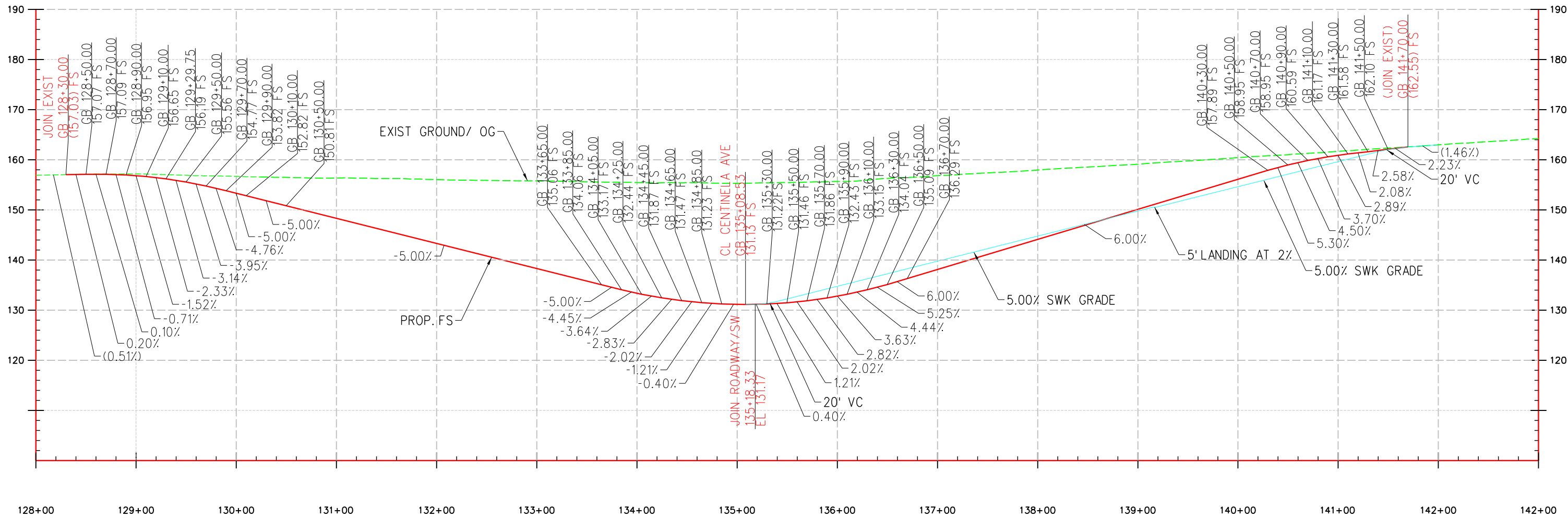
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CENTINELA AVENUE CL PROFILE

\$DATE\$
 \$LEVEL\$
 \$PROJECT\$
 \$SHEETNO\$

<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			<p>CENTINELA GRADE SEPARATION ROADWAY GEOMETRY ALTERNATIVE 3</p>	<p>HORZ: 1"=50' SCALE: VERT: 1"=10' DATE: 05-13-2020</p>
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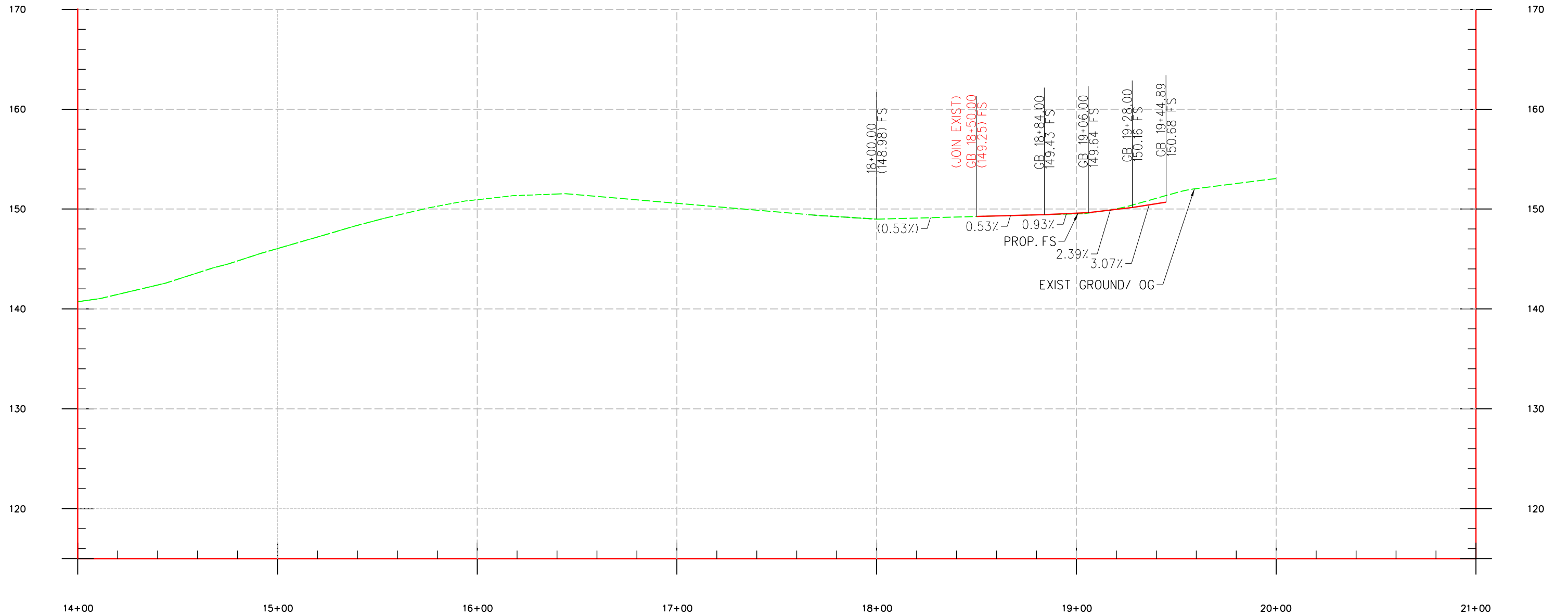


FLORENCE AVENUE CL PROFILE

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<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			<p>CENTINELA GRADE SEPARATION ROADWAY GEOMETRY ALTERNATIVE 3</p>	<p>HORZ: 1"=100' SCALE: VERT: 1"=20' DATE: 05-13-2020</p>
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LA COLINA DR CL PROFILE

\$DATE\$
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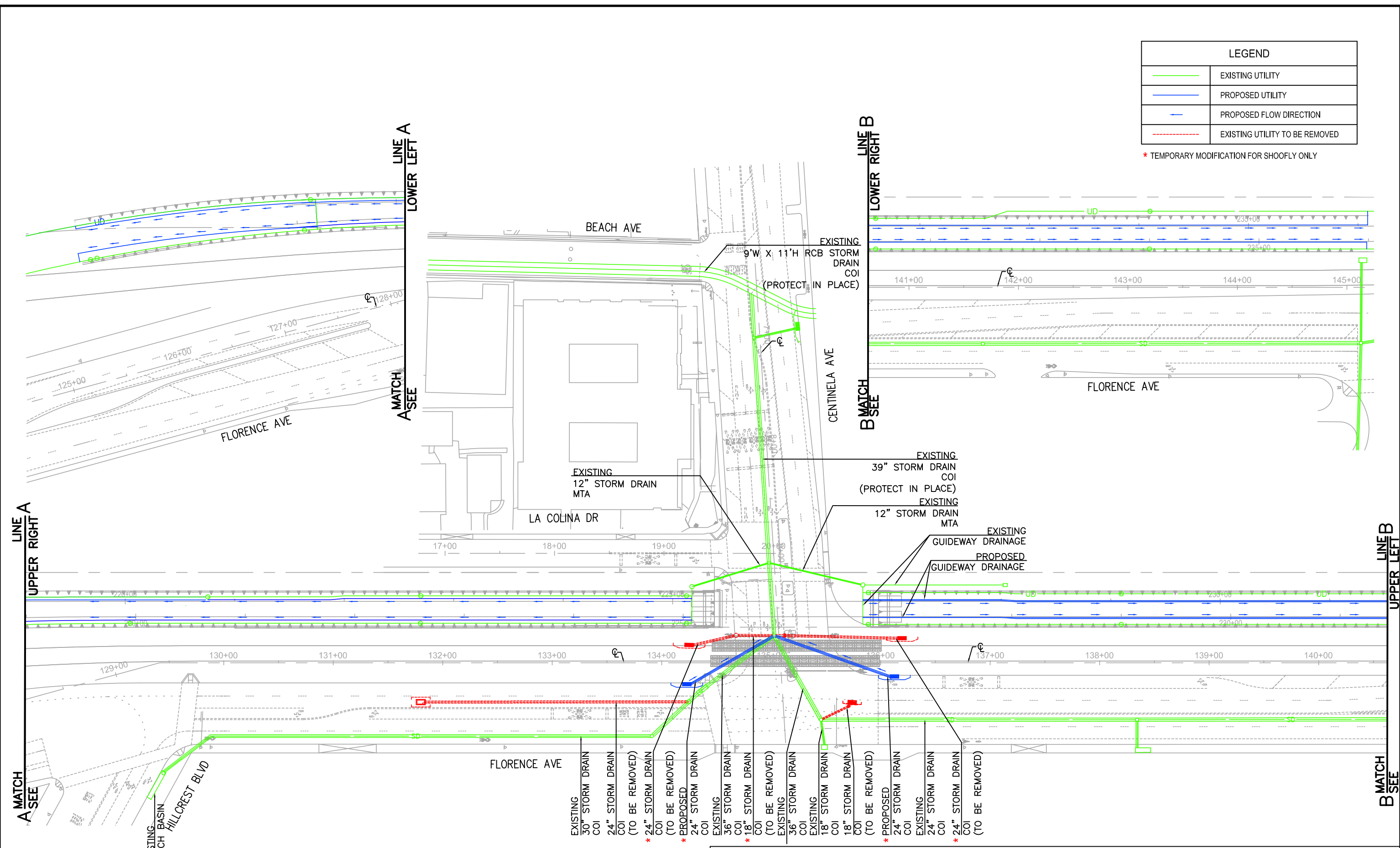
CENTINELA GRADE SEPARATION
 ROADWAY GEOMETRY
 ALTERNATIVE 3

HORIZ: 1"=50'
 SCALE: VERT: 1"=10'
 DATE: 05-13-2020

Attachment B – Drainage Exhibits

LEGEND	
	EXISTING UTILITY
	PROPOSED UTILITY
	PROPOSED FLOW DIRECTION
	EXISTING UTILITY TO BE REMOVED

* TEMPORARY MODIFICATION FOR SHOOFLY ONLY



DATE: 05-13-2020
 BY: [Signature]
 CHECKED: [Signature]
 APPROVED: [Signature]

- EXISTING 30" STORM DRAIN COI
- 24" STORM DRAIN (TO BE REMOVED)
- * 24" STORM DRAIN (TO BE REMOVED) PROPOSED
- EXISTING 36" STORM DRAIN COI
- * 18" STORM DRAIN (TO BE REMOVED) EXISTING
- EXISTING 36" STORM DRAIN COI
- EXISTING 18" STORM DRAIN COI
- 18" STORM DRAIN (TO BE REMOVED)
- * PROPOSED 24" STORM DRAIN COI
- EXISTING 24" STORM DRAIN COI
- * 24" STORM DRAIN (TO BE REMOVED)



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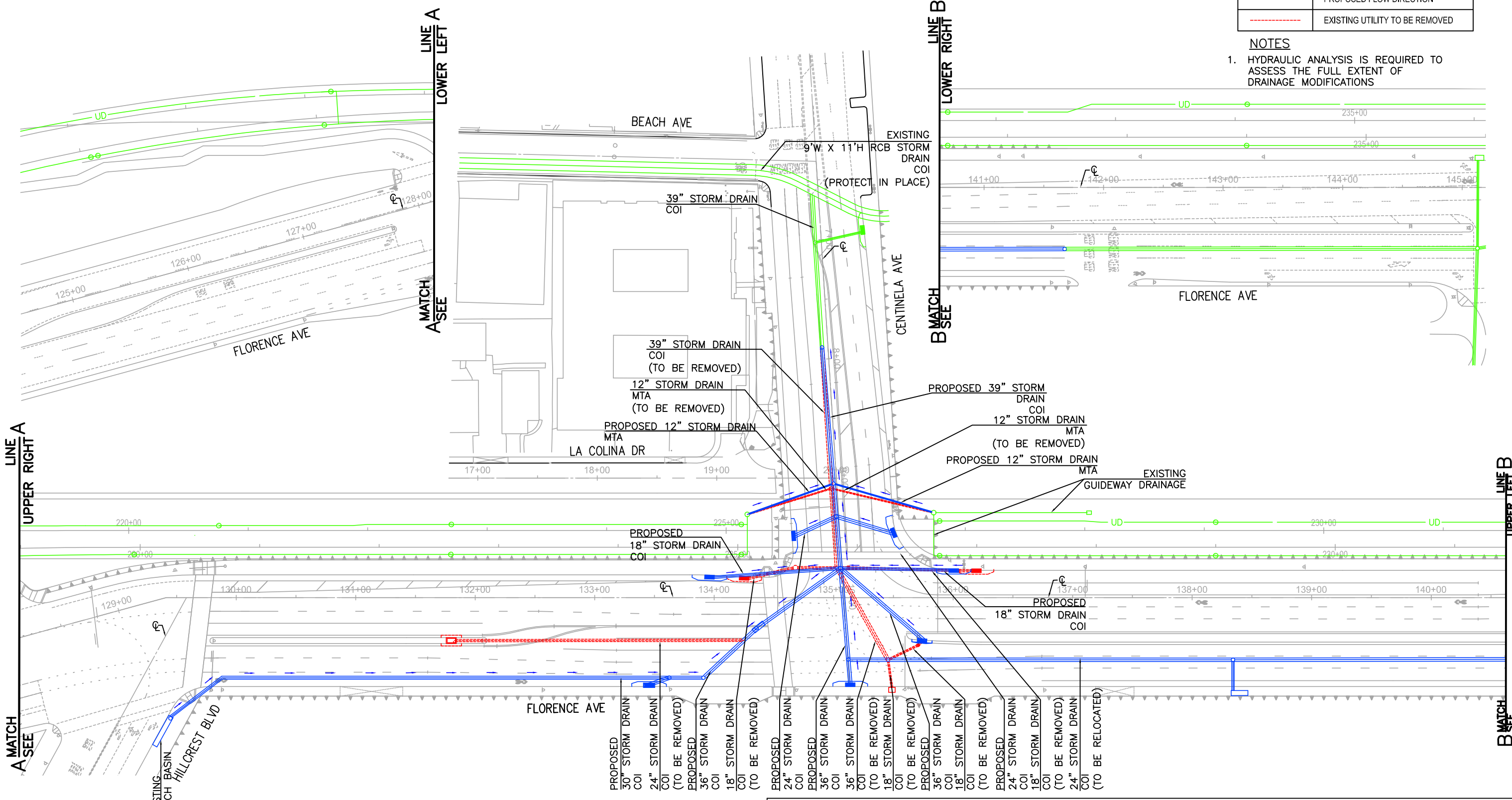


**CENTINELA GRADE SEPARATION
 ALTERNATIVE 1 - LRT ABOVE GRADE
 DRAINAGE EXHIBIT**

SCALE: **1"=40'**
 DATE: **05-13-2020**

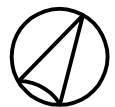
LEGEND	
	EXISTING UTILITY
	PROPOSED UTILITY
	PROPOSED FLOW DIRECTION
	EXISTING UTILITY TO BE REMOVED

- NOTES**
- HYDRAULIC ANALYSIS IS REQUIRED TO ASSESS THE FULL EXTENT OF DRAINAGE MODIFICATIONS



DATE: 05-13-2020
 BY: [Redacted]
 CHECKED: [Redacted]
 APPROVED: [Redacted]

- PROPOSED 30" STORM DRAIN COI
- 24" STORM DRAIN COI (TO BE REMOVED)
- PROPOSED 36" STORM DRAIN COI
- 18" STORM DRAIN COI (TO BE REMOVED)
- PROPOSED 24" STORM DRAIN COI
- PROPOSED 36" STORM DRAIN COI
- 36" STORM DRAIN COI (TO BE REMOVED)
- 18" STORM DRAIN COI (TO BE REMOVED)
- PROPOSED 36" STORM DRAIN COI
- 18" STORM DRAIN COI (TO BE REMOVED)
- PROPOSED 24" STORM DRAIN COI
- 18" STORM DRAIN COI (TO BE REMOVED)
- 24" STORM DRAIN COI (TO BE RELOCATED)



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 213.972.9700



**CENTINELA GRADE SEPARATION
 ALTERNATIVE 3 - LRT AT GRADE
 DRAINAGE EXHIBIT**

SCALE: **1"=40'**
 DATE: **05-13-2020**

V:\B3\VA-1907 - LA Metro SES - HDR\Florence_Centinela\Design\01_Screening_Analysis\CADD\Sheets\Drainage\SES_Centinela_Drainage_Exhibit - Alt 3.dwg May 13, 2020 9:02am_jpegrete



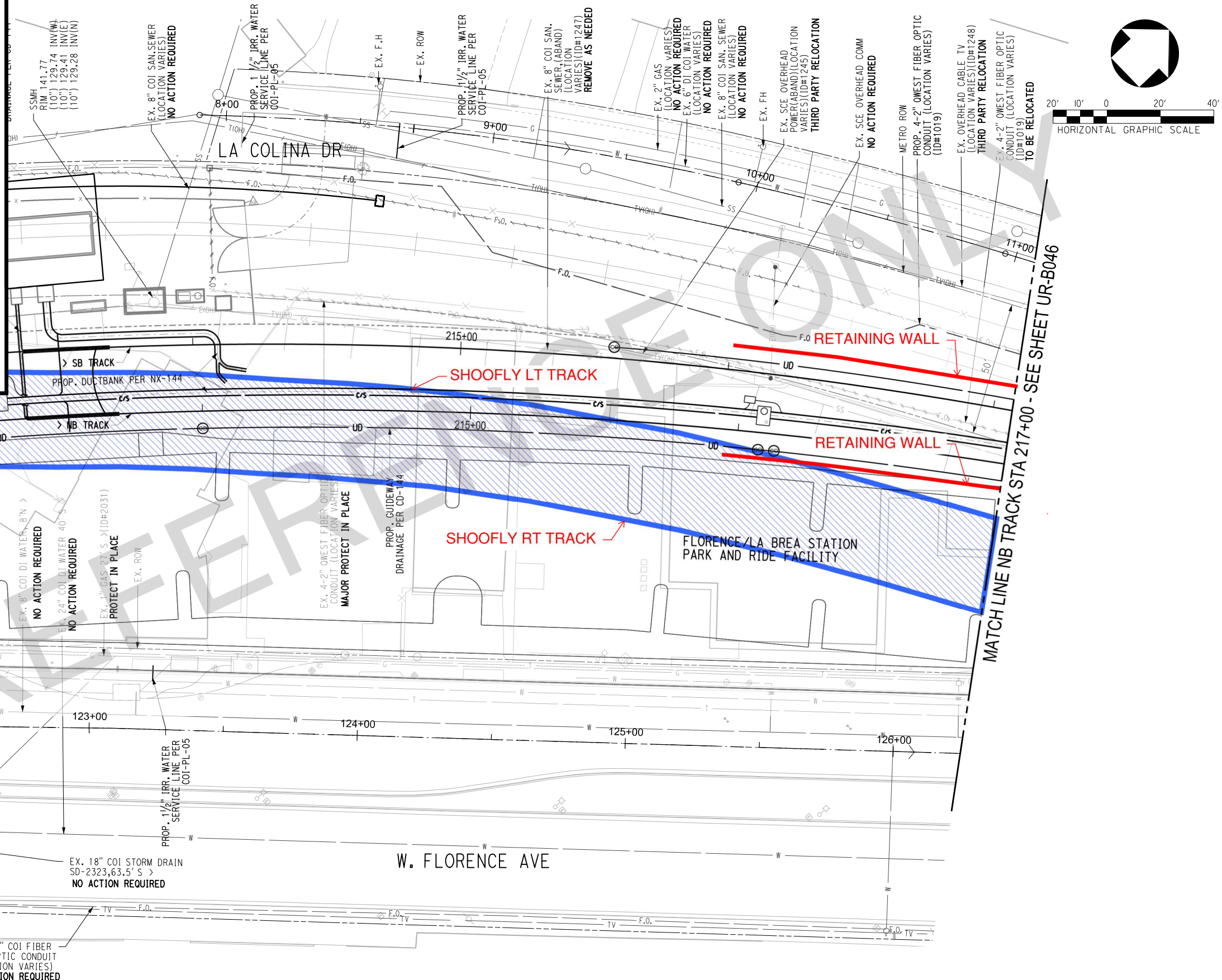
Attachment C – Utility Exhibits

GENERAL NOTES

1. ALL OCS POLES ARE ASSUMED TO BE RELOCATED DUE TO CONFLICT WITH PROPOSED AERIAL TRACK.
2. DEPENDING ON DEPTH OF THE RETAINING WALL, UTILITIES RUNNING PARALLEL WITH TRACK MAY BE SUBJECT TO RELOCATION.
3. ANY UTILITIES OR STRUCTURES IN CONFLICT WITH AERIAL ALIGNMENT SHALL BE RELOCATED.
4. DEPENDING ON DEPTH OF THE RETAINING WALL, THE 60" WATER LINE MAY BE SUBJECT TO RELOCATION FOR THE AERIAL.

LEGEND

- CONCRETE ENCASEMENT
- STEEL CASING
- RETAINING WALL
- SHOOFLY TRACK
- RELOCATE
- POTENTIAL 60" WATER RELOCATION



MATCH LINE NB TRACK STA 212+00

MATCH LINE NB TRACK STA 217+00 - SEE SHEET UR-B046

NOT FOR CONSTRUCTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1994, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro



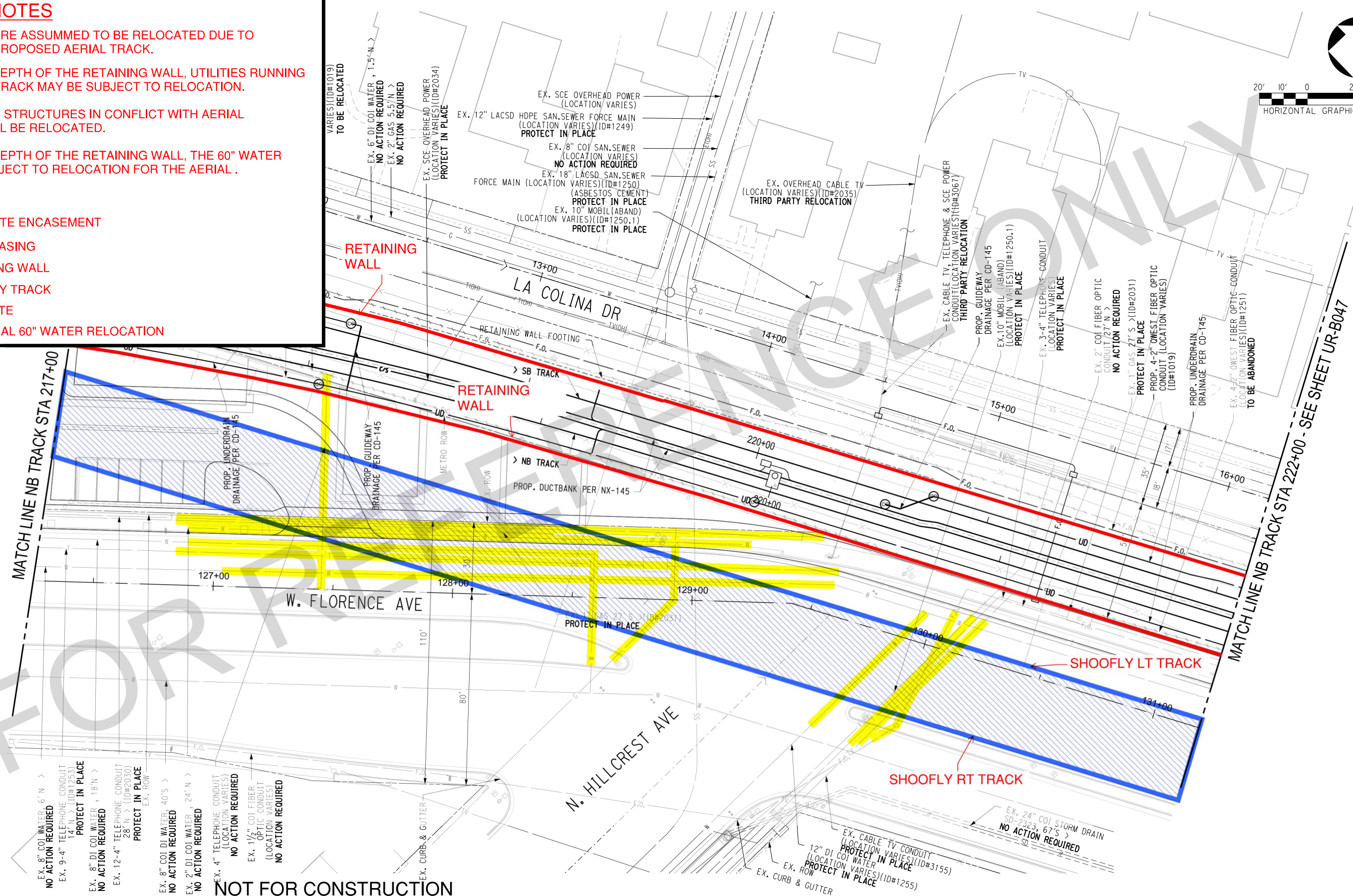
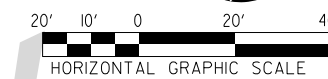
ALTERNATIVE 1
AERIAL EXHIBIT

GENERAL NOTES

1. ALL OCS POLES ARE ASSUMED TO BE RELOCATED DUE TO CONFLICT WITH PROPOSED AERIAL TRACK.
2. DEPENDING ON DEPTH OF THE RETAINING WALL, UTILITIES RUNNING PARALLEL WITH TRACK MAY BE SUBJECT TO RELOCATION.
3. ANY UTILITIES OR STRUCTURES IN CONFLICT WITH AERIAL ALIGNMENT SHALL BE RELOCATED.
4. DEPENDING ON DEPTH OF THE RETAINING WALL, THE 60" WATER LINE MAY BE SUBJECT TO RELOCATION FOR THE AERIAL.

LEGEND

- CONCRETE ENCASEMENT
- STEEL CASING
- RETAINING WALL
- SHOOFLY TRACK
- RELOCATE
- POTENTIAL 60" WATER RELOCATION



NOT FOR CONSTRUCTION

EX. 8" COI WATER, 6" N >
NO ACTION REQUIRED
EX. 9-4" TELEPHONE CONDUIT
14" N > (ID#1253)
PROTECT IN PLACE
EX. 8" DI COI WATER, 18" N >
NO ACTION REQUIRED
EX. 12-4" TELEPHONE CONDUIT
28" N > (ID#2030)
PROTECT IN PLACE
EX. 8" COI WATER, 40' S >
NO ACTION REQUIRED
EX. 2" DI COI WATER, 24" N >
NO ACTION REQUIRED
EX. 4" TELEPHONE CONDUIT
(LOCATION VARIES)
NO ACTION REQUIRED
EX. 1 1/2" COI FIBER
OPTIC CONDUIT
(LOCATION VARIES)
NO ACTION REQUIRED
EX. CURB & GUTTER

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
TRUE ENGINEERING EXCELLENCE

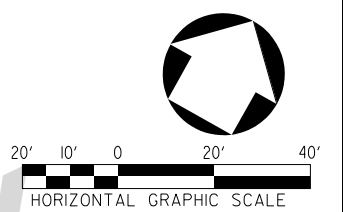
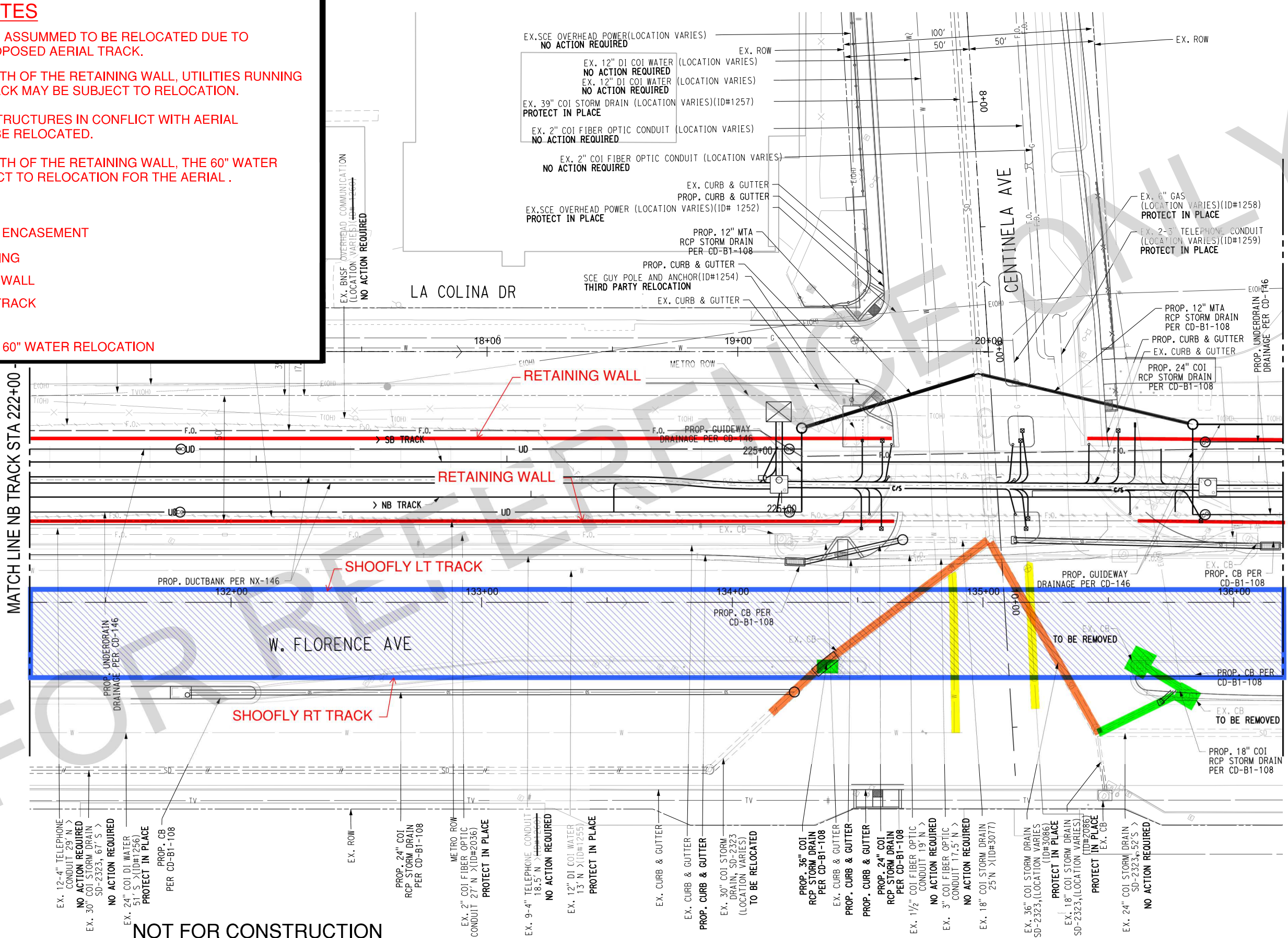
**ALTERNATIVE 1
AERIAL EXHIBIT**

GENERAL NOTES

1. ALL OCS POLES ARE ASSUMED TO BE RELOCATED DUE TO CONFLICT WITH PROPOSED AERIAL TRACK.
2. DEPENDING ON DEPTH OF THE RETAINING WALL, UTILITIES RUNNING PARALLEL WITH TRACK MAY BE SUBJECT TO RELOCATION.
3. ANY UTILITIES OR STRUCTURES IN CONFLICT WITH AERIAL ALIGNMENT SHALL BE RELOCATED.
4. DEPENDING ON DEPTH OF THE RETAINING WALL, THE 60" WATER LINE MAY BE SUBJECT TO RELOCATION FOR THE AERIAL.

LEGEND

- CONCRETE ENCASEMENT
- STEEL CASING
- RETAINING WALL
- SHOOFLY TRACK
- RELOCATE
- POTENTIAL 60" WATER RELOCATION



MATCH LINE NB TRACK STA 222+00

MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR-B048

NOT FOR CONSTRUCTION

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
 THE ENGINEERING EXCELLENCE

ALTERNATIVE 1
AERIAL EXHIBIT

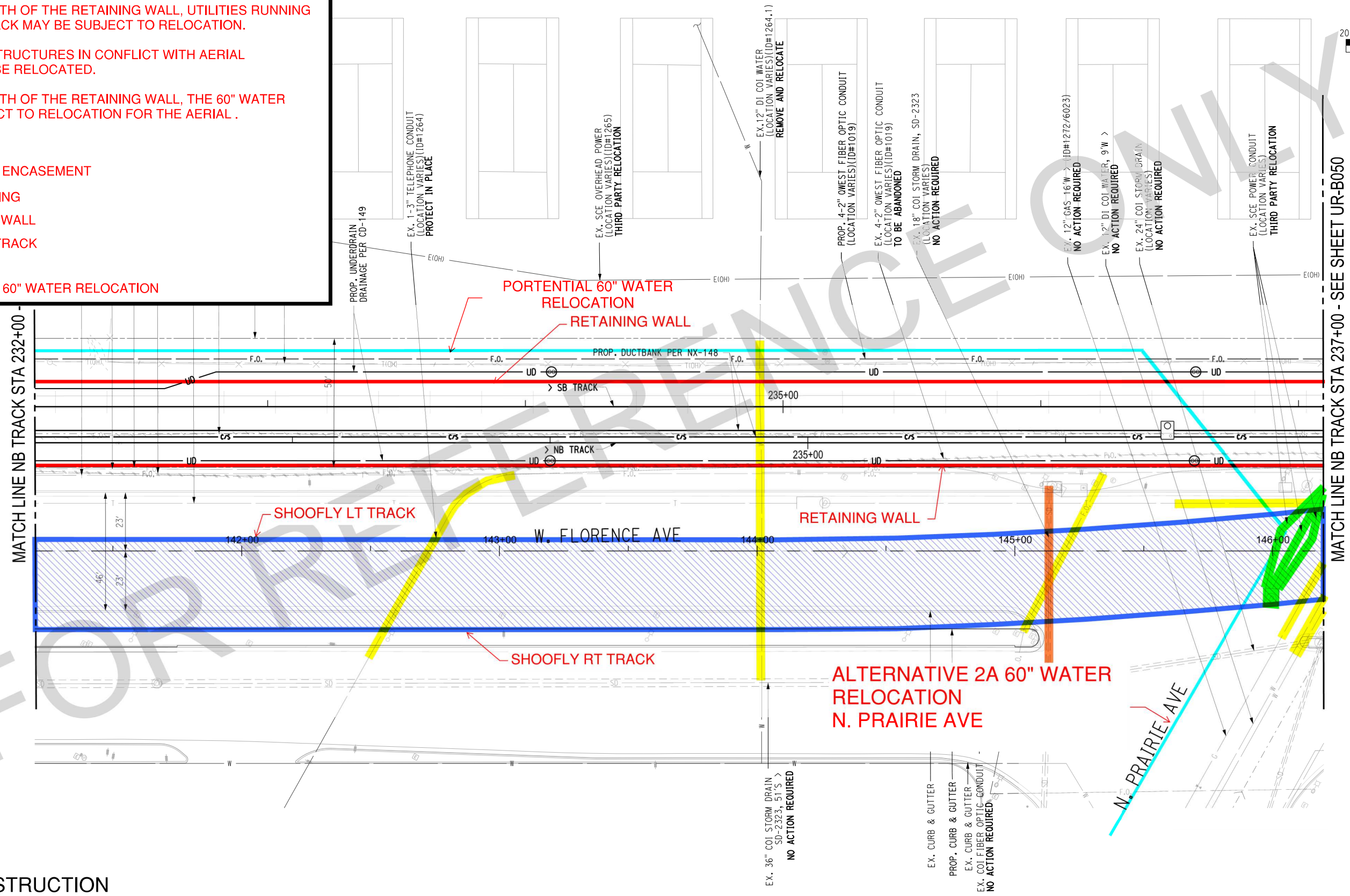
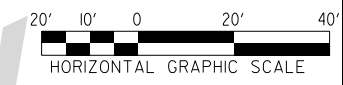
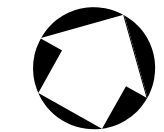
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GENERAL NOTES

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LEGEND

- CONCRETE ENCASEMENT
- STEEL CASING
- RETAINING WALL
- SHOOFLY TRACK
- RELOCATE
- POTENTIAL 60" WATER RELOCATION



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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
 THE ENGINEERING EXCELLENCE

ALTERNATIVE 1
AERIAL EXHIBIT

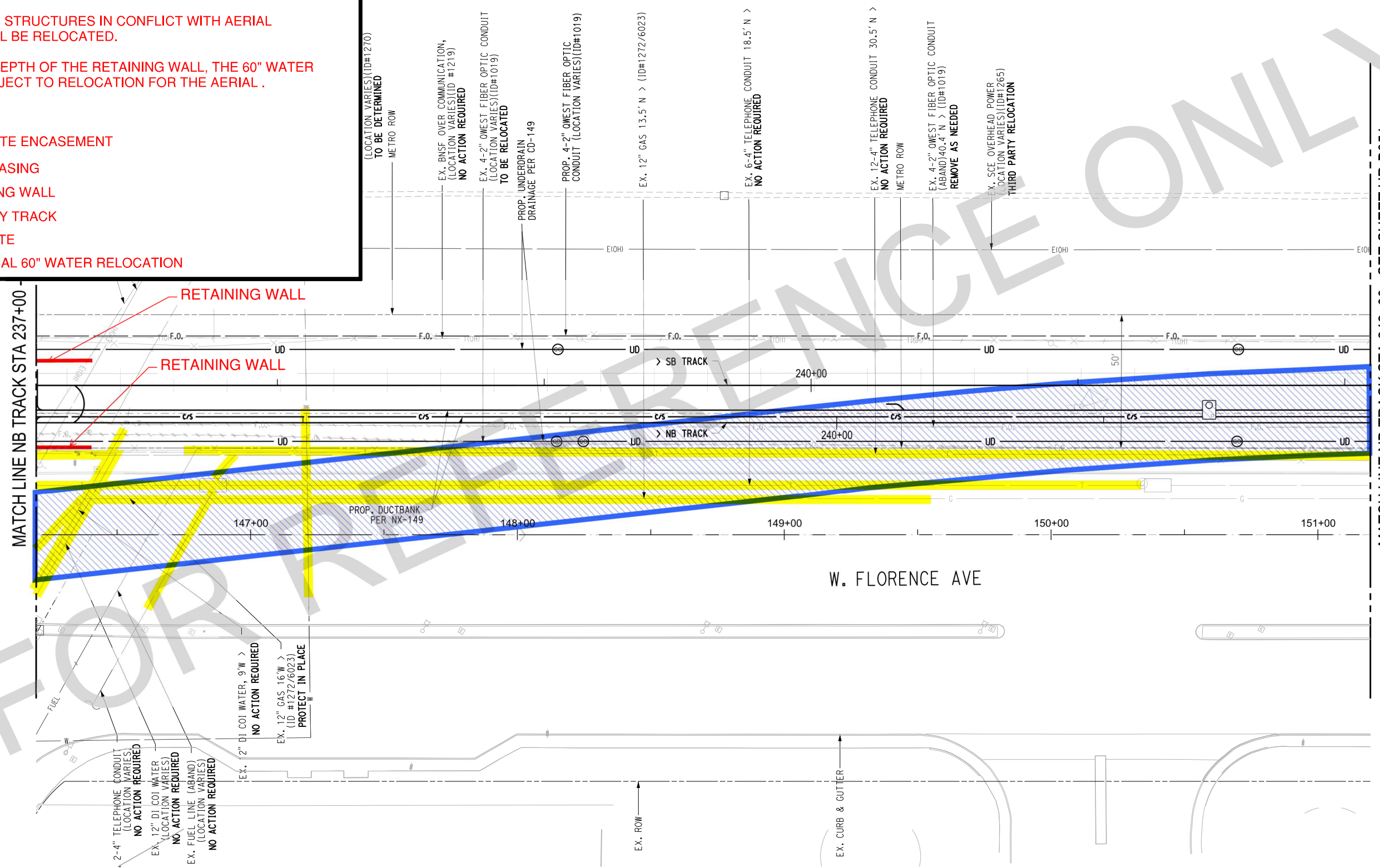
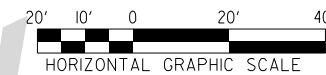
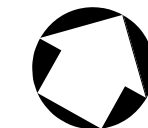
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 Penable: CVD,pen
 P01 Drive: SPLTDIVSS

GENERAL NOTES

1. ALL OCS POLES ARE ASSUMED TO BE RELOCATED DUE TO CONFLICT WITH PROPOSED AERIAL TRACK.
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LEGEND

- CONCRETE ENCASEMENT
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Metro






ALTERNATIVE 1
AERIAL EXHIBIT

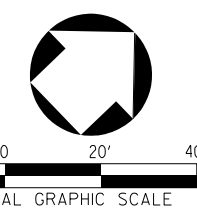
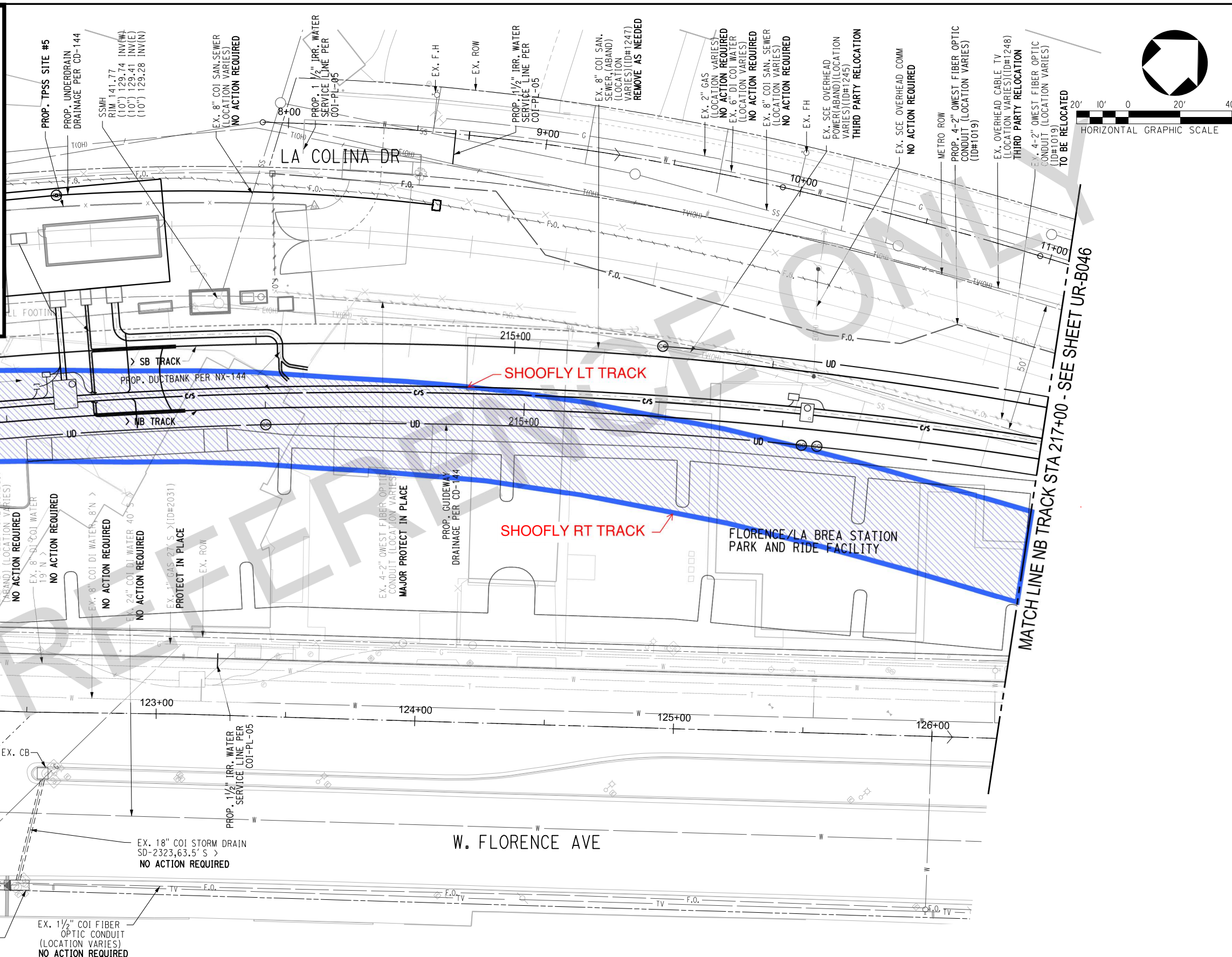
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GENERAL NOTES

1. ALL EXISTING UTILITY DEPTHS TO BE FIELD VERIFIED AND POSSIBLY TEMPORARILY HUNG.
2. ALL UTILITES WITH A DEPTH GREATER THAN 10' MAY BE SUBJECT TO RELOCATION.

LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 212+00 - SEE SH

MATCH LINE NB TRACK STA 217+00 - SEE SHEET UR-B046

NOT FOR CONSTRUCTION

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 2
 BELOW GRADE**

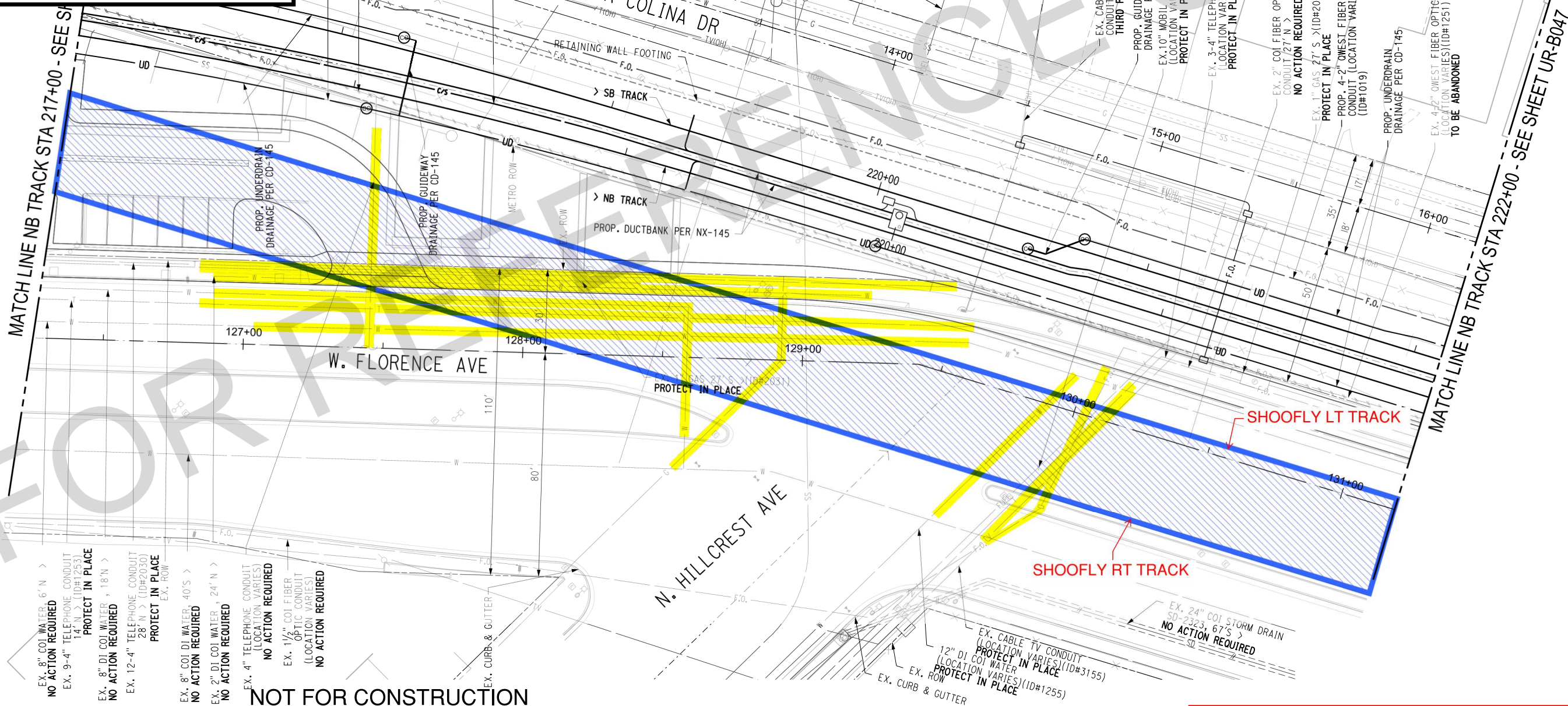
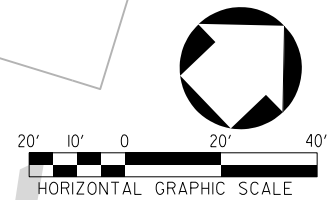
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GENERAL NOTES

1. ALL EXISTING UTILITY DEPTHS TO BE FIELD VERIFIED AND POSSIBLY TEMPORARILY HUNG.
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LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
 TRANSPORTATION ENGINEERING






**ALTERNATIVE 2
 BELOW GRADE**

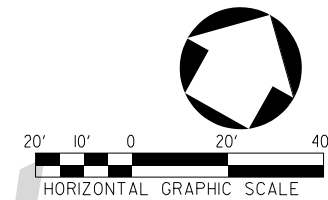
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GENERAL NOTES

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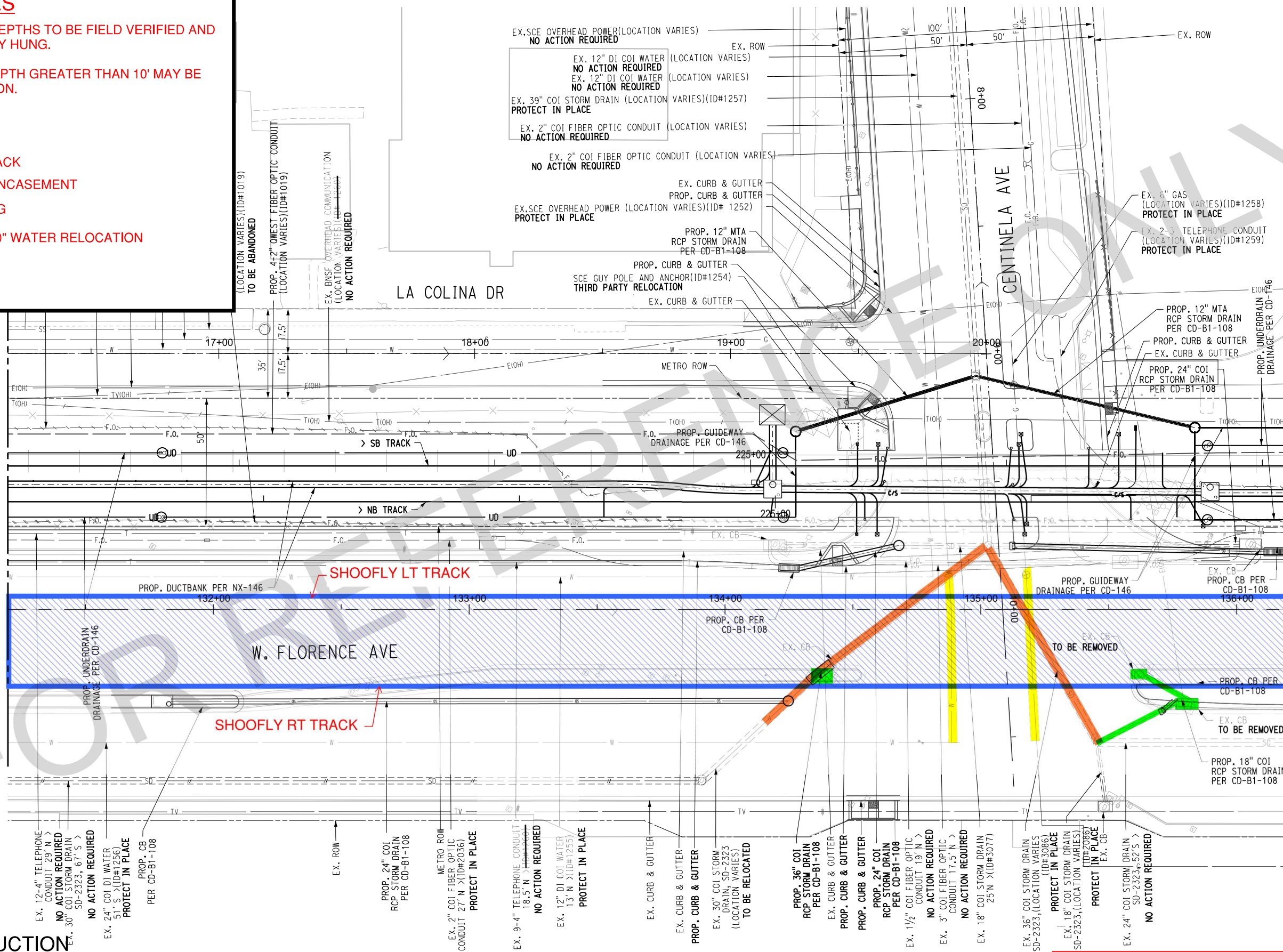
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 222+00 - SEE SH

MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR-B048



NOT FOR CONSTRUCTION

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro






EA INC.
 THE ENGINEERING EXCELLENCE

**ALTERNATIVE 2
 BELOW GRADE**

GENERAL NOTES

1. ALL EXISTING UTILITY DEPTHS TO BE FIELD VERIFIED AND POSSIBLY TEMPORARILY HUNG.
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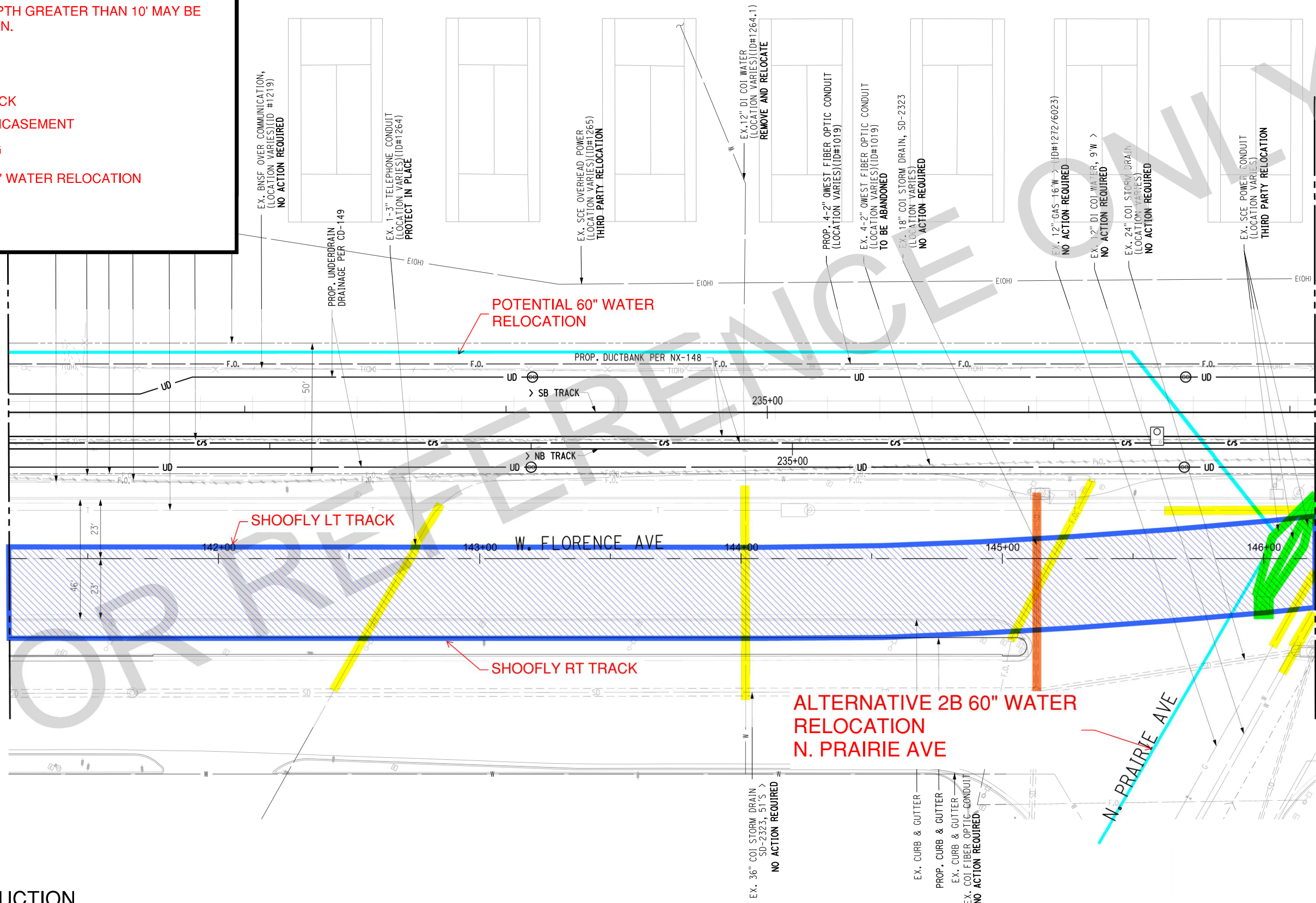
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 232+00 - SEE SH

MATCH LINE NB TRACK STA 237+00 - SEE SHEET UR-B050



NOT FOR CONSTRUCTION

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DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
 THE ENGINEERING RESOURCE






ALTERNATIVE 2
BELOW GRADE

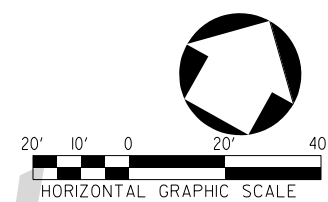
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GENERAL NOTES

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2. ALL UTILITES WITH A DEPTH GREATER THAN 10' MAY BE SUBJECT TO RELOCATION.

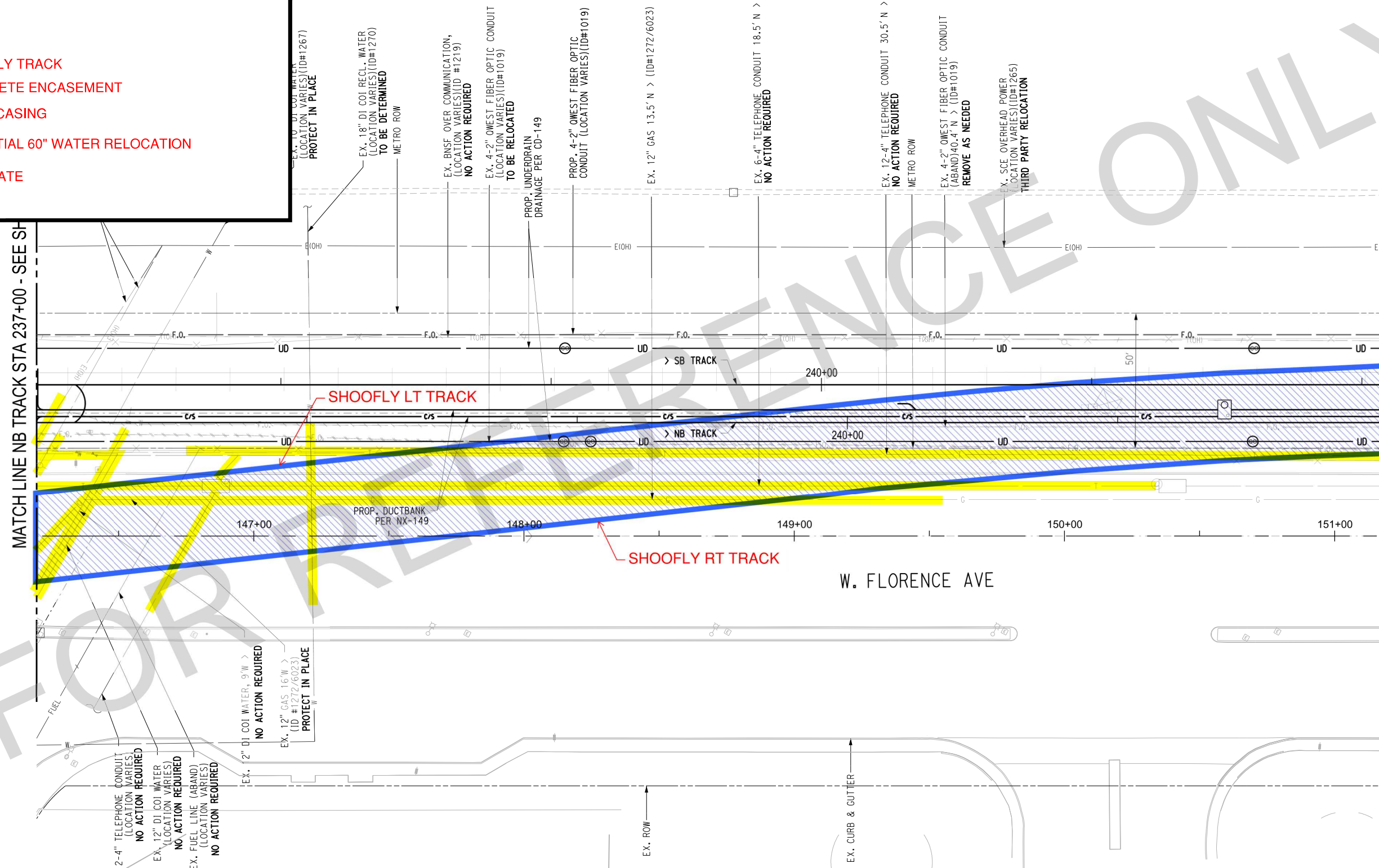
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 237+00 - SEE SH

MATCH LINE NB TRACK STA 242+00 - SEE SHEET UR-B051



NOT FOR CONSTRUCTION

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro








ALTERNATIVE 2
BELOW GRADE

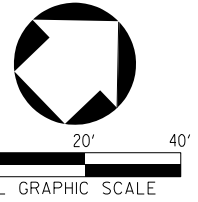
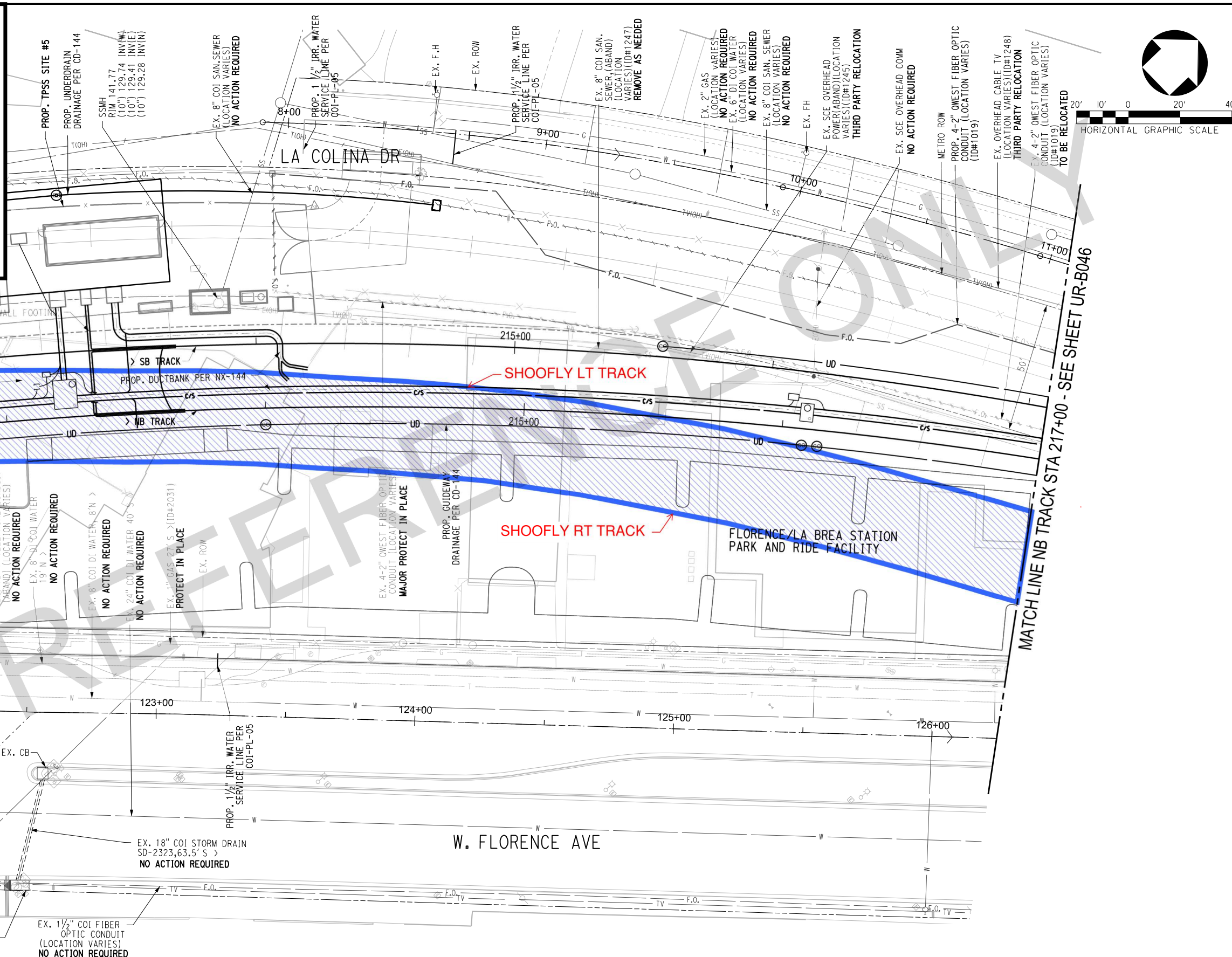
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GENERAL NOTES

- ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 212+00 - SEE SHEET UR-B045

MATCH LINE NB TRACK STA 217+00 - SEE SHEET UR-B046

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 3
 RELOCATIONS**

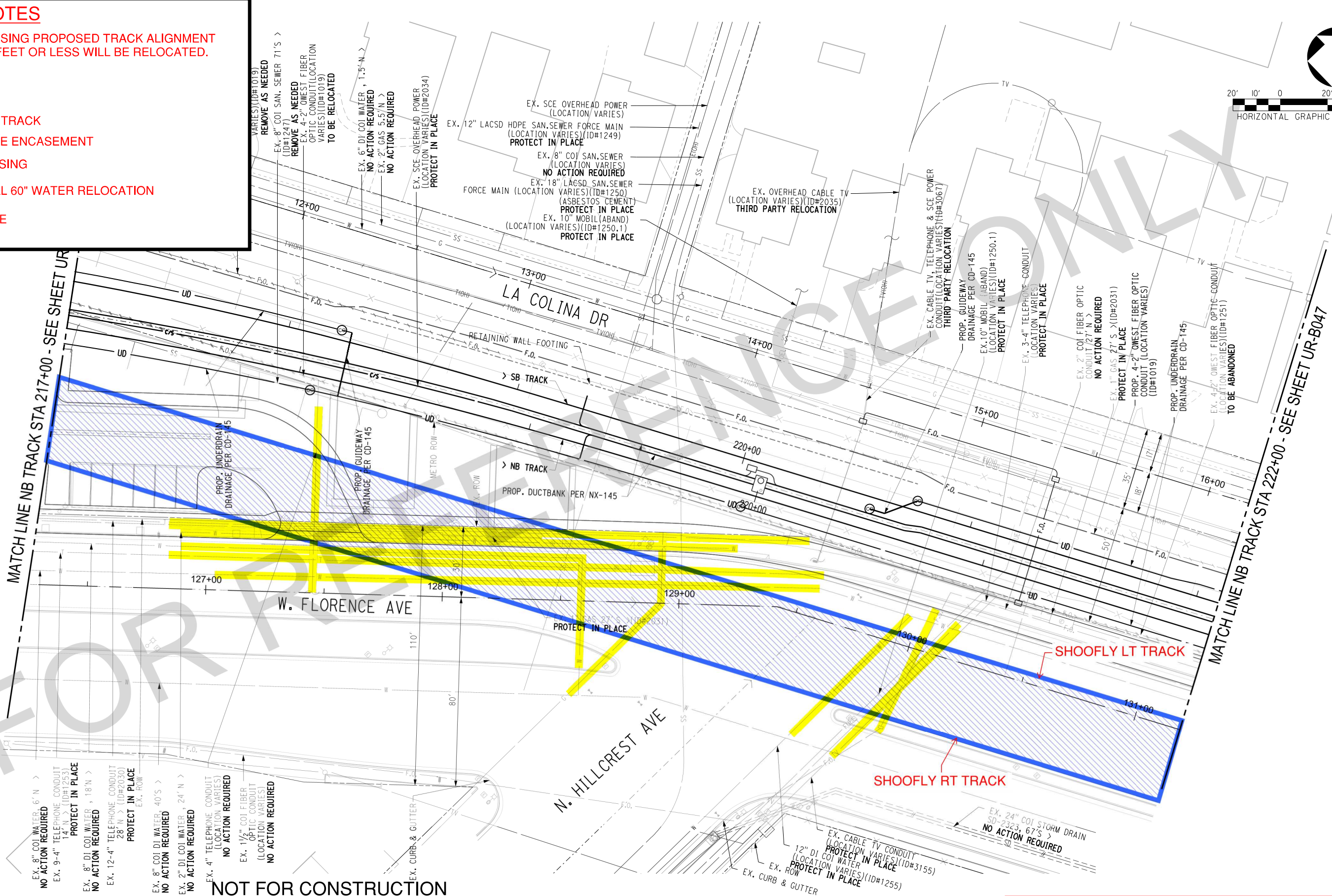
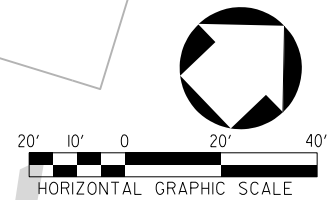
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GENERAL NOTES

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LEGEND

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-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



EX. 8" COI WATER, 6' N >
NO ACTION REQUIRED
EX. 9-4" TELEPHONE CONDUIT
14' N > (ID#1253)
PROTECT IN PLACE
EX. 8" DI COI WATER, 18' N >
NO ACTION REQUIRED
EX. 12-4" TELEPHONE CONDUIT
28' N > (ID#2030)
PROTECT IN PLACE
EX. ROW
EX. 8" COI WATER, 40' S >
NO ACTION REQUIRED
EX. 2" DI COI WATER, 24' N >
NO ACTION REQUIRED
EX. 4" TELEPHONE CONDUIT
(LOCATION VARIES)
NO ACTION REQUIRED
EX. 1 1/2" COI FIBER
OPTIC CONDUIT
(LOCATION VARIES)
NO ACTION REQUIRED
EX. CURB & GUTTER

NOT FOR CONSTRUCTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE 12/10/19

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M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro








**ALTERNATIVE 3
RELOCATIONS**

09/05 24-FEB-2016 p:\mtr\352\mb\c3\design_Bldg\Documents\Walt\50955\Crescent\LAAX Transit Corridor\Design Post\Awaro\CADD\Utility_Sheets\C088\URB030.dwg
 Penable: CVD/jea
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GENERAL NOTES

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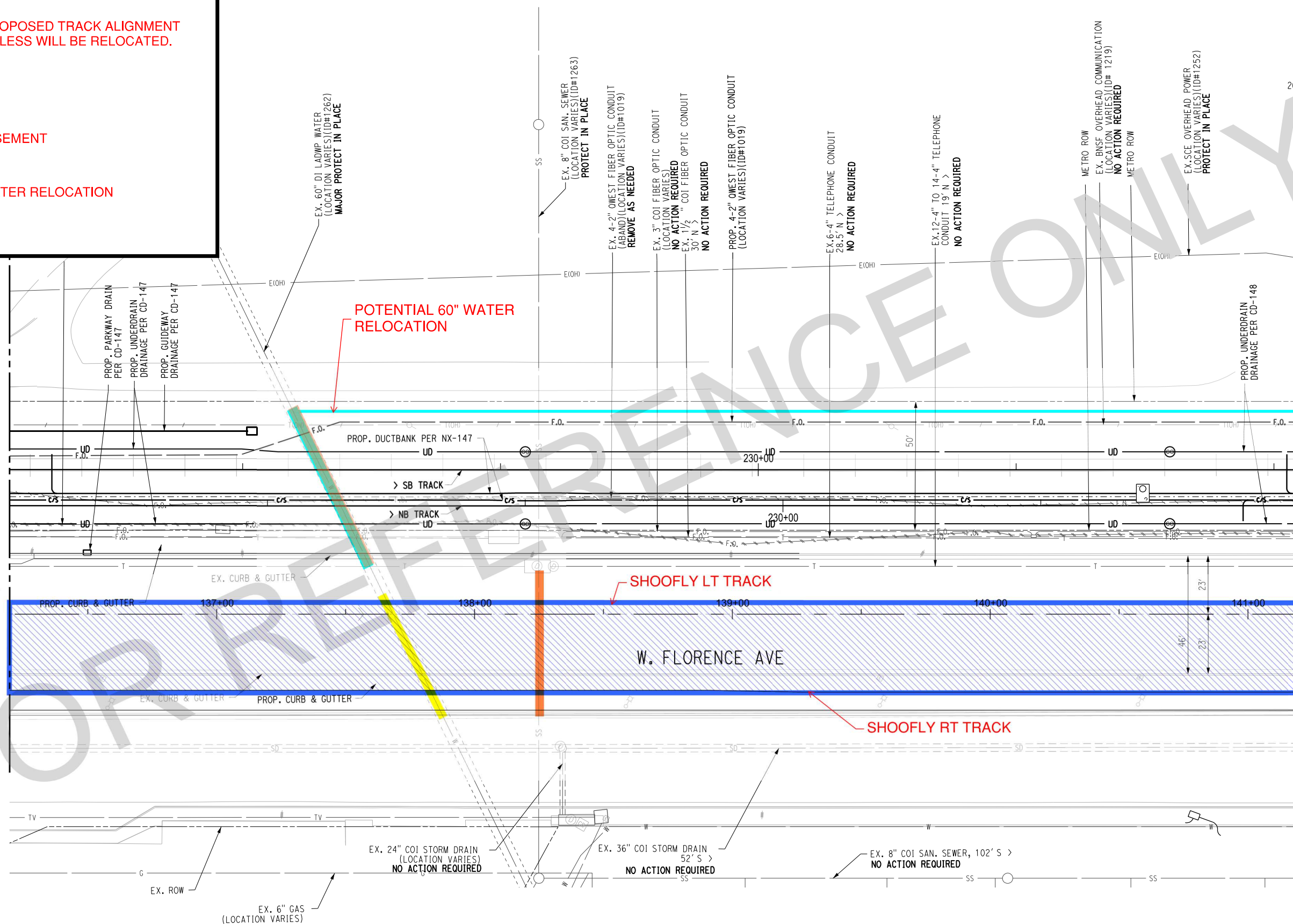
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR

MATCH LINE NB TRACK STA 232+00 - SEE SHEET UR-B049




NOT FOR CONSTRUCTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1994, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.						
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	12/10/19
DESCRIPTION	

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro








ALTERNATIVE 3
RELOCATIONS

24-FEB-2016 09:36 USER= smalley Penable= CVD.pen P:\In\ba352\mb.org\Design_Ballo\Documents\Walt50955\Cresshaw-LAX Transit Corridor\Design_Plan_Alt3\CD\Utility_Sheets\C03B8URB03.dwg

GENERAL NOTES

1. ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

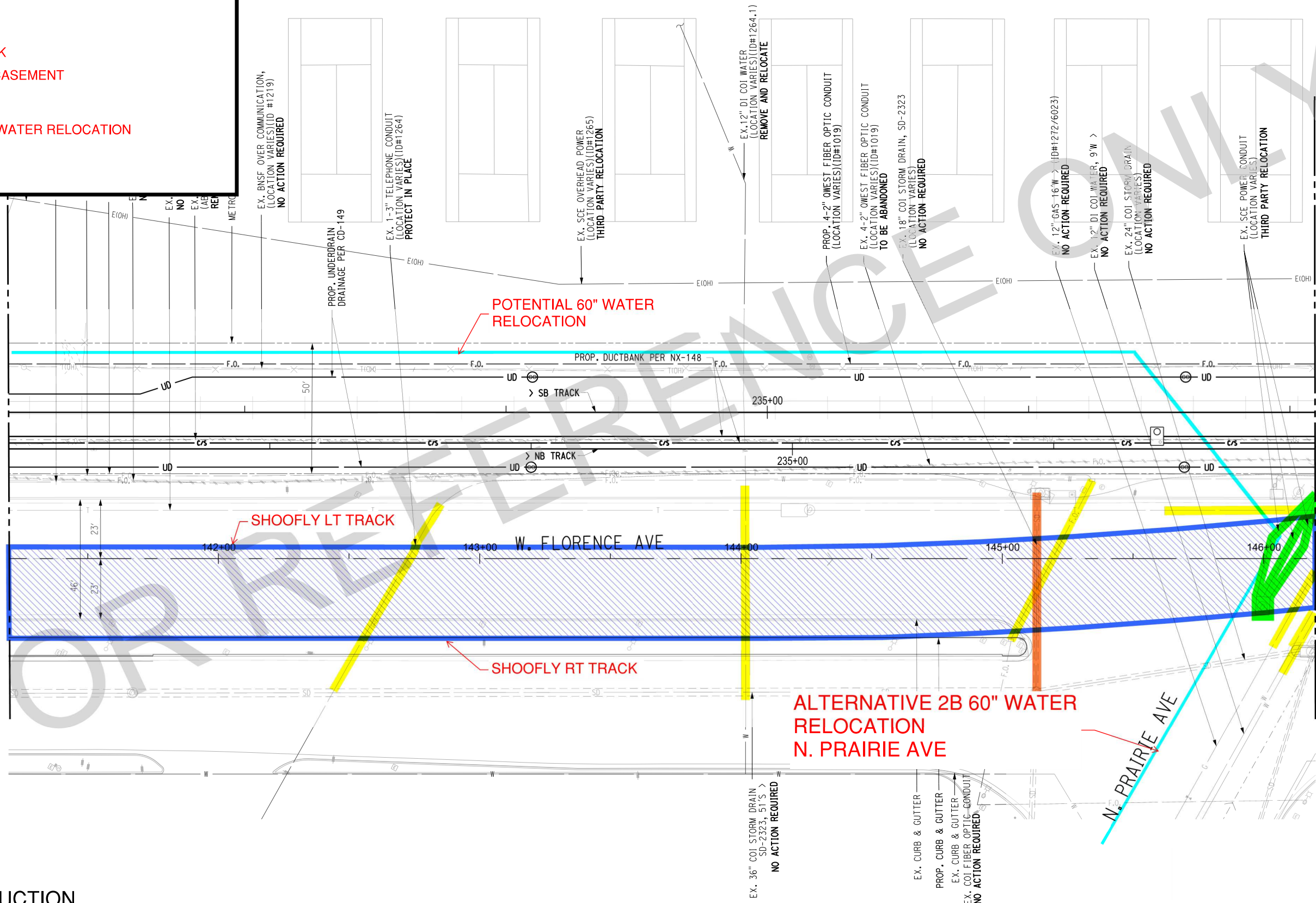
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 232+00 - SEE SHEET UR-B050

MATCH LINE NB TRACK STA 237+00 - SEE SHEET UR-B050



NOT FOR CONSTRUCTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.						
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro






BA INC.
 THE ENGINEERING PROFESSION

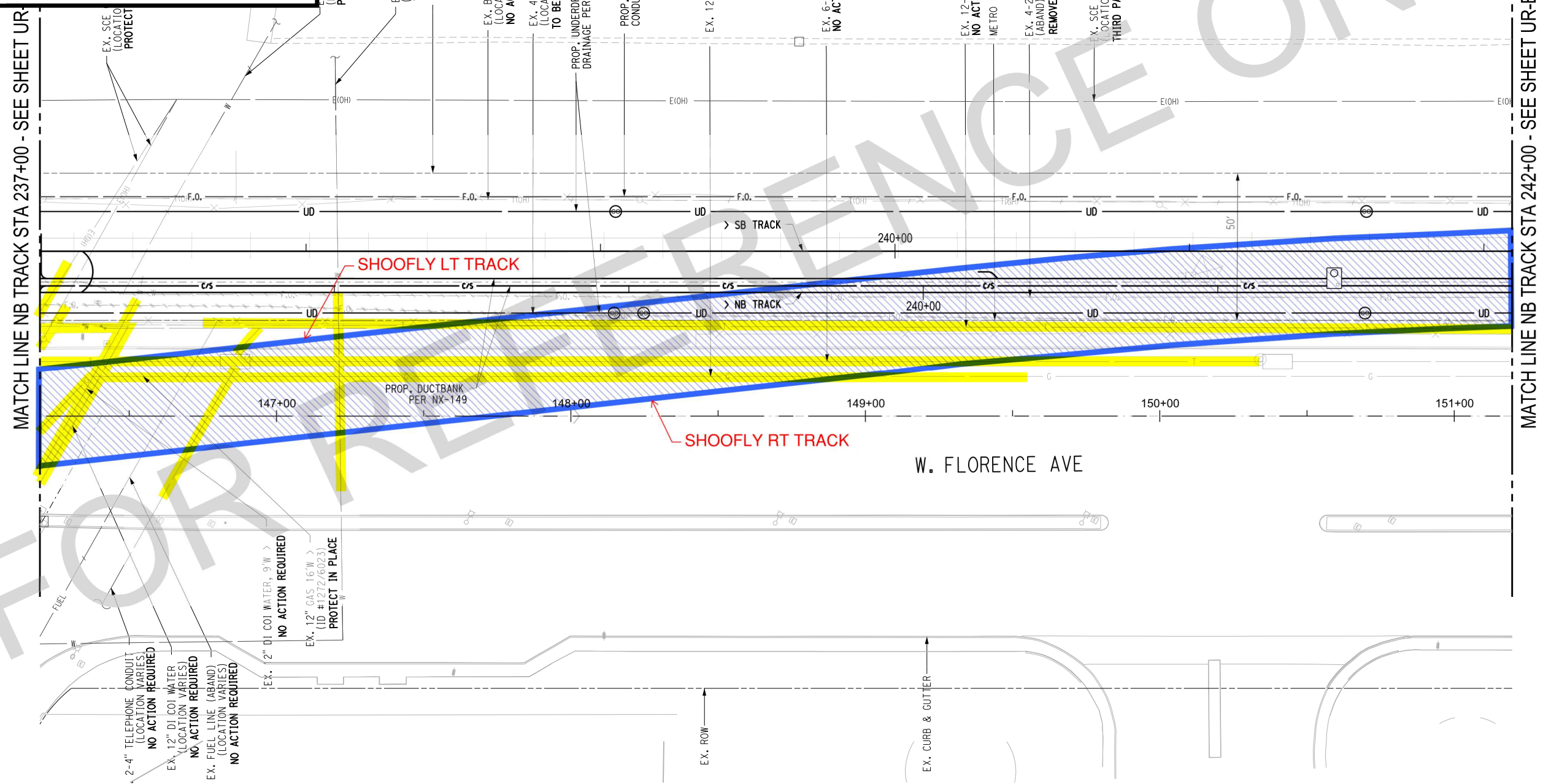
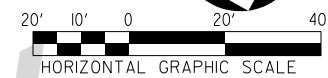
**ALTERNATIVE 3
 RELOCATIONS**

GENERAL NOTES

1. ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



NOT FOR CONSTRUCTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1994, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.						
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
 THE ENGINEERING EXCELLENCE

**ALTERNATIVE 3
 RELOCATIONS**

Attachment D – Stage Construction Exhibits

LEGEND	
	DIRECTION OF TRAVEL

STAGE 1 (6 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. CONSTRUCT SHOOFLY, MEDIANS, GATES, TEMPORARY CURB AND RAMPS (TEMPORARY/ SECTIONAL CLOSURES)
2. INSTALL TEMPORARY TRAFFIC SIGNAL

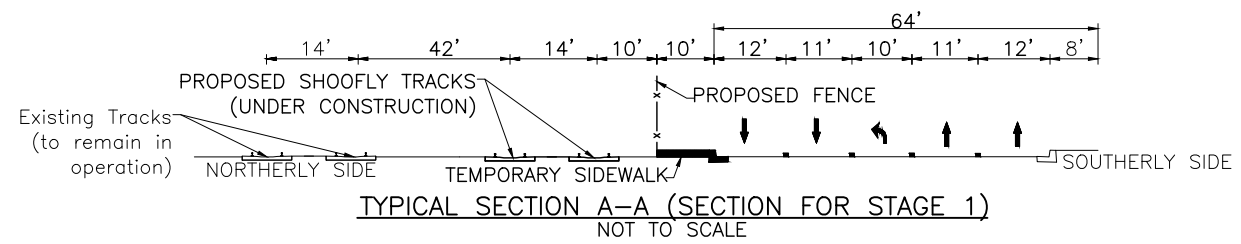
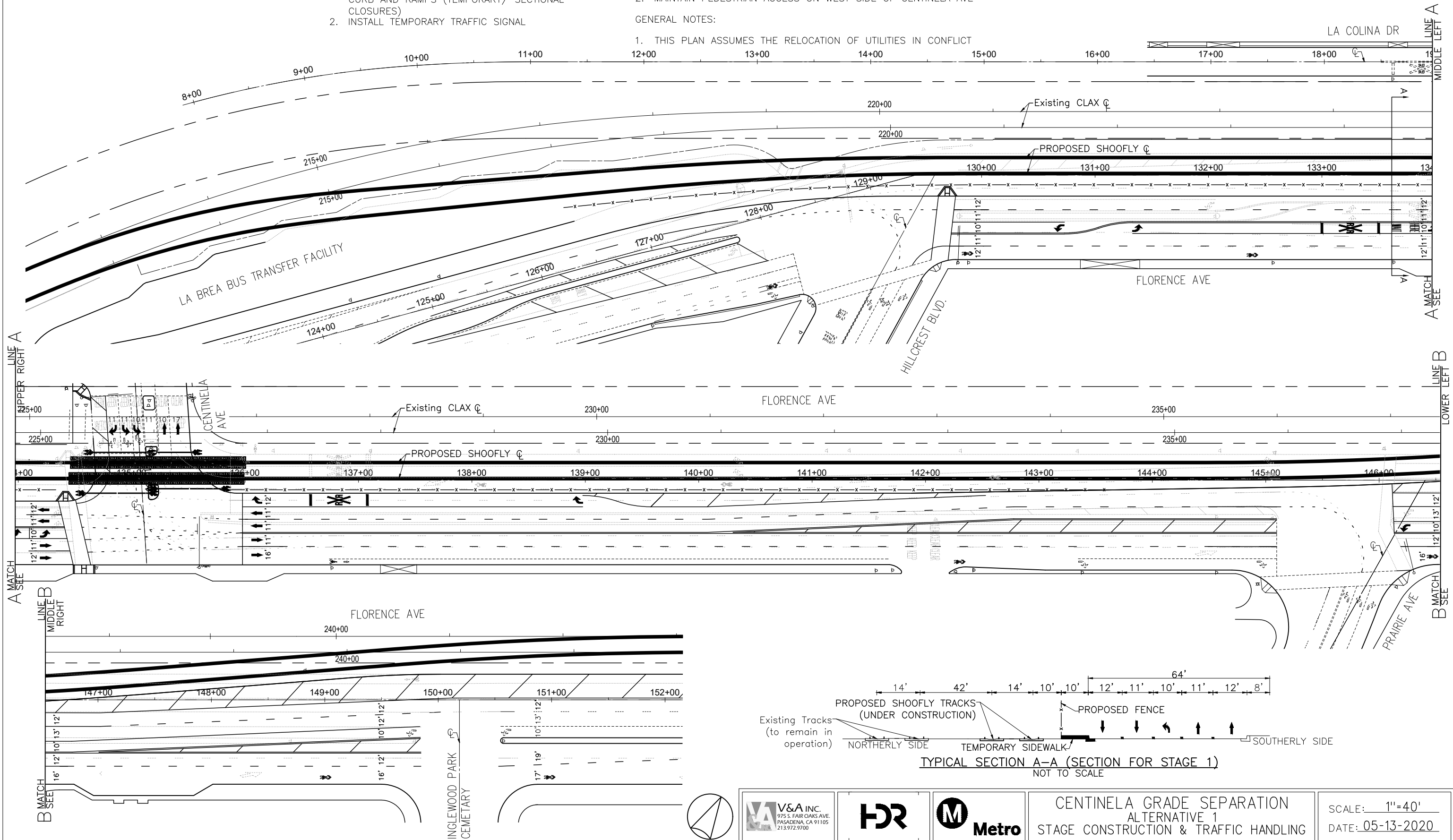
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$TIMES
 \$FILES
 \$PENCILS
 \$PLTDRVL\$

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 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION		SCALE: 1"=40'
			ALTERNATIVE 1		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL

STAGE 2 (9 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. TRACK CUTOVER TO SHOOFLY
2. REVENUE TESTING
3. DEMOLISH EXISTING TRACKS
4. CONSTRUCT APPROACH RETAINING WALLS AND BRIDGE

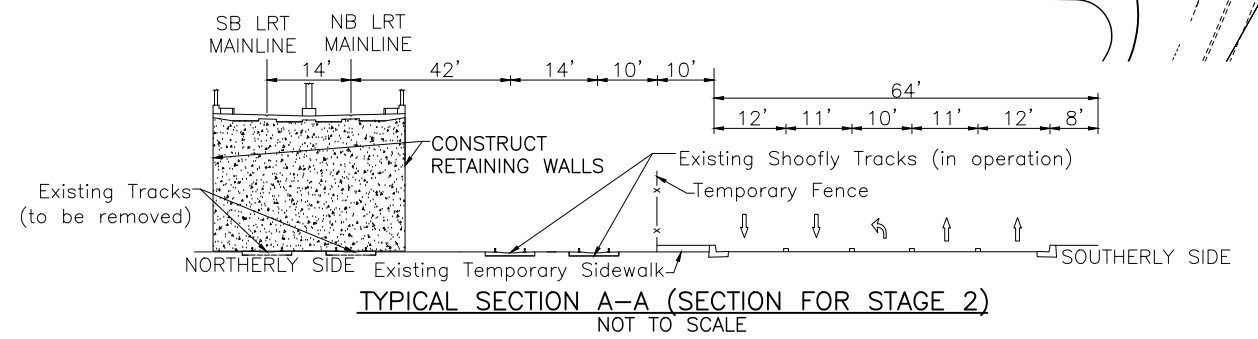
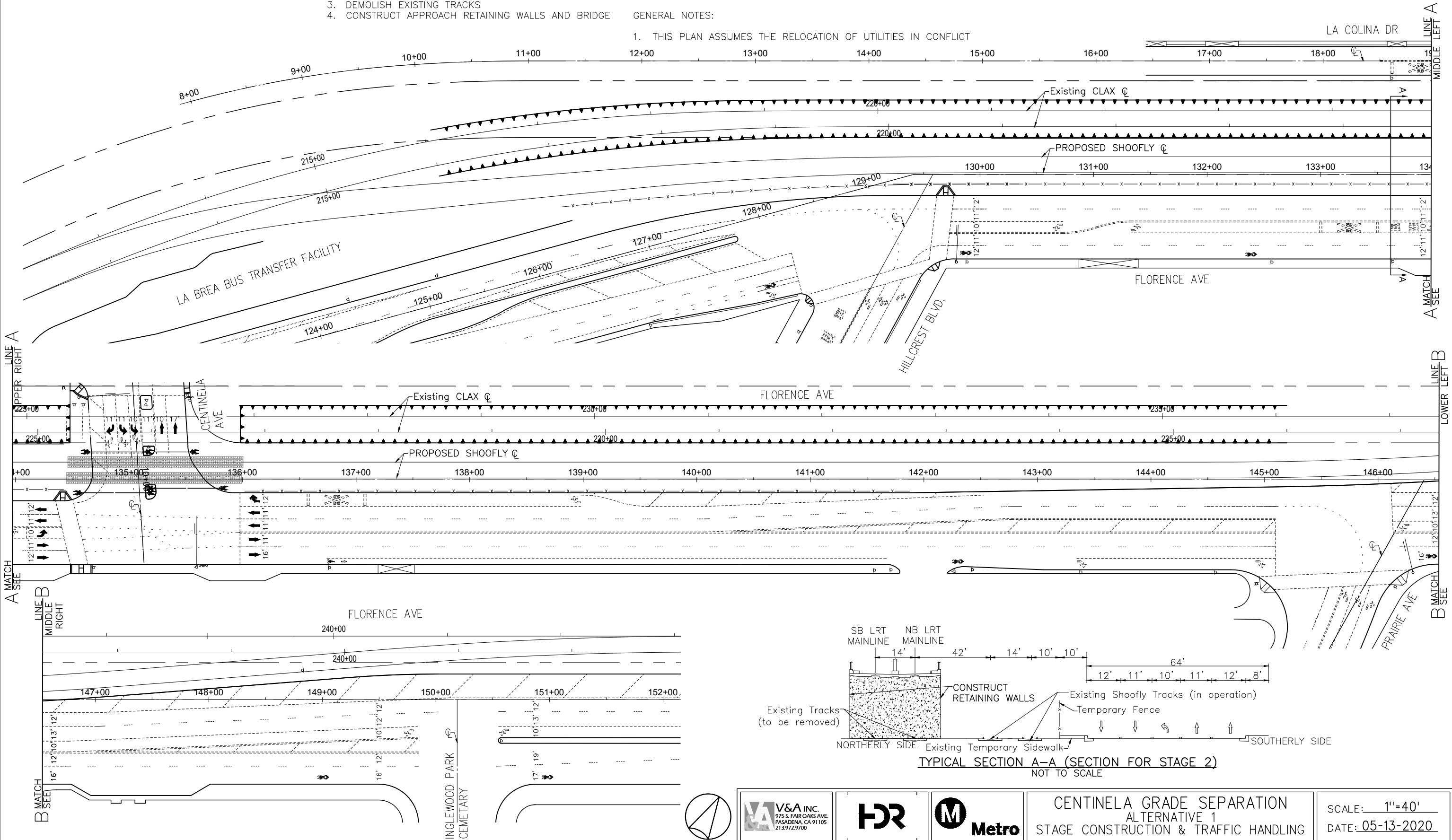
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 1	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

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STAGE 3 (9 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. INSTALL PRECAST CONCRETE BRIDGE GIRDERS DURING TEMPORARY/ WEEKEND CLOSURES
2. CONSTRUCT BRIDGE SUPERSTRUCTURE
3. CONSTRUCT TRACKWORK AND SYSTEMS

NOTES CONT.

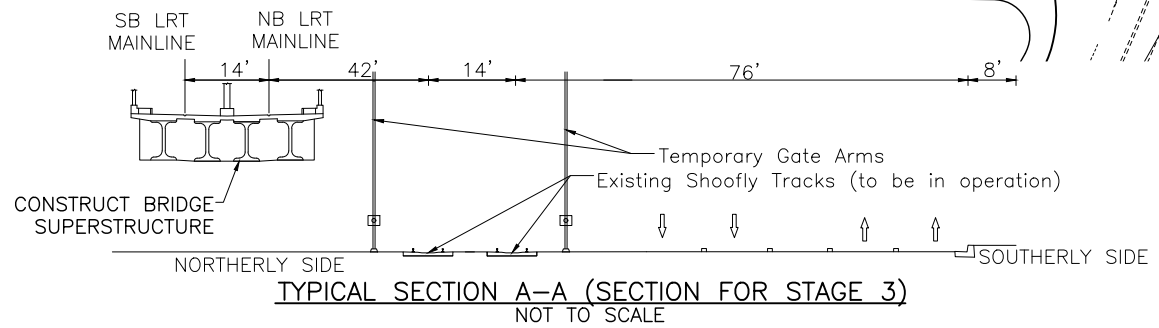
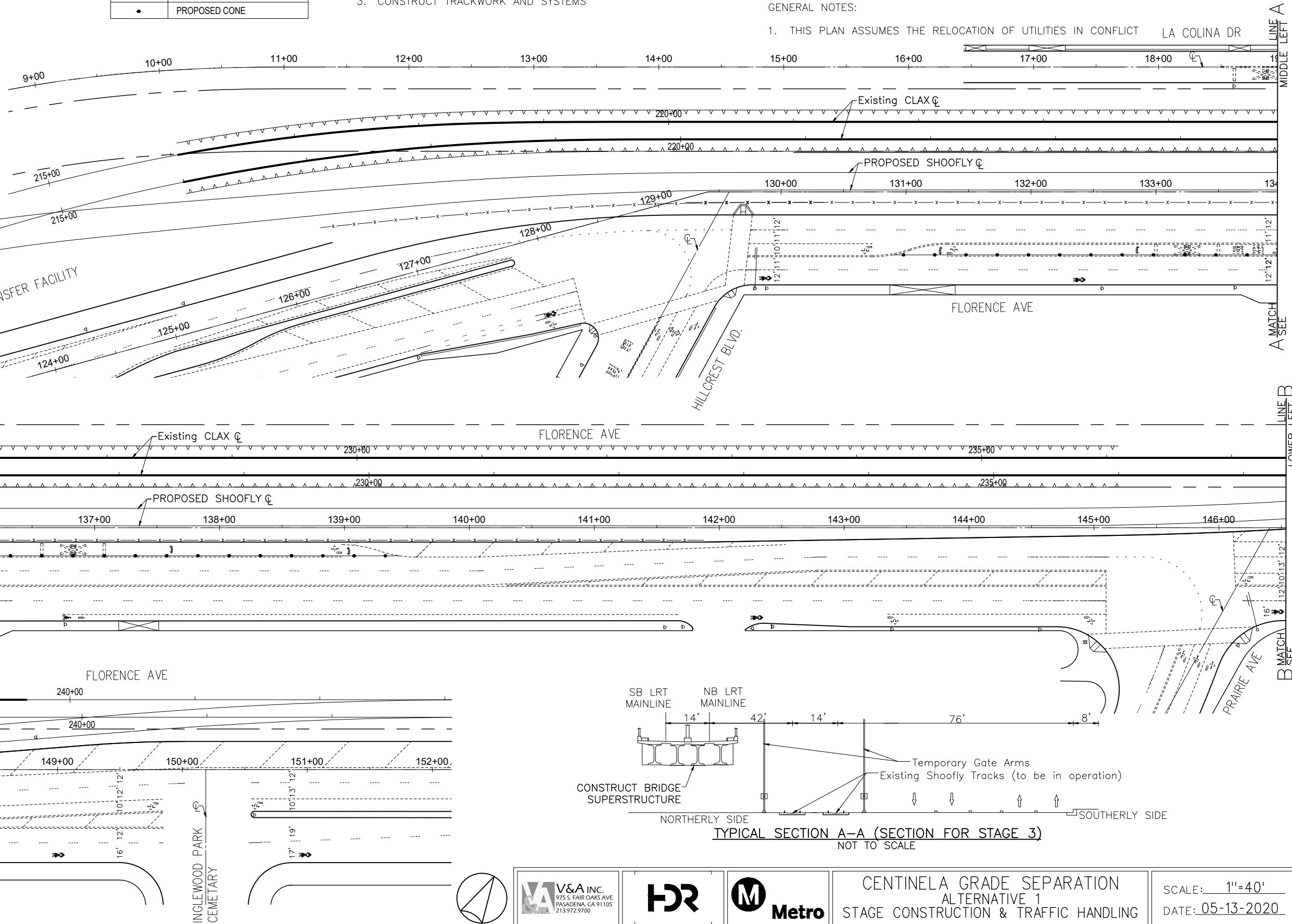
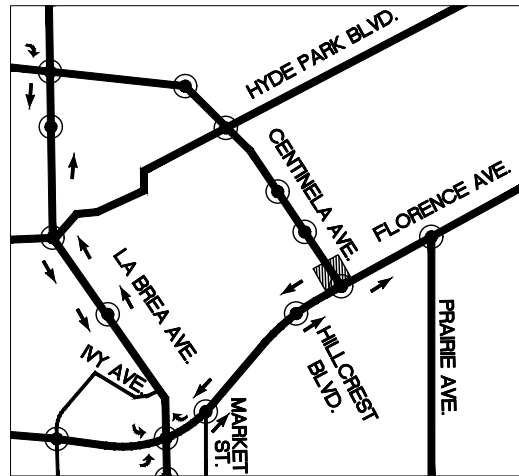
TRAFFIC HANDLING:

1. INTERMITTENT FULL CLOSURE OF CENTINELA AVE BETWEEN LA COLINA DR AND FLORENCE AVE FOR CONCRETE GIRDER INSTALLATION
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT WITH LA COLINA DR

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED TYPE III BARRICADE
	PROPOSED CONE



\$ TIMES
 \$ FILES
 \$ PENIBLS
 \$ PLDRVLS

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 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION		SCALE: 1"=40'
			ALTERNATIVE 1		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

STAGE 4 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. CONSTRUCT CUTOVER TO NEW CONSTRUCTION
2. CONSTRUCT REMAINING TRACKWORK AND SYSTEMS
3. REMOVE SHOOFLY TRACKS AND SIGNAL EQUIPMENT (TEMPORARY/ SECTIONAL CLOSURES)
4. REVENUE TESTING
5. CONSTRUCT CURB RAMP FOR RELOCATED CROSSWALK
6. RESTORE ROADWAY PAVEMENT
7. INSTALL NEW TRAFFIC SIGNAL
8. MEDIAN RESTORATION ON FLORENCE AVE AND CENTINELA AVE
9. RESTORE STRIPING

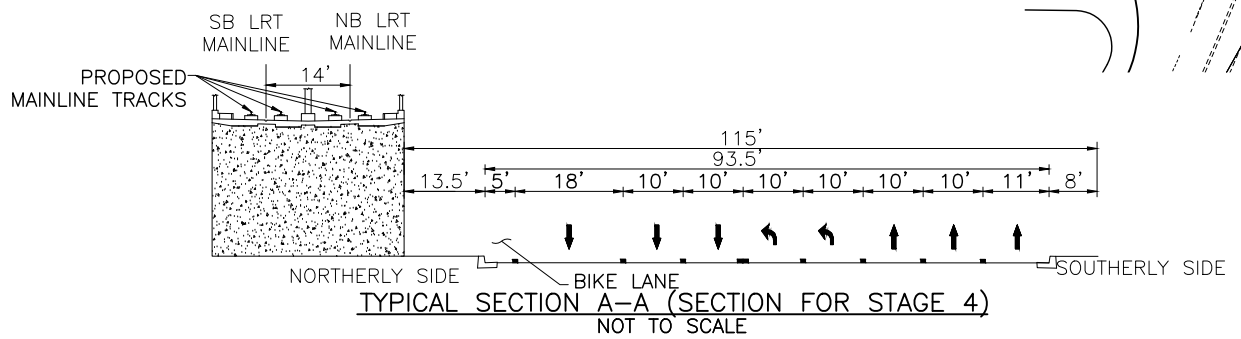
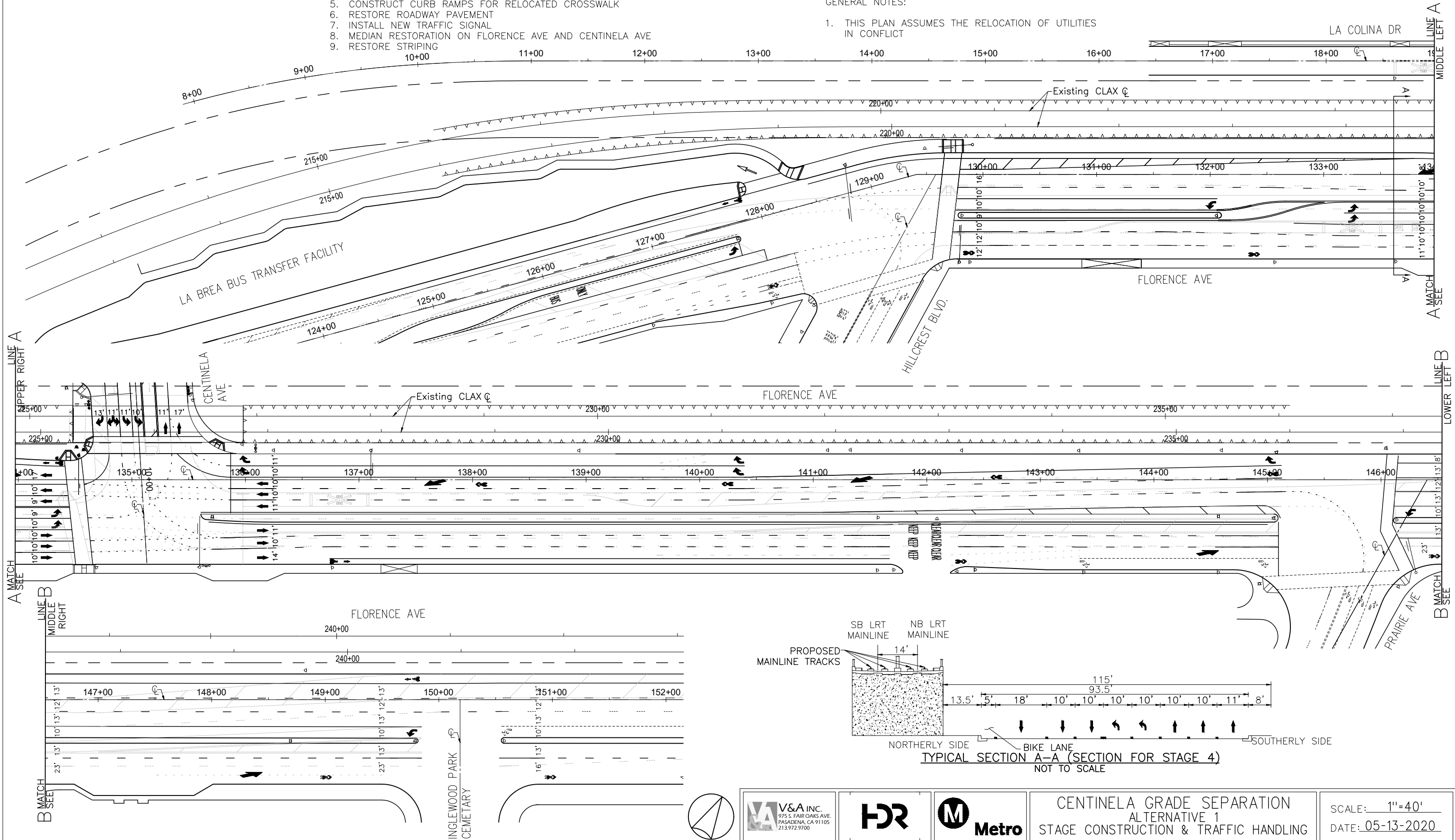
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$TIMES
 \$FILES
 \$PENCILS
 \$PLTDRAWLS

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 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 1	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL

STAGE 1 (9 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. DEMOLISH EXISTING TRACKS
2. CONSTRUCT APPROACH RETAINING WALLS AND BRIDGE ABUTMENT

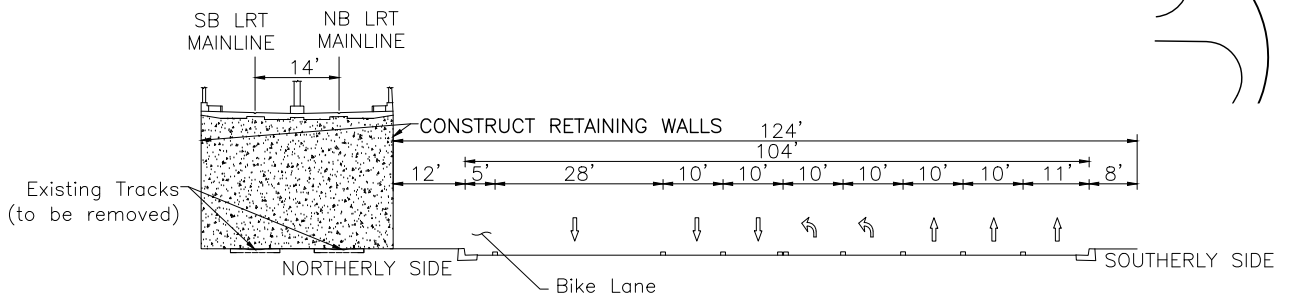
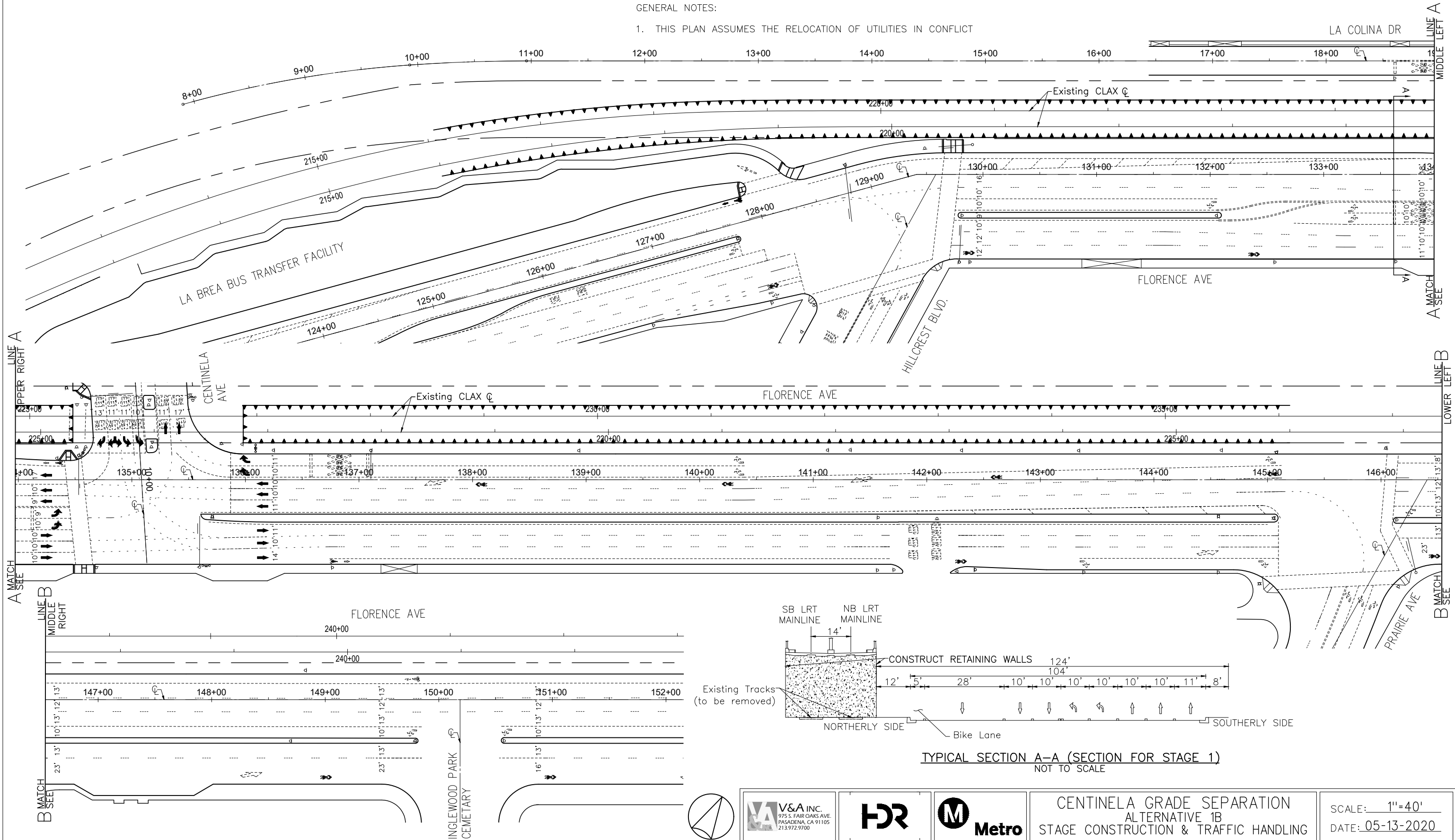
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



TYPICAL SECTION A-A (SECTION FOR STAGE 1)
NOT TO SCALE

\$TIMES
 \$FILES
 \$PENCILS
 \$PLTDRAWLS

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 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION		SCALE: 1"=40'
			ALTERNATIVE 1B		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

STAGE 2 (9 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. INSTALL PRECAST CONCRETE BRIDGE GIRDERS DURING TEMPORARY/ WEEKEND CLOSURES
2. CONSTRUCT BRIDGE SUPERSTRUCTURE
3. CONSTRUCT TRACKWORK AND SYSTEMS

NOTES CONT.

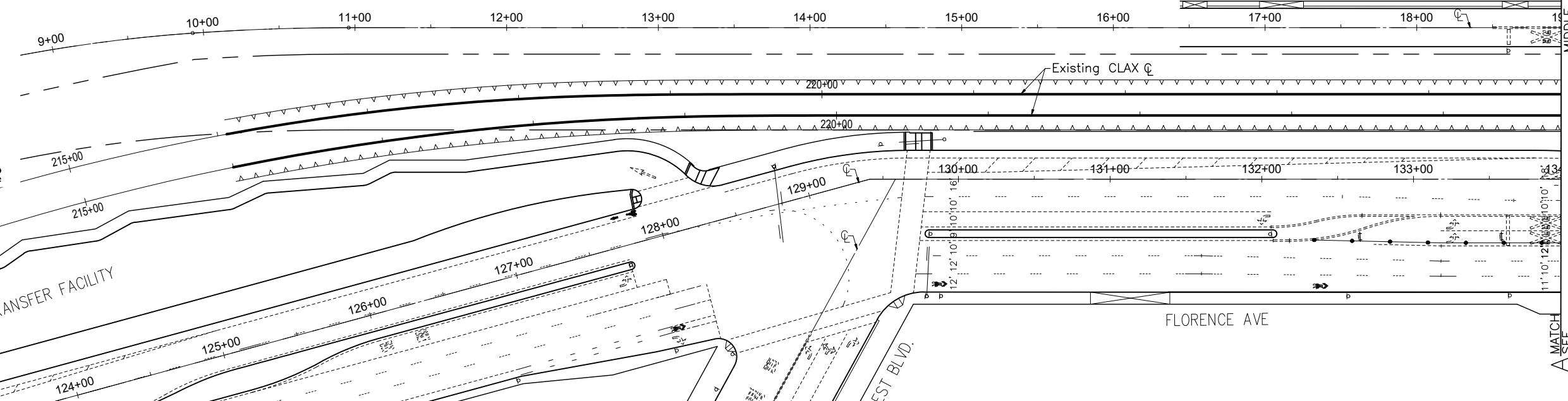
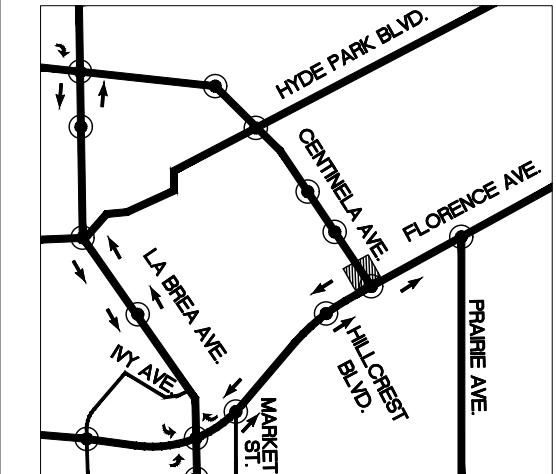
TRAFFIC HANDLING:

1. INTERMITTENT FULL CLOSURE OF CENTINELA AVE BETWEEN LA COLINA DR AND FLORENCE AVE FOR CONCRETE GIRDER INSTALLATION
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

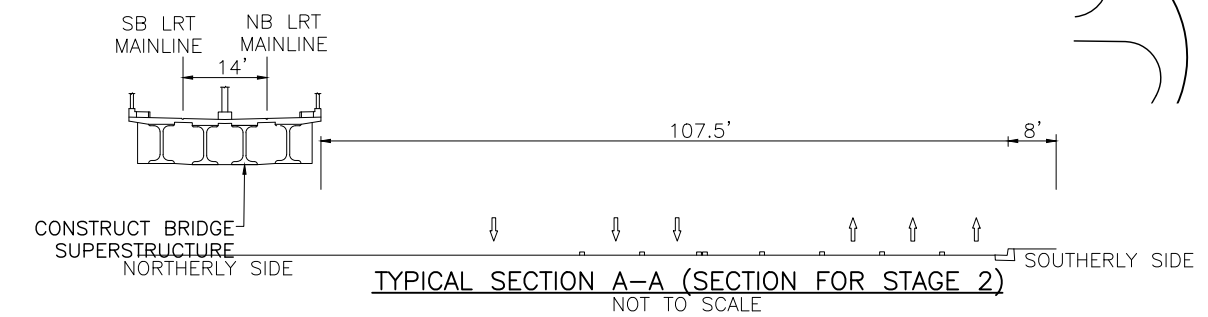
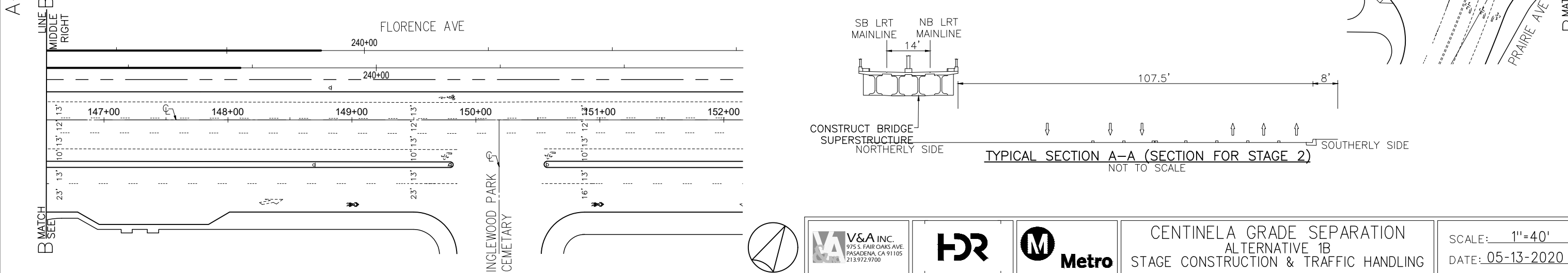
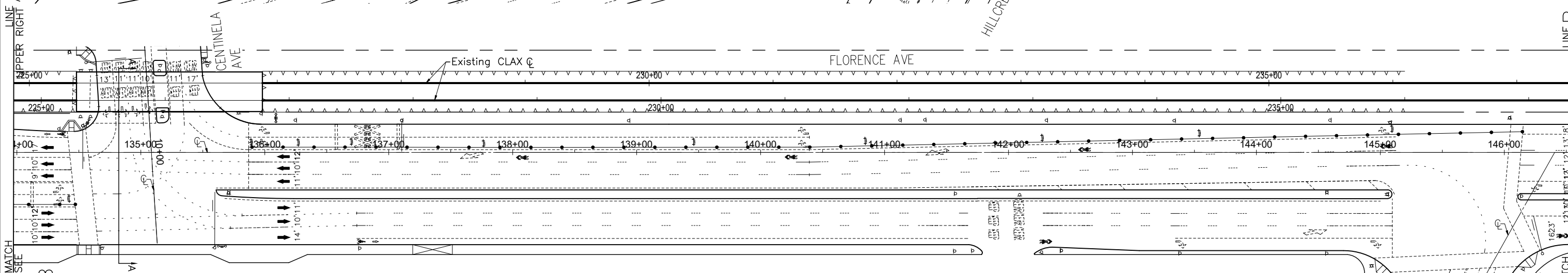
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT WITH LA COLINA DR

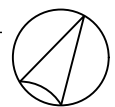
LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED TYPE III BARRICADE
	PROPOSED CONE



TEMPORARY/ WEEKEND CLOSURE DETOUR
NOT TO SCALE



\$TIMES
 \$FILES
 \$PENCILS
 \$PLTDRVL\$



V&A INC.
975 S. FAIR OAKS AVE.
PASADENA, CA 91105
213.972.9700



CENTINELA GRADE SEPARATION
ALTERNATIVE 1B
STAGE CONSTRUCTION & TRAFFIC HANDLING

SCALE: 1"=40'
DATE: 05-13-2020

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

STAGE 3 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. REMOVE GRADE CROSSING PANELS
2. TRACK CUTOVER TO FINAL ALIGNMENT
3. REVENUE TESTING
4. CONSTRUCT CURB RAMP FOR RELOCATED CROSSWALK
5. RESTORE ROADWAY PAVEMENT
6. INSTALL NEW TRAFFIC SIGNAL
7. RESTORE STRIPING

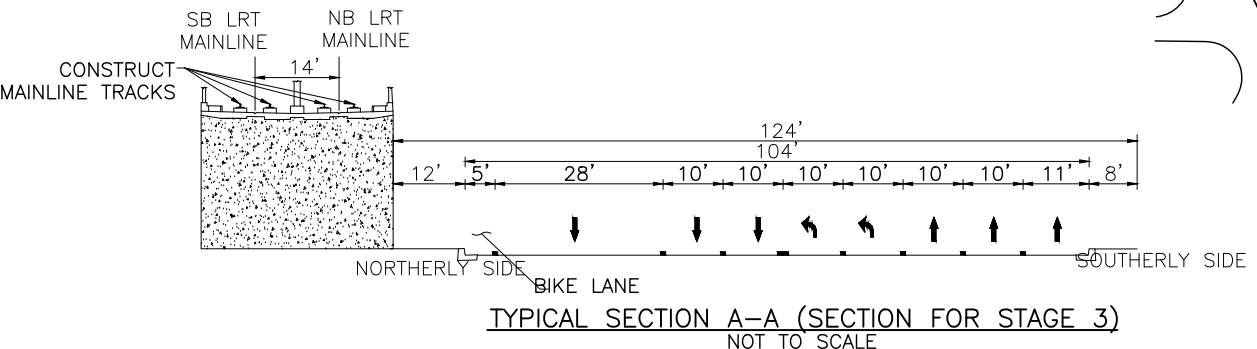
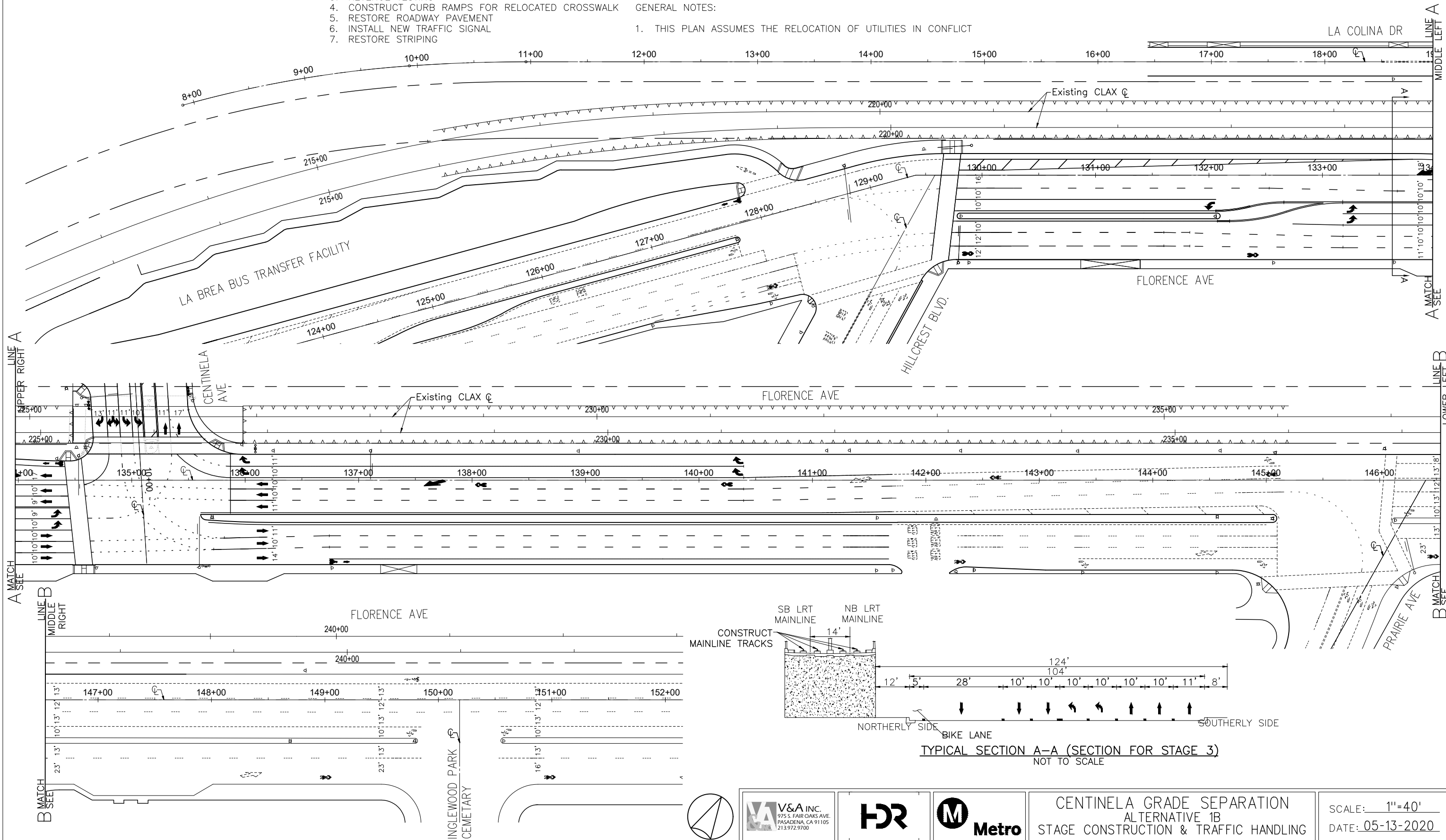
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$ TIMES
 \$ FILES
 \$ PENIBLS
 \$ PLDRVLS

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 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION ALTERNATIVE 1B STAGE CONSTRUCTION & TRAFFIC HANDLING		SCALE: 1"=40'
					DATE: 05-13-2020

LEGEND	
	DIRECTION OF TRAVEL

STAGE 1 (6 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. CONSTRUCT SHOOFLY, MEDIANS, GATES, TEMPORARY CURB AND RAMPS (TEMPORARY/SECTIONAL CLOSURES)
2. INSTALL TEMPORARY TRAFFIC SIGNAL

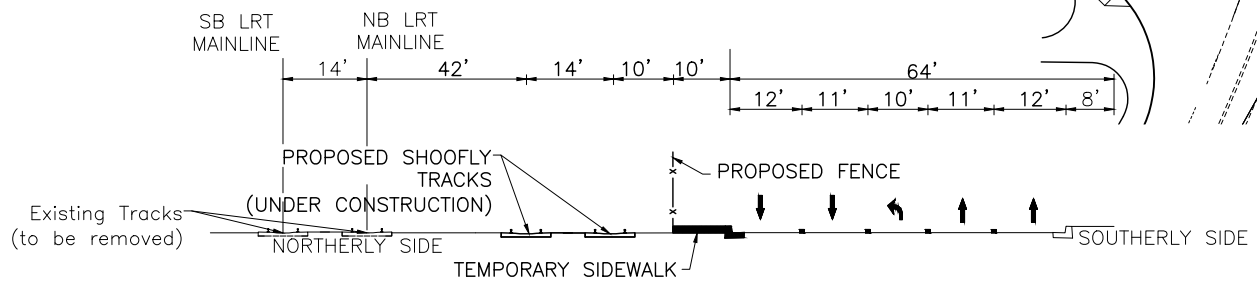
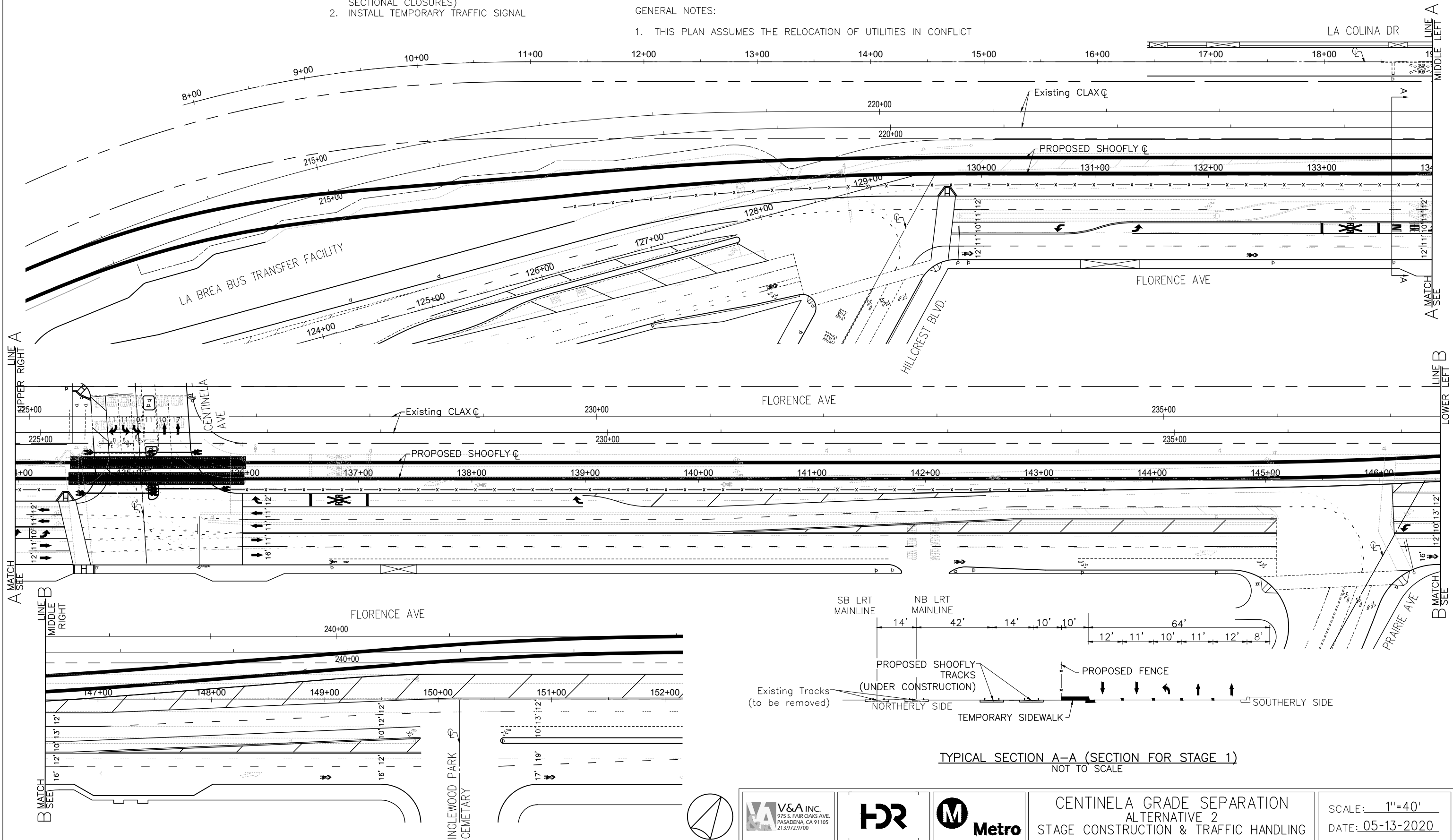
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



TYPICAL SECTION A-A (SECTION FOR STAGE 1)
NOT TO SCALE

 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 2	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

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LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL

STAGE 2 (12 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. TRACK CUTOVER TO SHOOFLY TRACK
2. DEMOLISH EXISTING TRACK
3. CONSTRUCT APPROACH RETAINING WALLS AND BRIDGE ABUTMENT

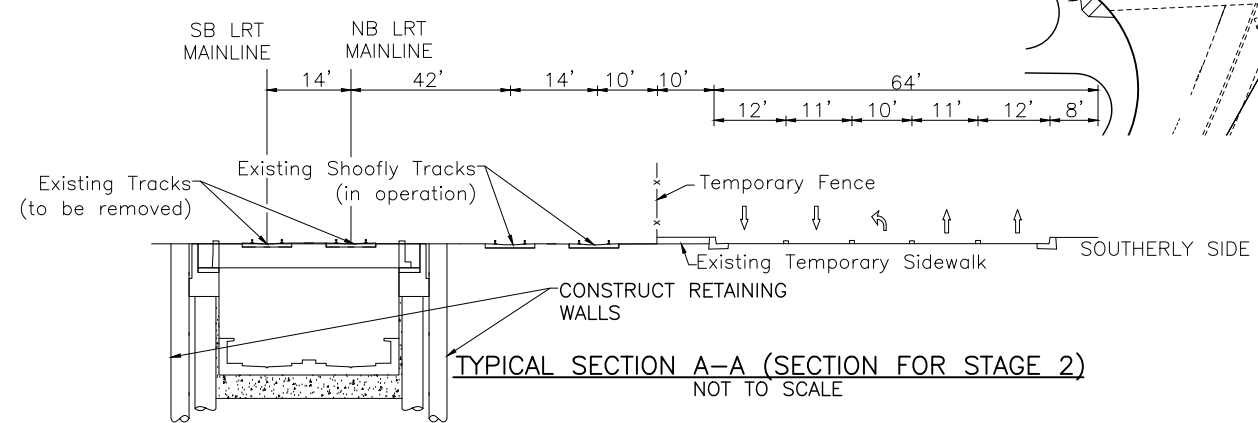
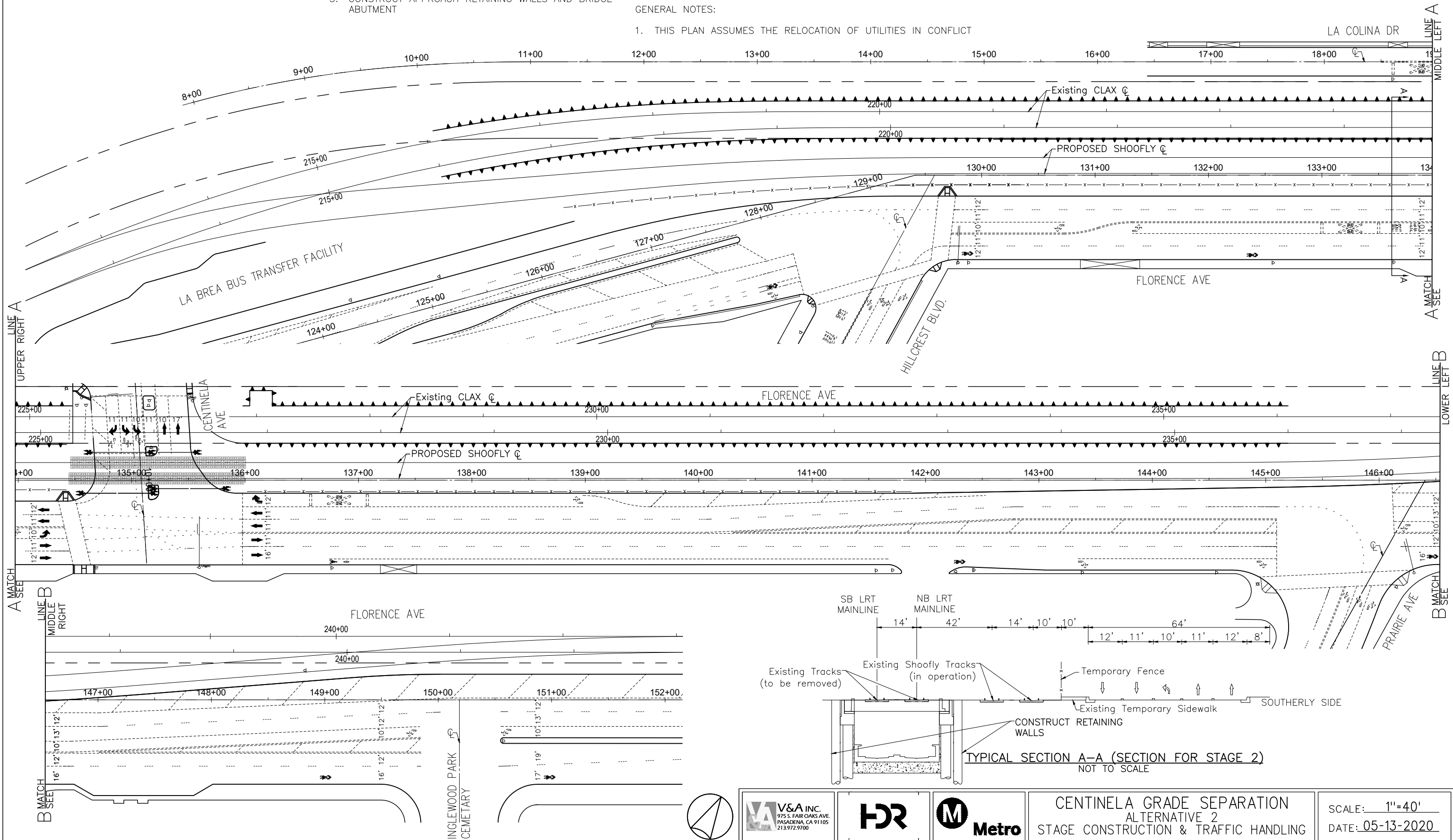
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



<p>V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700</p>			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 2	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA

STAGE 3 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. REMOVE GRADE CROSSING PANELS (PREEXISTING CROSSING BY CLAX CONSTRUCTION)
2. CENTER CIDH PILE INSTALLATION
3. INSTALL TEMPORARY DECKING

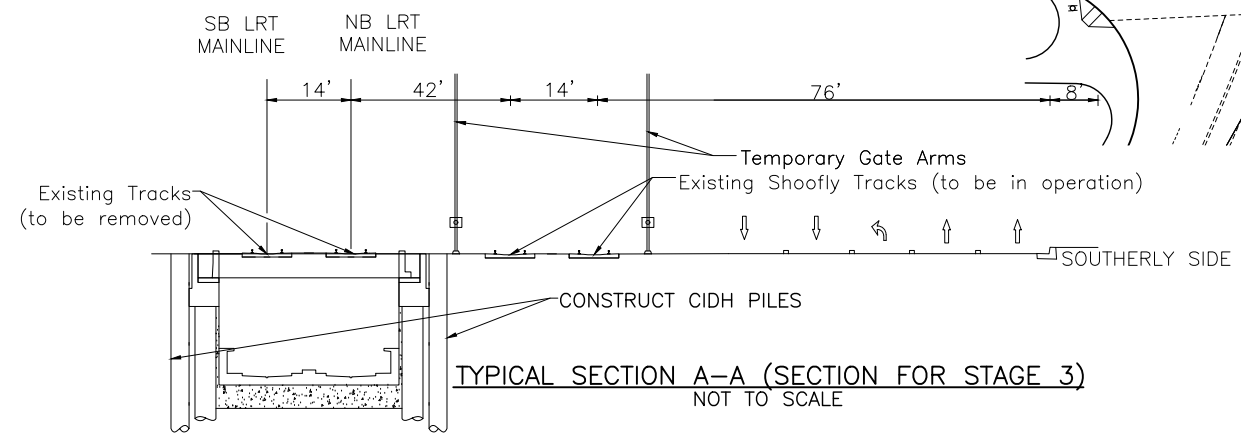
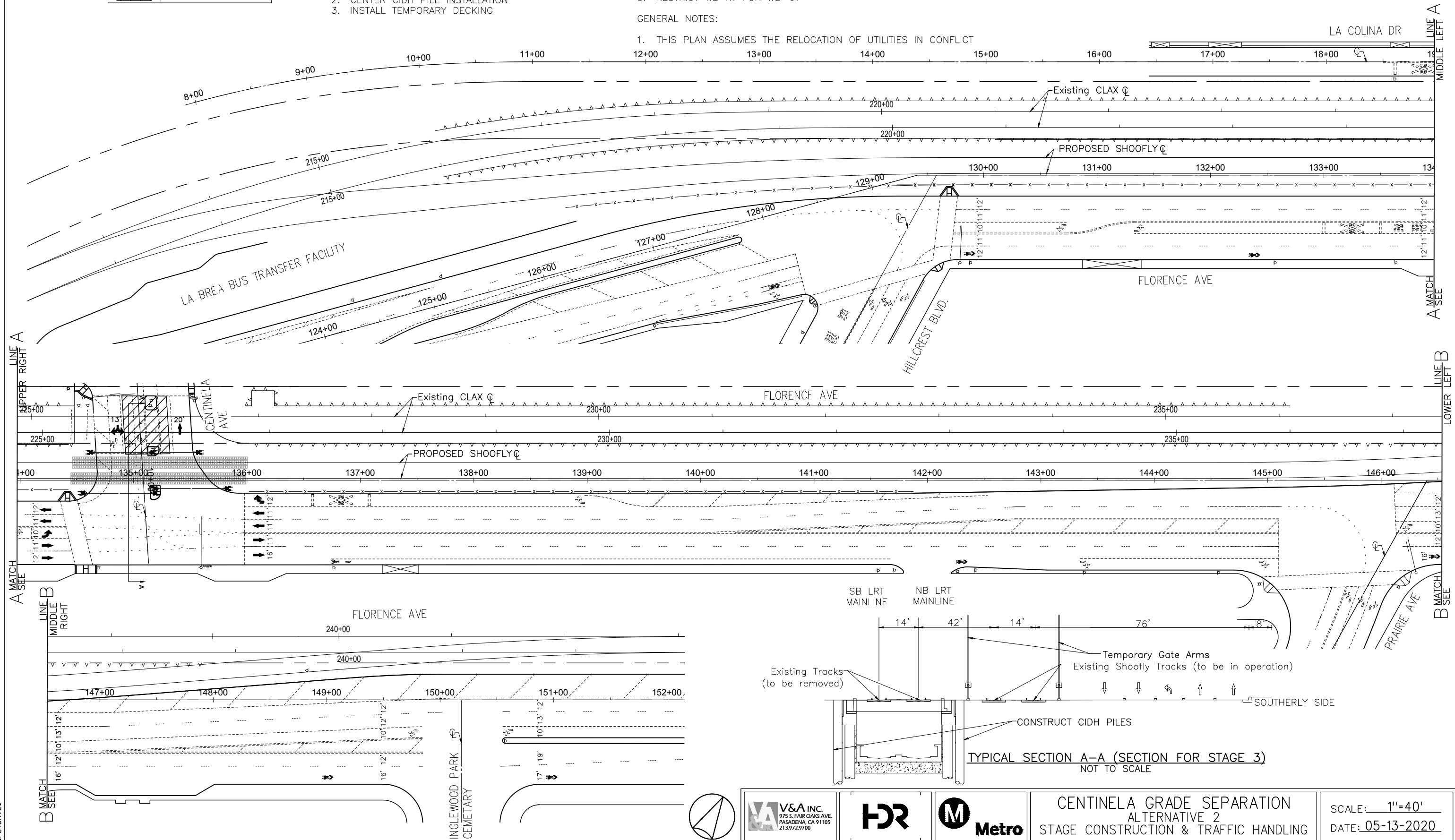
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE
3. RESTRICT WB RT FOR WB-67

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



<p>V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700</p>			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 2	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

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LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA

STAGE 4 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. REMOVE GRADE CROSSING PANELS (PREEXISTING CROSSING BY CLAX CONSTRUCTION)
2. WEST SIDE CIDH PILE INSTALLATION
3. INSTALL TEMPORARY DECKING

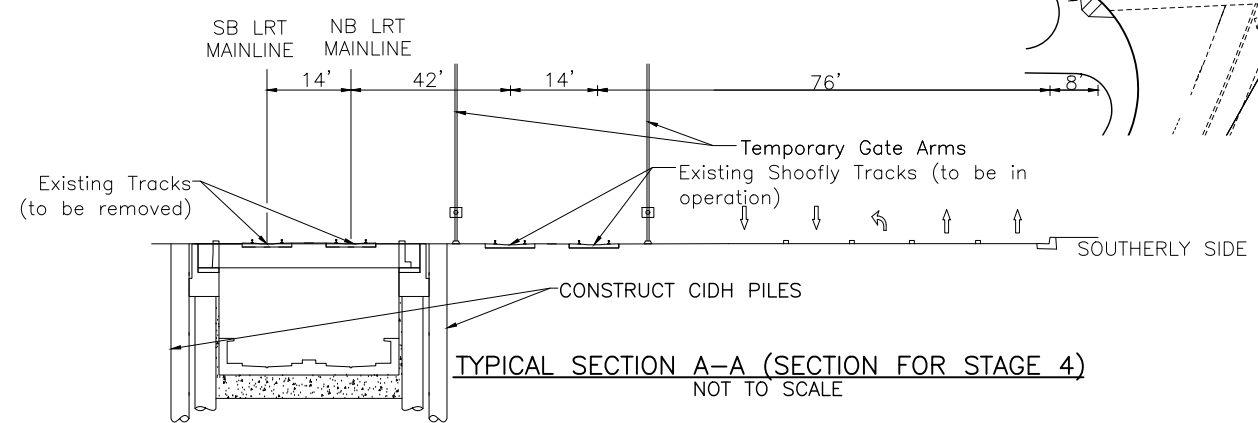
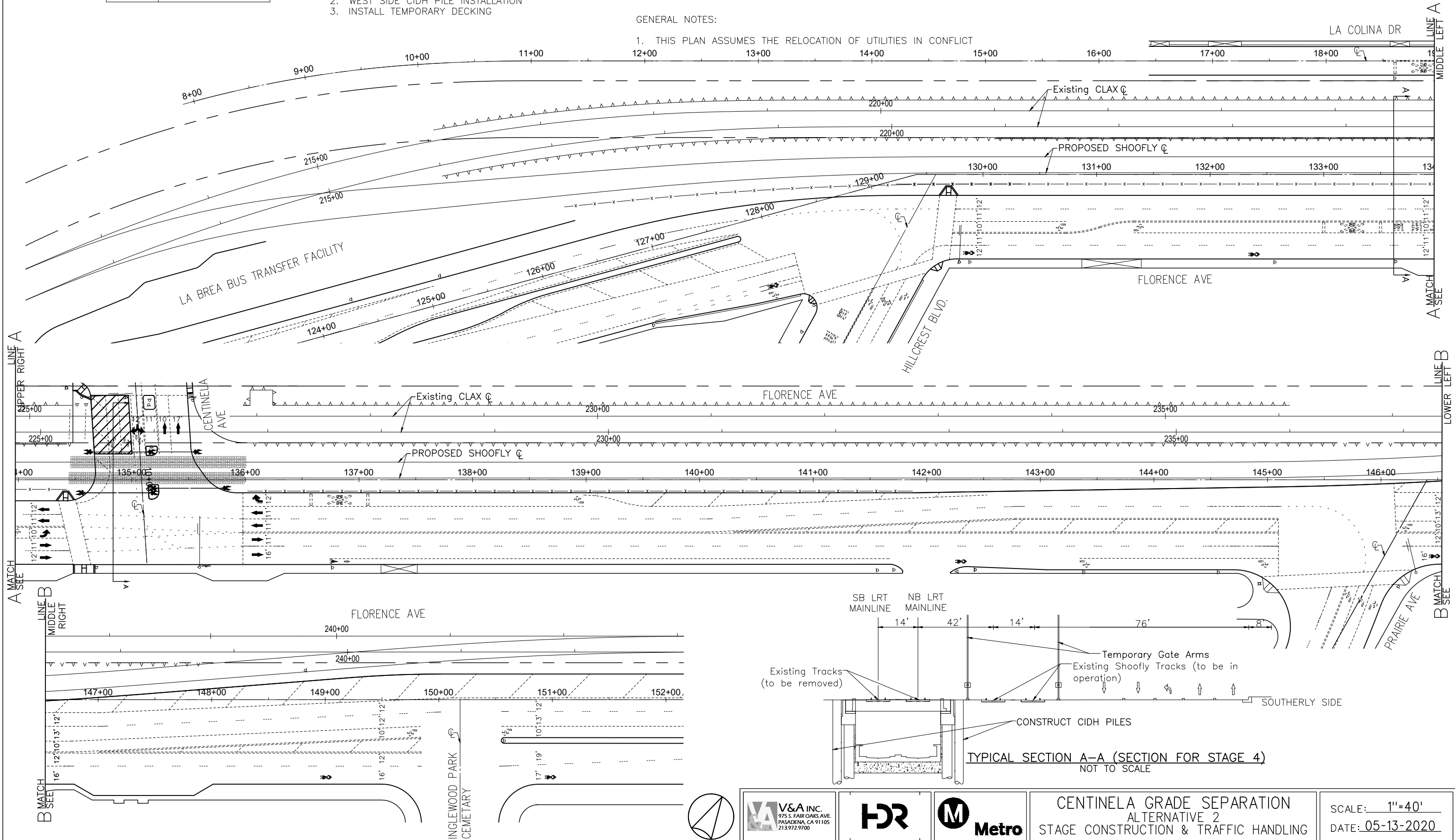
NOTES CONT.

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION	
			ALTERNATIVE 2	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

STAGE 5 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. REMOVE GRADE CROSSING PANELS (PREEXISTING CROSSING BY CLAX CONSTRUCTION)
2. EAST SIDE CIDH PILE INSTALLATION
3. INSTALL TEMPORARY DECKING

NOTES CONT.

TRAFFIC HANDLING:

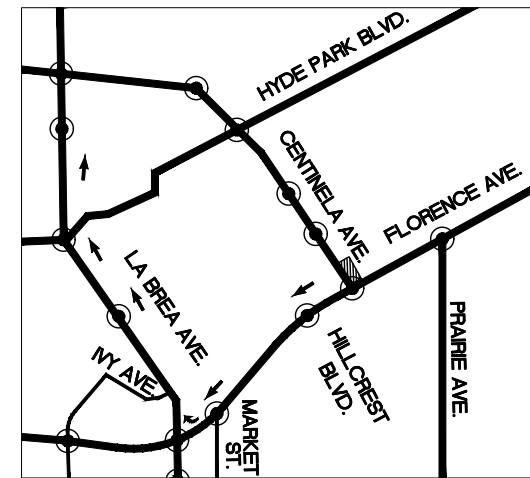
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. TEMPORARY CLOSURE OF NB CENTINELA AVE BETWEEN FLORENCE AVE AND LA COLINA DR
3. RESTRICT WB RT (ALL VEHICLES)
4. RESTRICT EB LT (ALL VEHICLES)
5. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

NOTES CONT.

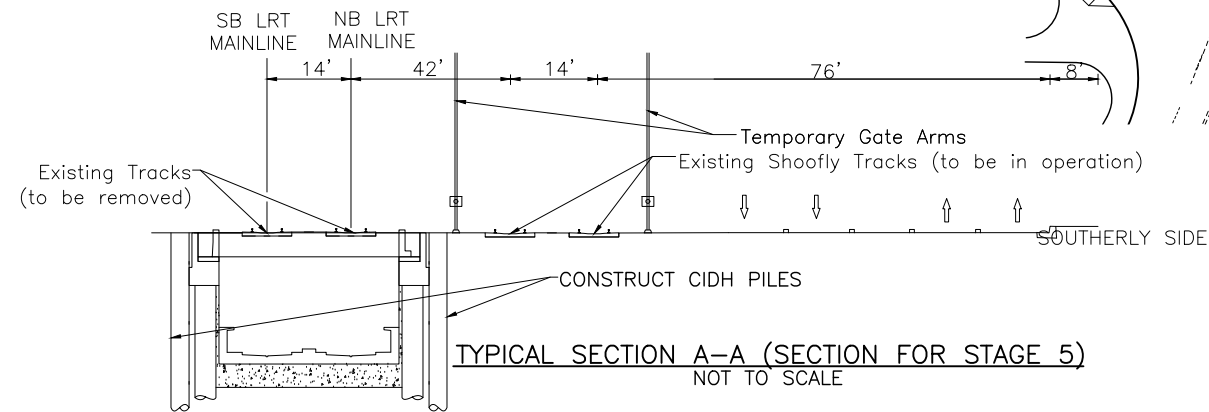
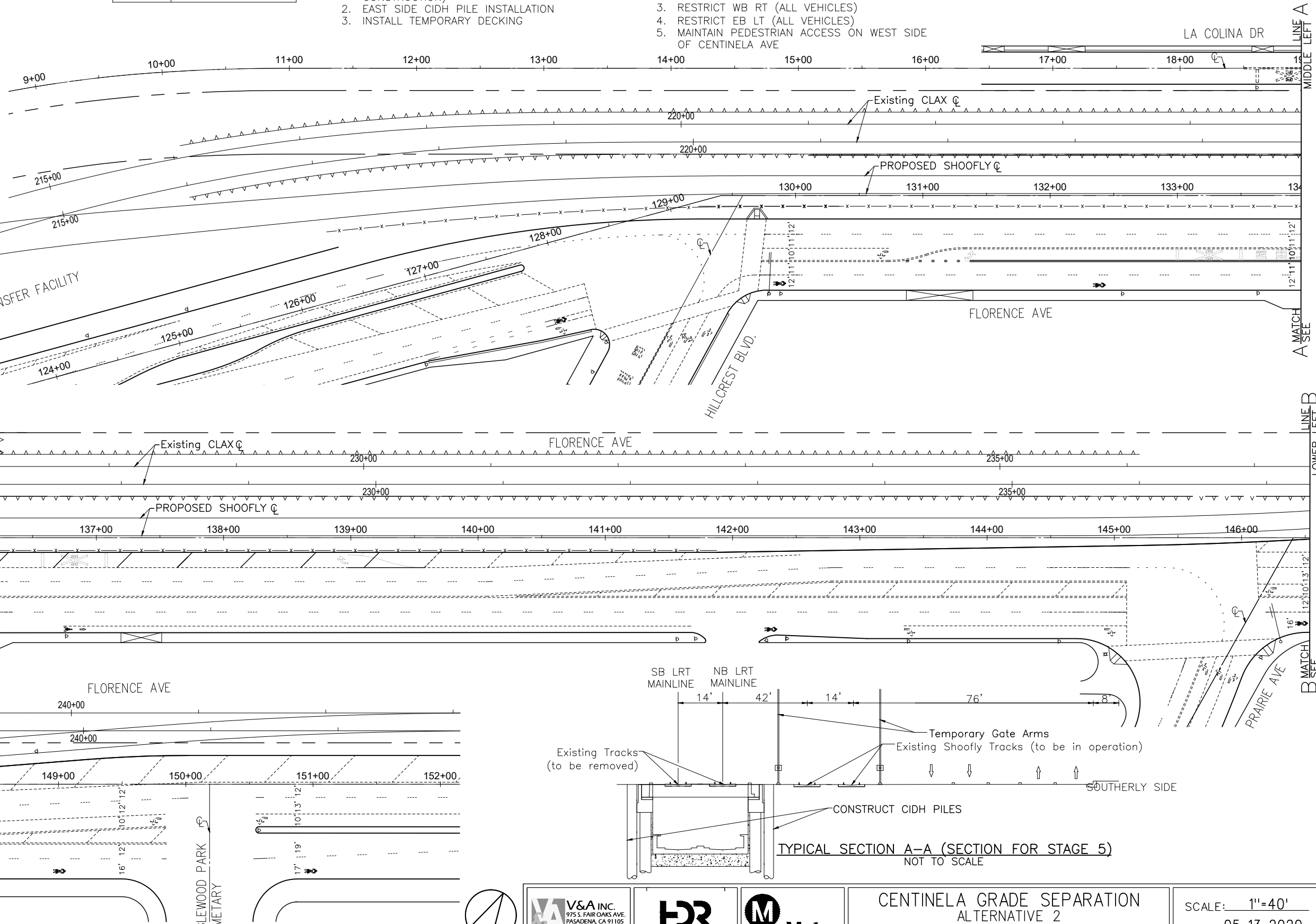
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT

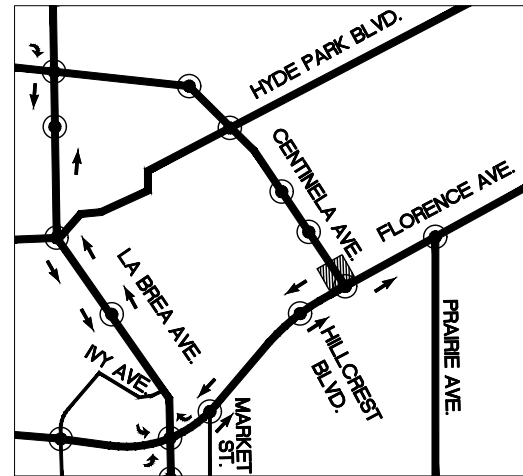
LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA



NB CENTINELA AVE CLOSURE DETOUR
NOT TO SCALE



 V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700			CENTINELA GRADE SEPARATION ALTERNATIVE 2 STAGE CONSTRUCTION & TRAFFIC HANDLING		SCALE: 1"=40'
					DATE: 05-13-2020



LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED TYPE III BARRICADE
	PROPOSED CONE
	PROPOSED WORK AREA

STAGE 6 (INTERMITTENT 1 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. INSTALL PERMANENT DECKING

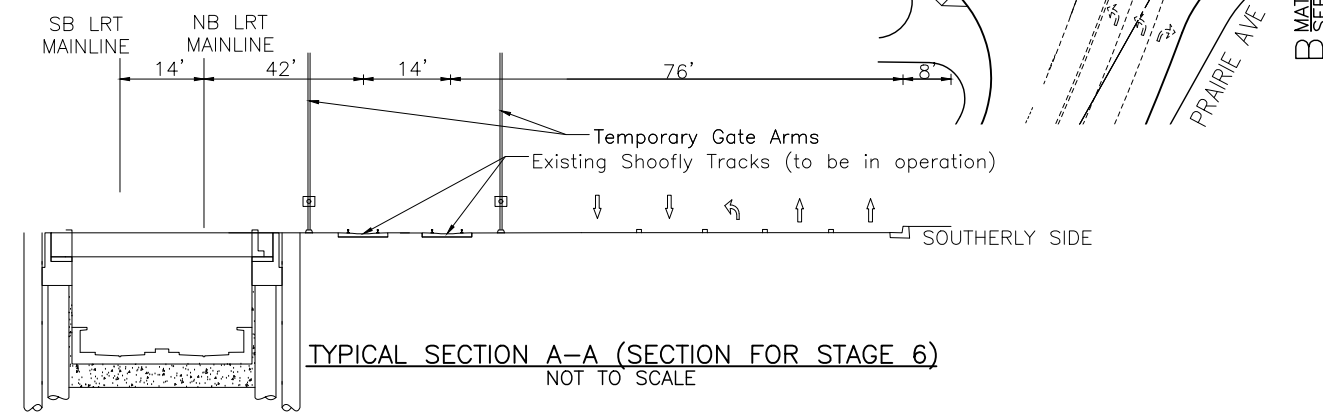
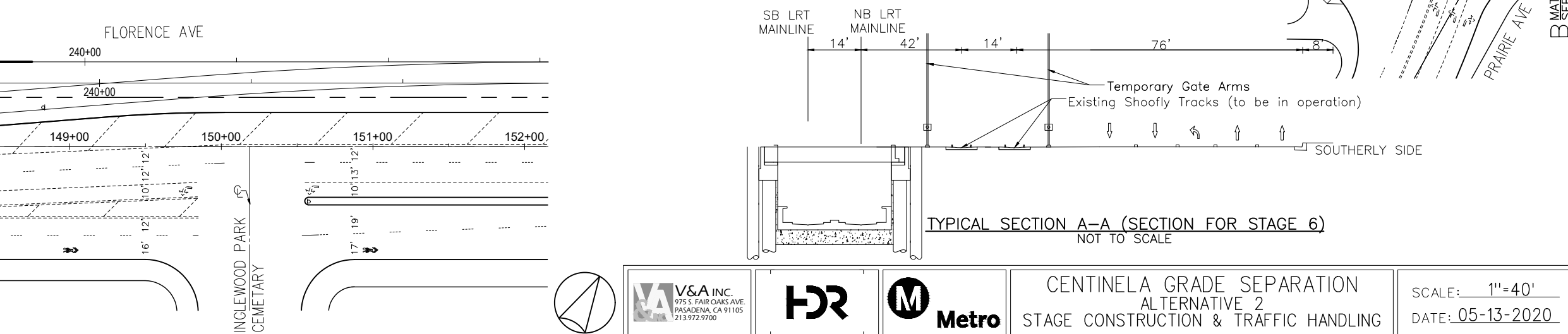
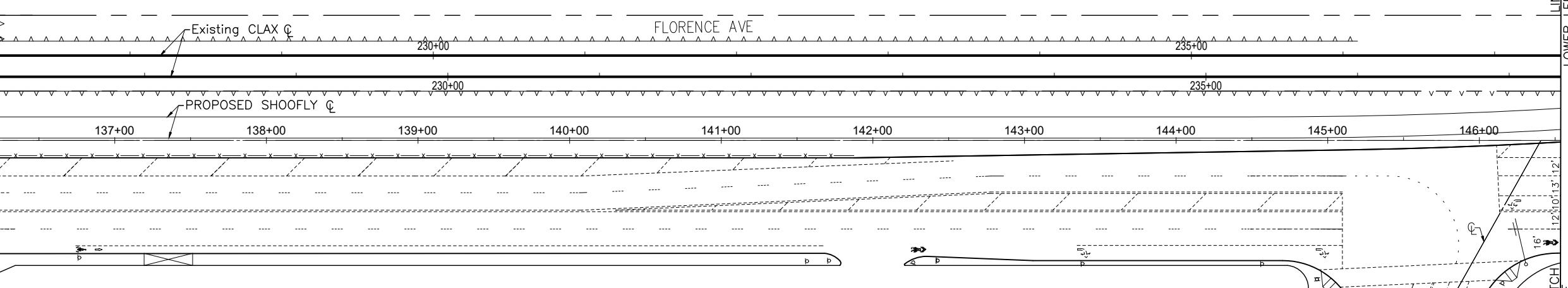
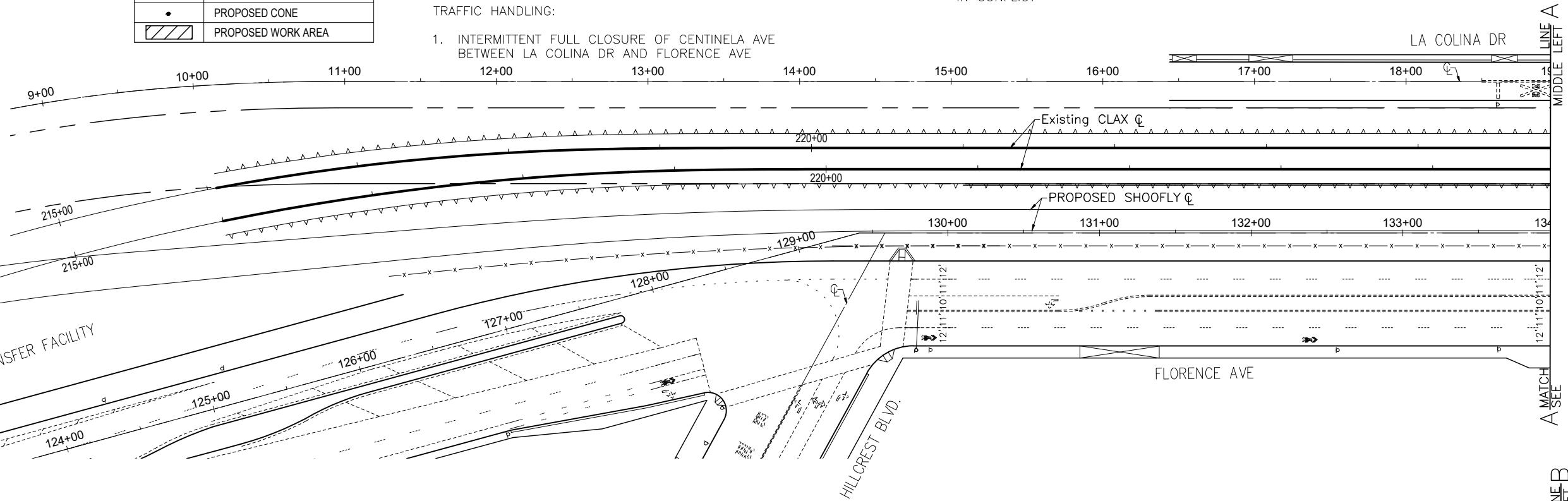
TRAFFIC HANDLING:

1. INTERMITTENT FULL CLOSURE OF CENTINELA AVE BETWEEN LA COLINA DR AND FLORENCE AVE

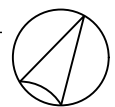
NOTES CONT.

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



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 213.972.9700

**CENTINELA GRADE SEPARATION
 ALTERNATIVE 2
 STAGE CONSTRUCTION & TRAFFIC HANDLING**

SCALE: 1"=40'
 DATE: 05-13-2020

STAGE 7 (5 MONTH DURATION):

NOTES CONT.

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

CONSTRUCTION ACTIVITIES:

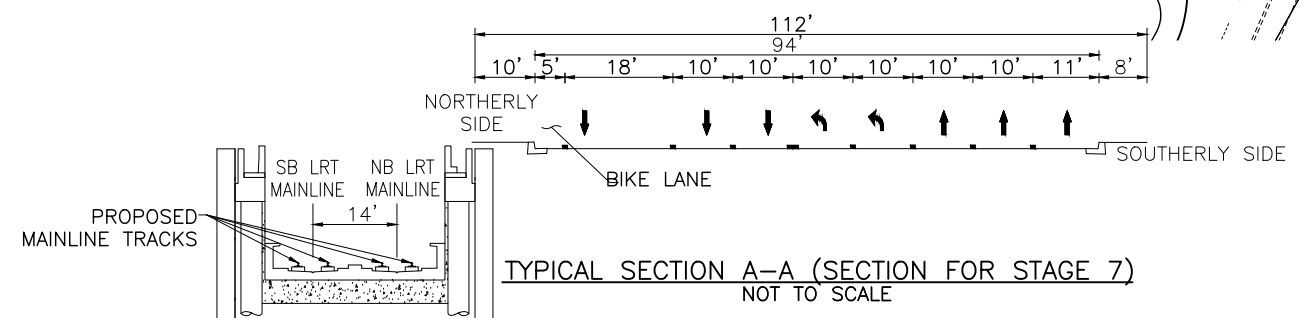
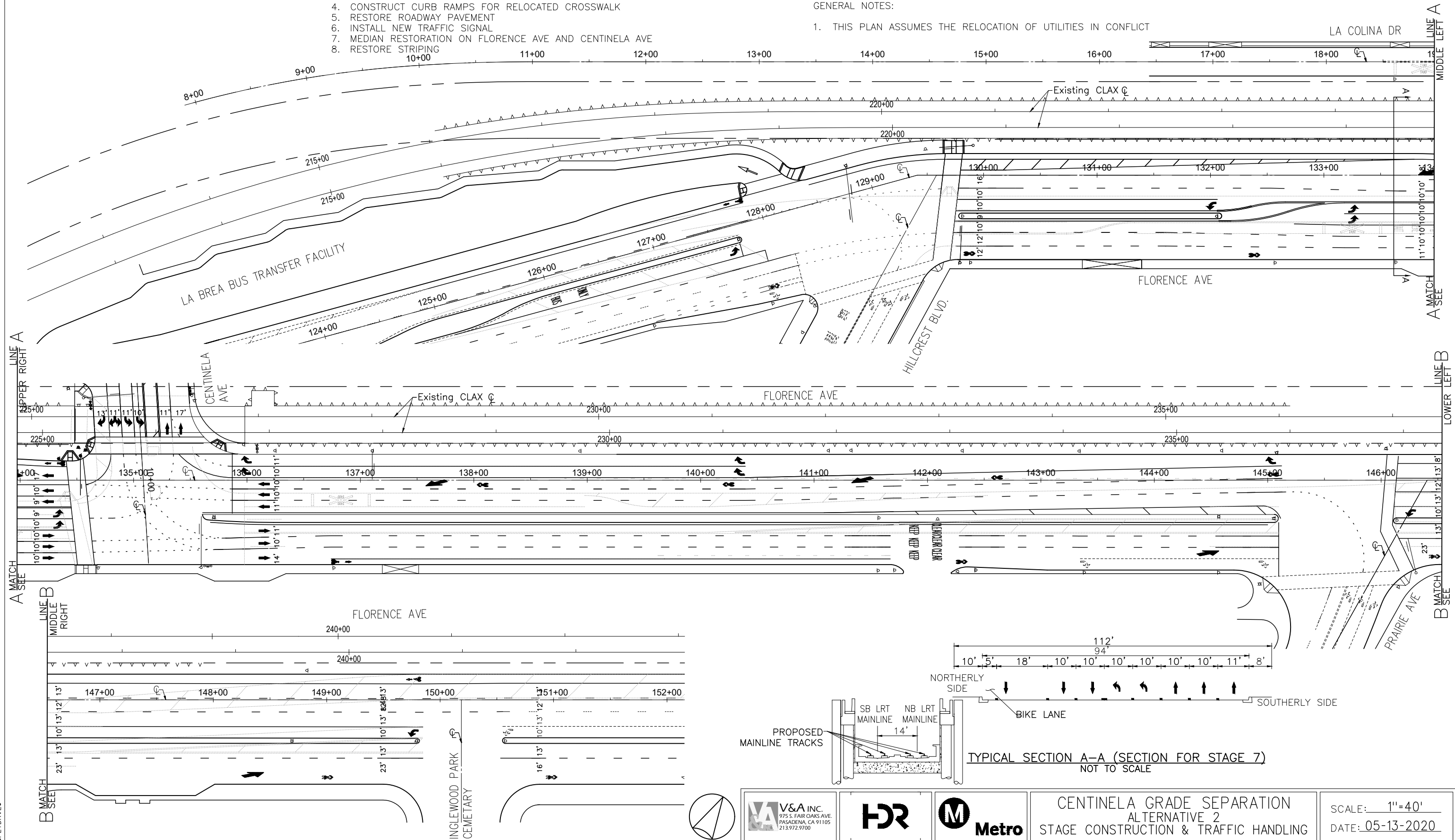
1. CONSTRUCT REMAINING TRACKWORK AND SYSTEMS
2. REMOVE SHOOFLY TRACKS AND SIGNAL EQUIPMENT (TEMPORARY/ SECTIONAL CLOSURES)
3. REVENUE TESTING
4. CONSTRUCT CURB RAMP FOR RELOCATED CROSSWALK
5. RESTORE ROADWAY PAVEMENT
6. INSTALL NEW TRAFFIC SIGNAL
7. MEDIAN RESTORATION ON FLORENCE AVE AND CENTINELA AVE
8. RESTORE STRIPING

TRAFFIC HANDLING:

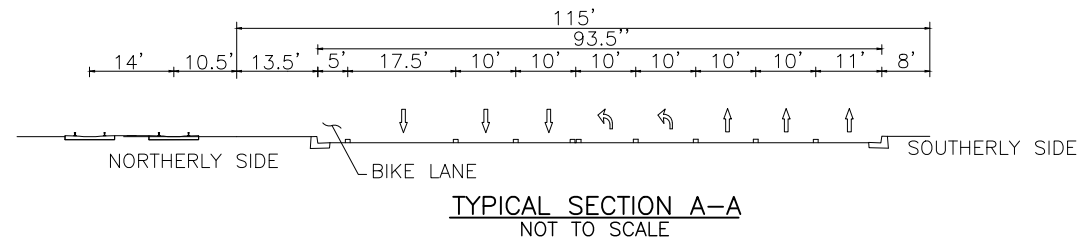
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



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			ALTERNATIVE 2		
			STAGE CONSTRUCTION & TRAFFIC HANDLING		



LEGEND	
	DIRECTION OF TRAVEL

STAGE 1 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

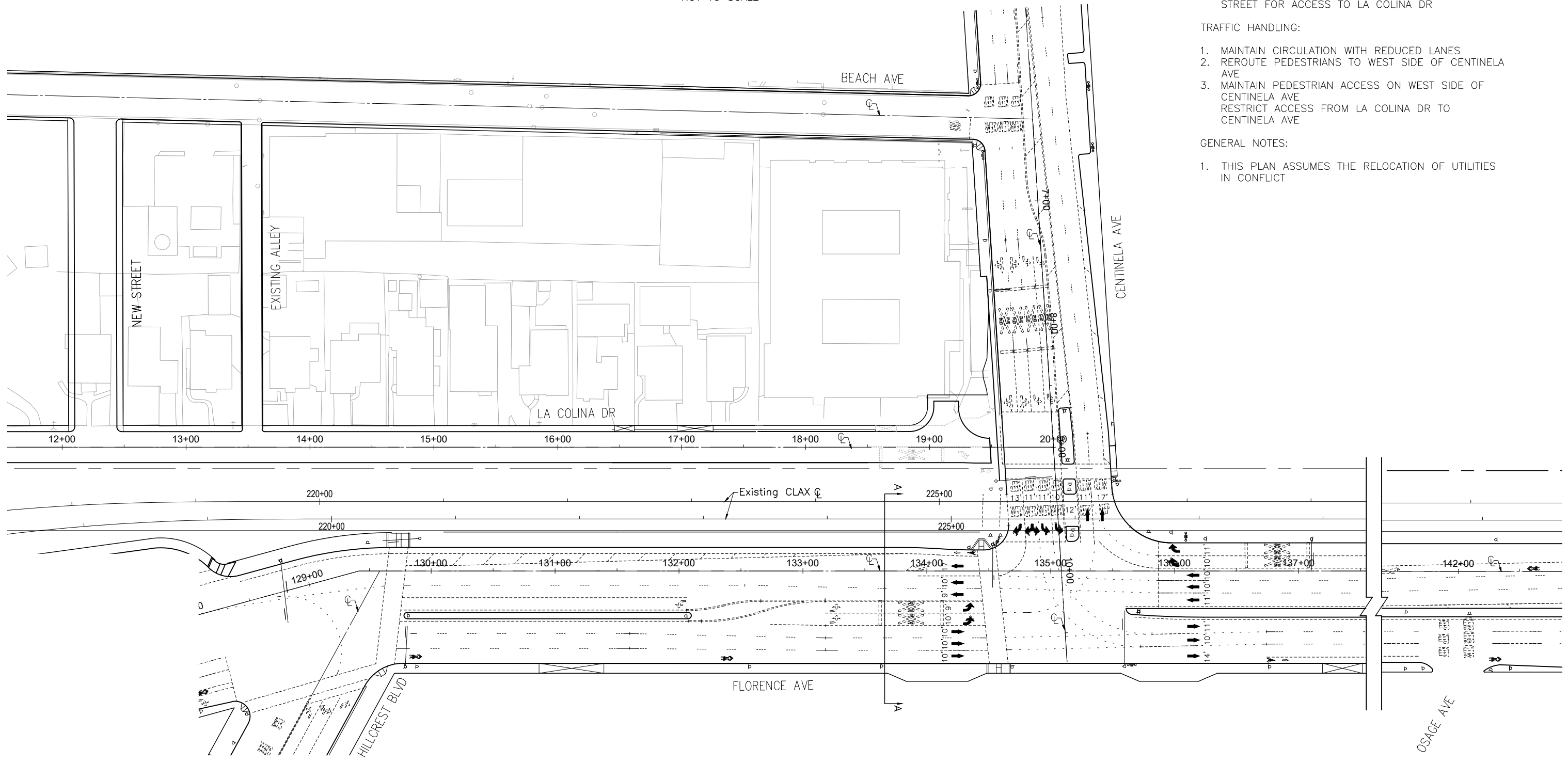
1. CONSTRUCT HAMMERHEAD TURNAROUND AND NEW STREET FOR ACCESS TO LA COLINA DR

TRAFFIC HANDLING:

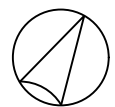
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. REROUTE PEDESTRIANS TO WEST SIDE OF CENTINELA AVE
3. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE
RESTRICT ACCESS FROM LA COLINA DR TO CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



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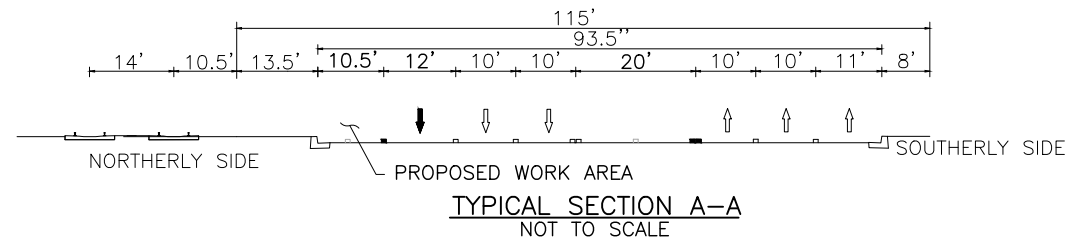


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**CENTINELA GRADE SEPARATION
ALTERNATIVE 3
STAGE CONSTRUCTION & TRAFFIC HANDLING**

SCALE: 1"=40'
DATE: 05-13-2020



LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL
	PROPOSED WORK AREA

STAGE 2 (10 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

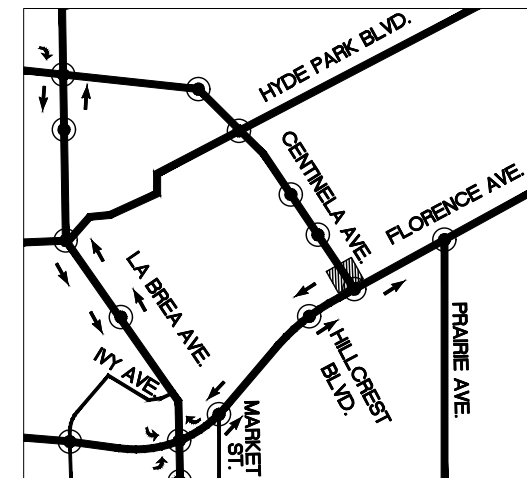
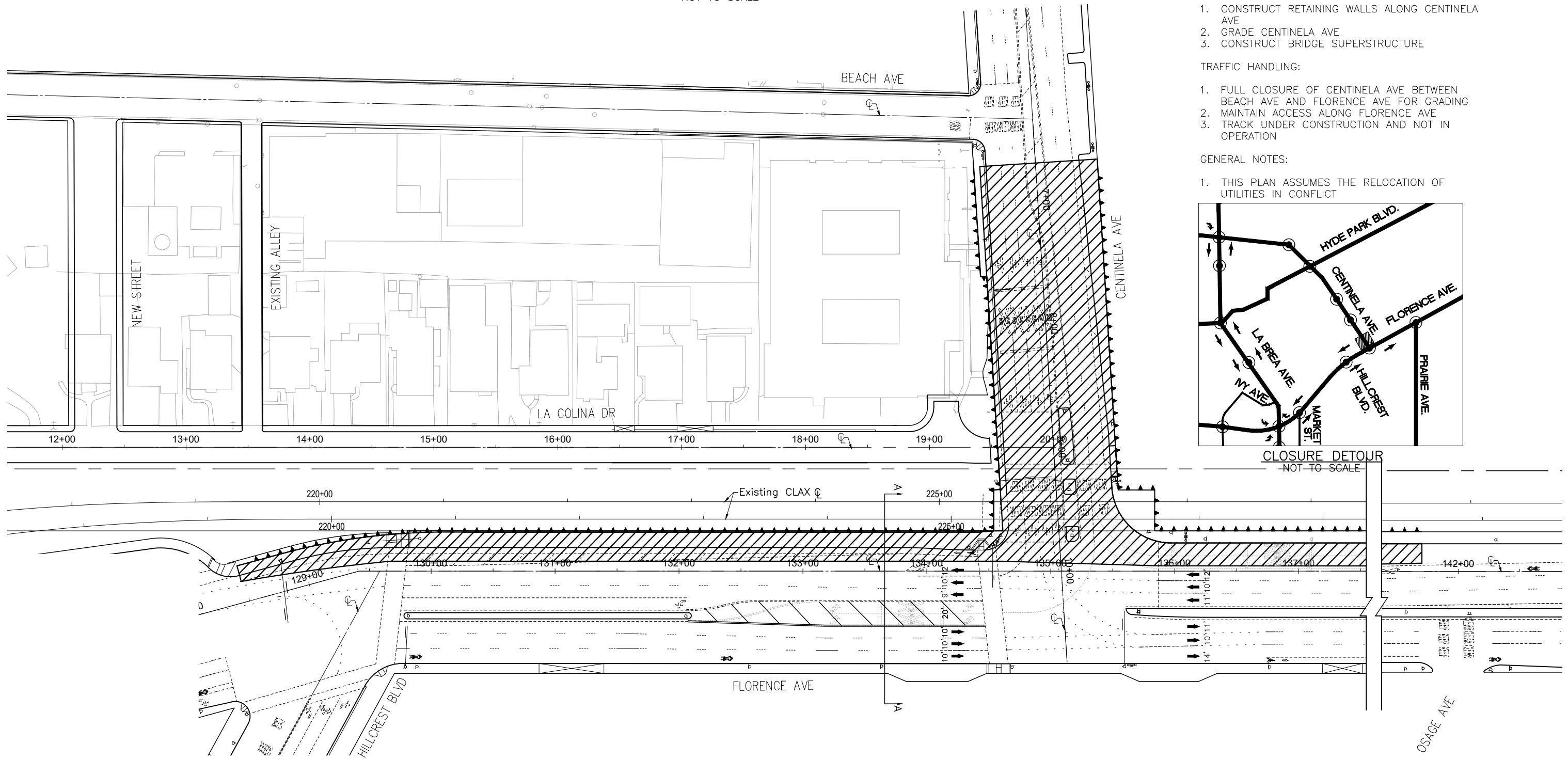
1. CONSTRUCT RETAINING WALLS ALONG CENTINELA AVE
2. GRADE CENTINELA AVE
3. CONSTRUCT BRIDGE SUPERSTRUCTURE

TRAFFIC HANDLING:

1. FULL CLOSURE OF CENTINELA AVE BETWEEN BEACH AVE AND FLORENCE AVE FOR GRADING
2. MAINTAIN ACCESS ALONG FLORENCE AVE
3. TRACK UNDER CONSTRUCTION AND NOT IN OPERATION

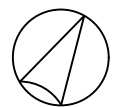
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



CLOSURE DETOUR
NOT TO SCALE

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**CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 STAGE CONSTRUCTION & TRAFFIC HANDLING**

SCALE: 1"=40'
 DATE: 05-13-2020

STAGE 3 (12 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

1. GRADE FLORENCE AVE
2. CONSTRUCT RETAINING WALLS ALONG FLORENCE AVE
3. REMOVE GRADE CROSSING PANELS (PREEXISTING CROSSING BY CLAX CONSTRUCTION)
4. CONSTRUCT CURB RAMPS FOR RELOCATED CROSSWALK
5. RESTORE PAVEMENT, SIDEWALK, CURB AND GUTTER ALONG FLORENCE AVE
6. INSTALL NEW TRAFFIC SIGNAL

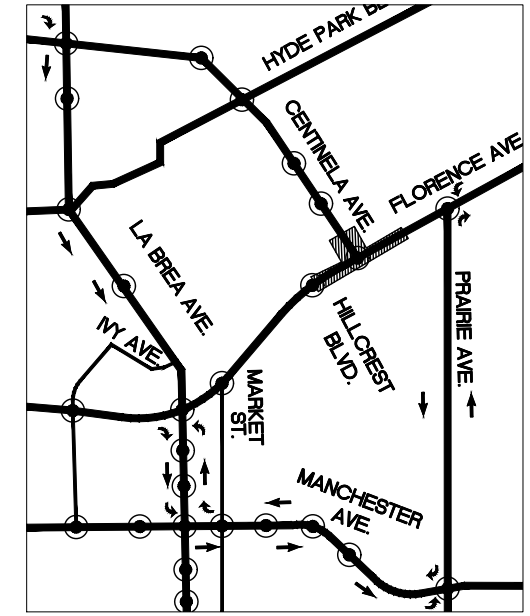
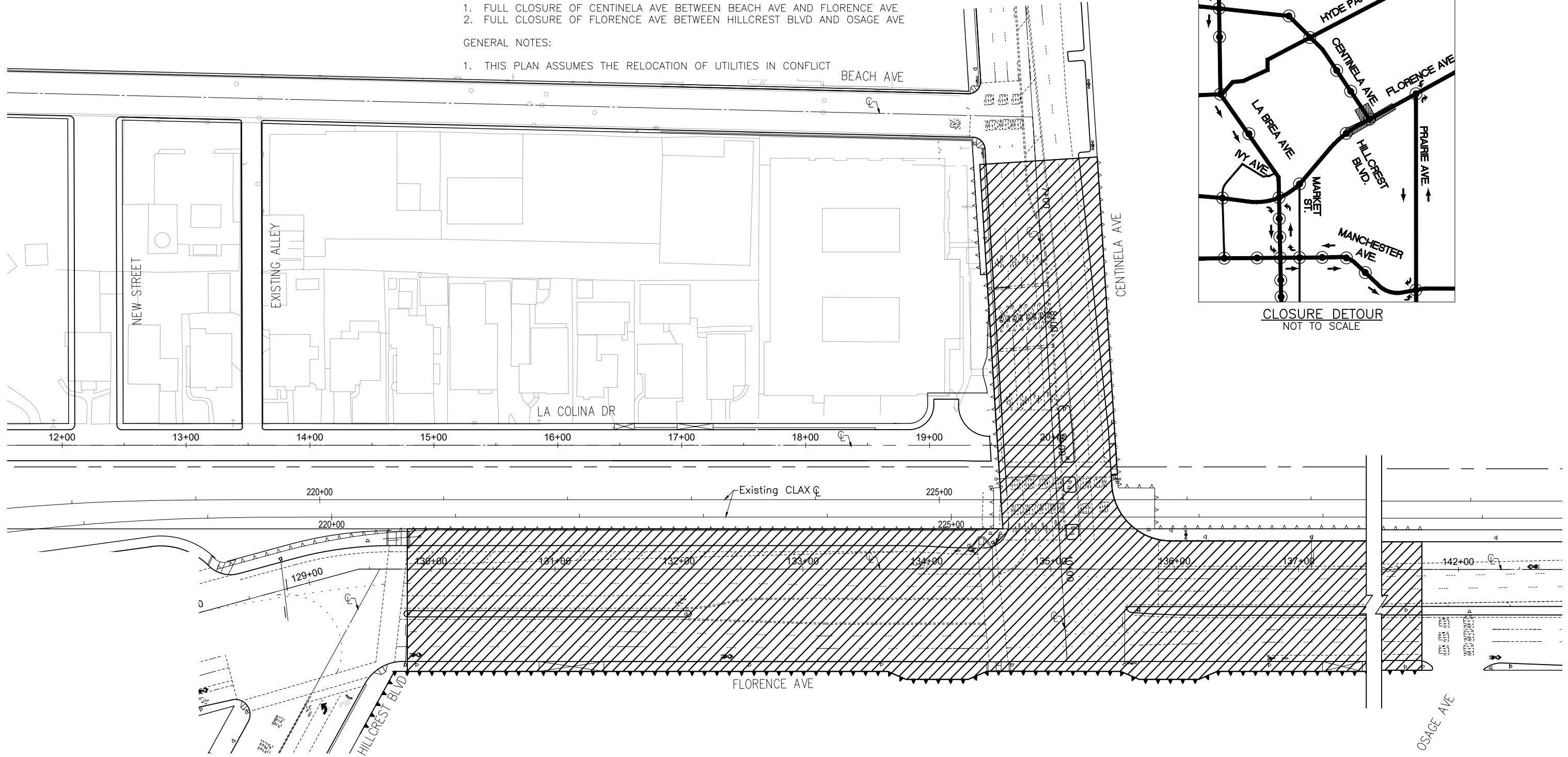
TRAFFIC HANDLING:

1. FULL CLOSURE OF CENTINELA AVE BETWEEN BEACH AVE AND FLORENCE AVE
2. FULL CLOSURE OF FLORENCE AVE BETWEEN HILLCREST BLVD AND OSAGE AVE

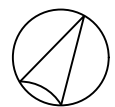
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT

LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA



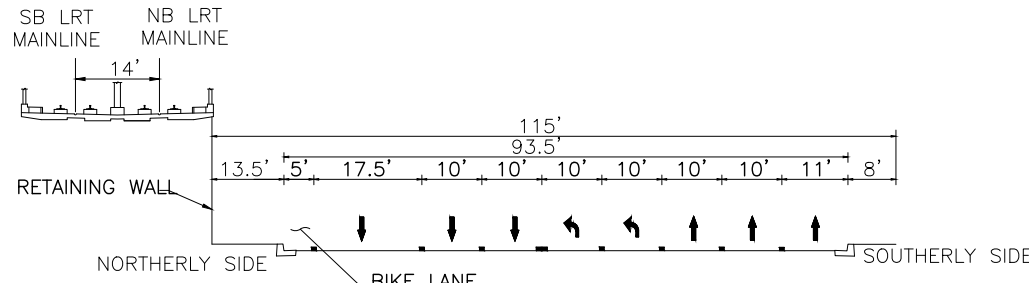
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CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 STAGE CONSTRUCTION & TRAFFIC HANDLING

SCALE: 1"=40'
 DATE: 05-13-2020



LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

STAGE 4 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

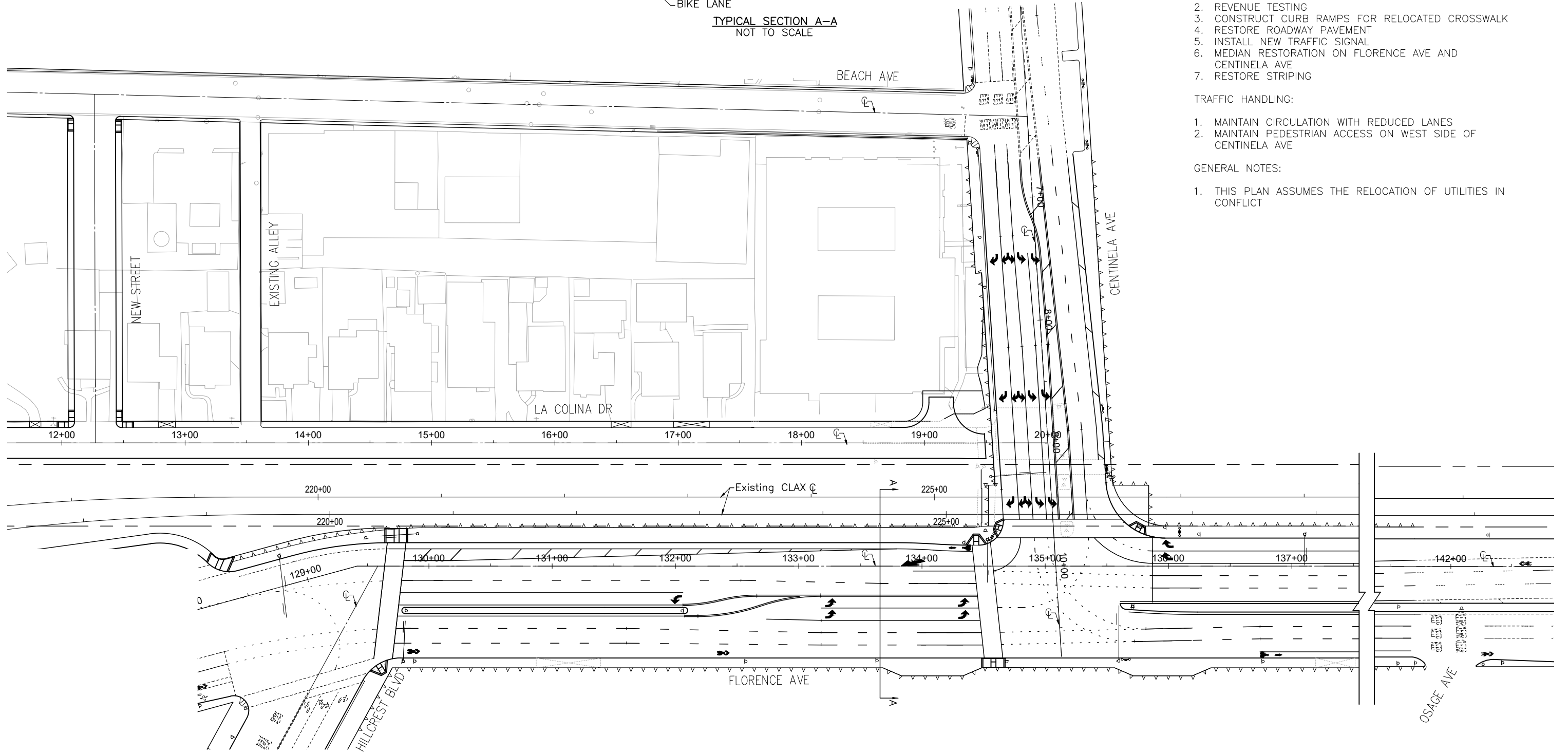
1. CONSTRUCT REMAINING TRACKWORK AND SYSTEMS
2. REVENUE TESTING
3. CONSTRUCT CURB RAMPS FOR RELOCATED CROSSWALK
4. RESTORE ROADWAY PAVEMENT
5. INSTALL NEW TRAFFIC SIGNAL
6. MEDIAN RESTORATION ON FLORENCE AVE AND CENTINELA AVE
7. RESTORE STRIPING

TRAFFIC HANDLING:

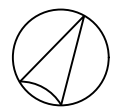
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

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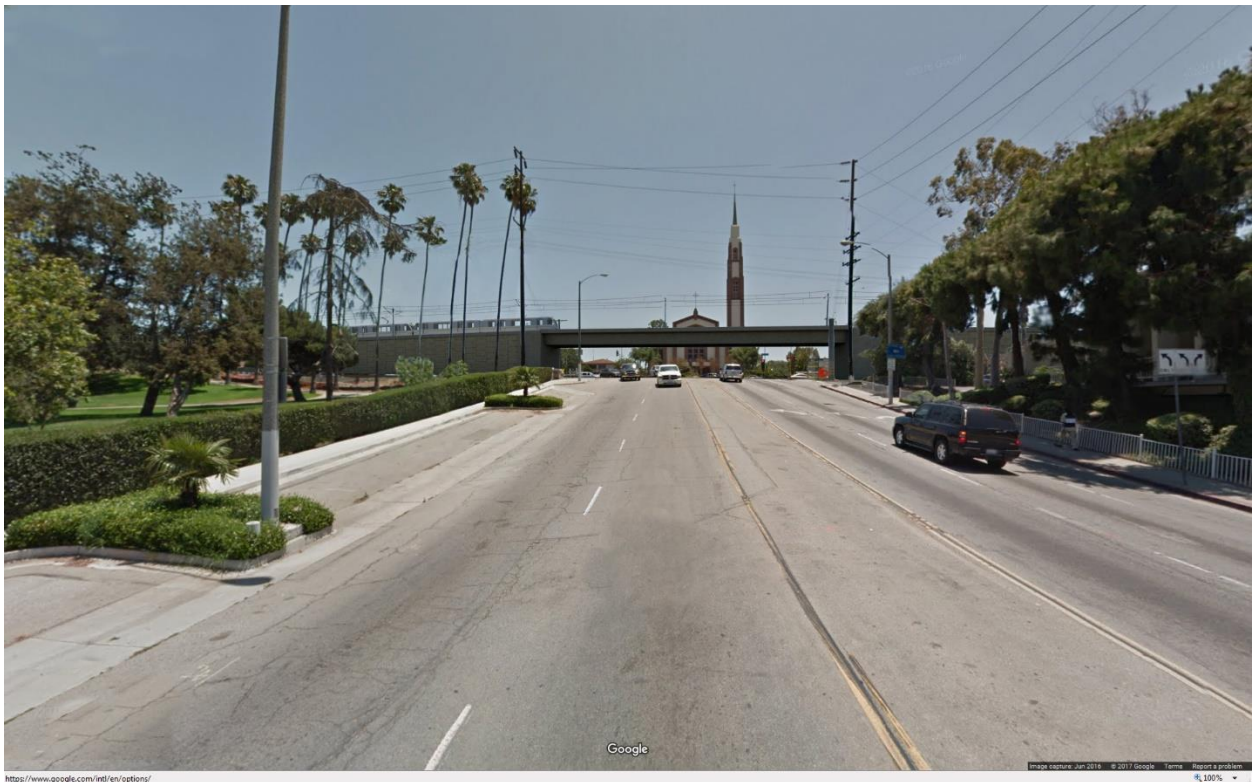
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 PASADENA, CA 91105
 213.972.9700



**CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 STAGE CONSTRUCTION & TRAFFIC HANDLING**

SCALE: 1"=40'
 DATE: 05-13-2020

ATTACHMENT C



Centinela Grade Separation

Project Definition, PE & Funding Strategy



Planning & Programming Committee
May 20, 2020
Executive Management Committee
May 21, 2020
Legistar File No. 2020-0199

Recommendation

Authorize:

- Receiving and Filing the Centinela Grade Separation Screening Analysis/Engineering Study
- Approving Project Definition as an Aerial Grade Separation
- Filing an environmental Statutory Exemption pursuant to CEQA
- Authorizing staff to proceed with Preliminary Engineering with an option for final design services

Project Background & Study Content

Board Direction

- Study authorized in December 2018 based on prior Grade Separation/Traffic Study and growth forecasts generated by NFL Stadium and associated other new developments since time of Crenshaw/LAX EIS/EIR in 2011

Study Elements

- Engineering Design- 15% design evaluated several alternatives with recommendation for LRT Above Grade-Aerial configuration. Cost range of \$185-\$241 million
- Environmental Review- To support the Statutory Exemption; technical studies (Transportation, Air Quality, Visual and Aesthetics, Noise and Vibration etc.)
- Community Outreach- Meetings conducted with adjacent stakeholders. In addition, a project update letter was mailed within an approximate 500 ft radius (5,000 addresses) of the proposed study site to address any initial questions or concerns



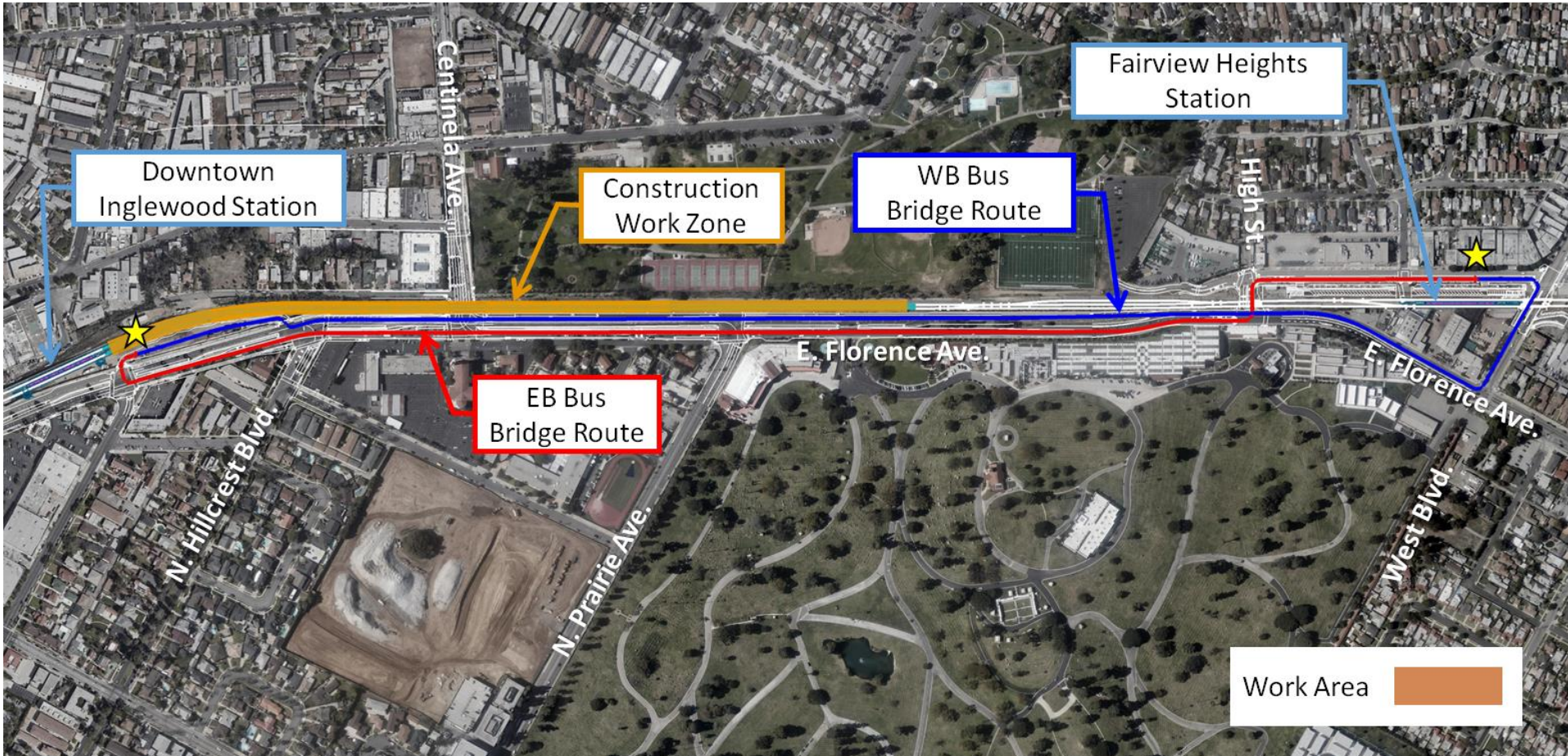
Project Funding Strategy

Funding Need

- **Design**- Board approved \$2.2 million in the FY20 budget to initiate design work. Staff is completing 15% design and is working to identify additional funds for inclusion in the proposed FY21 budget to complete Preliminary and Final Design
- **Construction**- Project cost estimates to be refined during Preliminary Engineering (30% design) from the current range of \$185-241million (15% design)
- **Local Funding Contribution**
 - Working with both South Bay Cities COG and City of Inglewood to develop a funding plan for the construction of the project
 - South Bay Cities COG has supported the use of \$130 million from the multi-year Subregional Equity Program (SEP)
 - SEP allocation funding is available in FY2043 per the LRTP Financial Forecast
- Other potential state and federal funding opportunities



Centinela Grade Separation Construction Staging



Next Steps/Project Schedule

Summer/Fall 2020

- Continue design and file the Statutory Exemption
- Continue to work the City of Inglewood and the South Bay Cities Council of Governments to secure construction funding for the project

Spring/Summer 2021

- Board approval for funding plan and construction
- Construction duration approximately 23 months



Board Report

File #: 2020-0313, File Type: Appointment

Agenda Number: 15.

**OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
MAY 21, 2020**

SUBJECT: MEMBERSHIP ON METRO’S SAN FERNANDO VALLEY SERVICE COUNCIL

ACTION: APPROVE NOMINATION

RECOMMENDATION

APPROVE Leslie Aguirre for membership on Metro’s San Fernando Valley Service Council.

ISSUE

A member of the San Fernando Valley Service Council submitted her resignation effective December 11, 2020. The terms of this now-vacant seat is July 1, 2018 - June 30, 2021.

DISCUSSION

Metro seeks to appoint Service Council members reflective of the demographics of each respective region. The 2016 American Community Survey demographics of the San Fernando Valley Service Council region where this appointment is to be made as compared to the demographics of the membership of the Council with this appointment is as follows:

Race	Hispanic	White	Asian	Black	Other
Membership	55.5%	44.4%	0%	0%	0%
Region Actual	41.7%	40.9%	11.0%	3.5%	3.0%

The following individual has been nominated to serve by the nominating authority of the vacant seat. If approved by the Board, this appointment will serve the remainder of the July 1, 2018 - June 30, 2021 term. A brief listing of the nominee’s qualifications and the nomination letter are provided.

San Fernando Valley

- A. Leslie Aguirre, San Fernando Valley Service Council, New Appointment
Nominated by: Los Angeles Mayor Eric Garcetti
Term Ending: June 30, 2021

The demographic makeup of the San Fernando Valley Service Council with the appointment of this nominee will consist of five (5) Hispanic members and four (4) White members as self-identified by

the members in terms of racial/ethnic identity. The gender breakdown of the Council will be five (5) men and four (4) women.

DETERMINATION OF SAFETY IMPACT

Maintaining the full complement of representatives on each Service Council to represent each service area is important. As each representative is to be a regular user of public transit, and each Council is composed of people from diverse areas and backgrounds, this enables each Council to better understand the needs of transit consumers including the need for safe operation of transit service and safe location of bus stops.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal: 30 Enhance communities and lives through mobility and access to opportunity.

NEXT STEPS

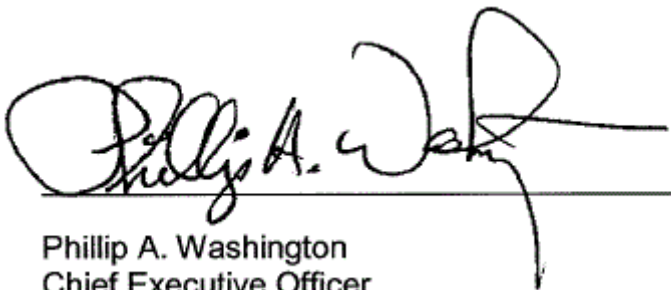
Staff will continue to monitor the major contributors to the quality of bus service from the customer's perspective, and share that information with the Service Councils for use in their work to plan and to implement and improve bus service in their areas and the customer experience using our bus service.

ATTACHMENTS

Attachment A - Nominees Listing of Qualifications
Attachment B - Nomination Letters

Prepared by: Conan Cheung, Sr. Executive Officer, Service Development, Scheduling and Analysis, (213) 418-3034
Dolores Ramos, Chief Administrative Analyst, Regional Service Councils, (213) 922-1210

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

NEW APPOINTEE BIOGRAPHY AND LISTING OF QUALIFICATIONS

Leslie Elizabeth Aguirre, Nominee for San Fernando Valley Service Council



Leslie Elizabeth Aguirre is a student at California State University Northridge (CSUN), where she is pursuing a bachelor's degree in political science with a minor in sustainability. The Van Nuys resident has been involved in local politics since she was in high school. She volunteered for the Democratic Party of the San Fernando Valley in 2016 and has also served as a board member for the San Fernando Valley Young Democrats. She has also been an active member of CSUN's Political Science Student Association since September 2017. Ms. Aguirre is currently employed with the office of

Assembly Member Jesse Gabriel

APPOINTING AUTHORITY NOMINATION LETTER



ERIC GARCETTI
MAYOR

April 22, 2020

Ms. Dolores Ramos
Chief Administrative Analyst
One Gateway Plaza
Los Angeles, CA 90012

Ms. Ramos,

I hereby submit the nomination of Ms. Leslie Aguirre to be appointed as a representative on the San Fernando Valley Service Council, for term ending on June 30, 2021.

I certify that in my opinion Ms. Aguirre is qualified for the work that will devolve upon her, and that I make this appointment solely in the interest of the City.

Please let me know if you need any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Garcetti'.

ERIC GARCETTI
Mayor

EG:cl

**Board Report**

File #: 2020-0103, **File Type:** Contract**Agenda Number:** 17.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
MAY 21, 2020****SUBJECT: P2000 COUPLER ASSEMBLY OVERHAUL****ACTION: CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 60-month, Indefinite Delivery/Indefinite Quantity (IDIQ) Contract No. MA6264000, to Wabtec Passenger Transit Corporation, Spartanburg, South Carolina, for P2000 Light Rail Vehicle (LRV) Coupler Assembly overhaul services. This award is a not-to-exceed amount of \$2,895,984 subject to resolution of protest(s), if any.

ISSUE

This procurement is for the acquisition of Coupler Assembly overhaul services as described by the Original Equipment Manufacturer (OEM) established maintenance guidelines. This overhaul encompasses overhaul of fifty-two (52) LRVs or (104) individual coupler assemblies.

Completion of this overhaul ensures the P2000 fleet remains in a constant State of Good Repair (SGR) while safeguarding passenger safety, vehicle performance and equipment longevity.

DISCUSSION

The P2000 Light Rail Vehicle (LRV) fleet is in its eighteenth (18) year of revenue operation with highest mileage car at 1.8 million miles cumulative fleet mileage of 45 million miles. To ensure continued passenger safety and equipment reliability the Coupler Assembly overhaul is recommended by the OEM at a time base interval of 5 years. The Coupler Assembly consists of mechanical and electrical components including mechanical coupler assembly, buffer, electrical cables, coupler head assembly for trainline functions. Wear and tear of these component is predictable therefore necessitating periodic overhauls accomplished by vendor with specialized equipment and mechanical expertise.

The P2000 Coupler Overhaul is in its 2nd overhaul cycle and is (1 of 5) systems currently under a component overhaul program. Other systems include Power Axle Assembly, Friction Brake & Air Compressor, Auxiliary Inverter (completed), and GTO Driver Board Overhaul also recently completed. This procurement is for the professional services to overhaul fifty-two kits to support the maintenance activities.

Rail Fleet Services (RFS) Engineering developed an equipment overhaul specification for the

Coupler Assembly Overhaul based upon the OEM recommendations and with RFS maintenance experience. The contractor will perform overhaul services in accordance with a defined schedule and with Metro's technical specifications requirements.

DETERMINATION OF SAFETY IMPACT

Safety is of the utmost importance to Metro and, therefore, it is imperative to maintain the P2000 fleet without deferred maintenance and in a constant state of good repair. The Coupler Assembly overhaul will be accomplished in conjunction with the Modernization overhaul program thereby ensuring the fleet is overhauled in accordance with regulatory standards, according to the defined schedule and technical specifications requirements, and within Metro's internal standards, policies and procedures.

FINANCIAL IMPACT

Funding in the amount of \$200,000 for this procurement is included in the FY20 budget under account 50441, Parts - Revenue Vehicle in Rail Fleet Services, Blue Line cost center 3941, project 300022 and Green Line cost center 3943, project 300033.

Since this is a multi-year contract, the cost center Manager, Project Manager, and Sr. Executive Officer will ensure that the balance of funds are budgeted in future fiscal years.

Impact to Budget

The current source of funds for this action are Federal, Prop A, Measure M, State SB1, and Enterprise Funds including fares and advertising. Using these funding sources maximizes the project allocations allowed by approved funding provisions and guidelines. This procurement is part of the on-going LRV preventive maintenance program.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal 2, Deliver outstanding trip experience for all users of the transportation system.

ALTERNATIVES CONSIDERED

Deferral of this program is not recommended as the Coupler Assembly is an integral component of the vehicle systems that if not properly maintained could result in equipment failures, service delays, risk to passenger safety, with negative impact to vehicle available and reliability.

NEXT STEPS

Overhaul of the P2000 LRV Couper Assembly overhaul will continue in accordance with Rail Fleet Services' scheduled requirements. If approved, the project is scheduled to commence in June 2020.

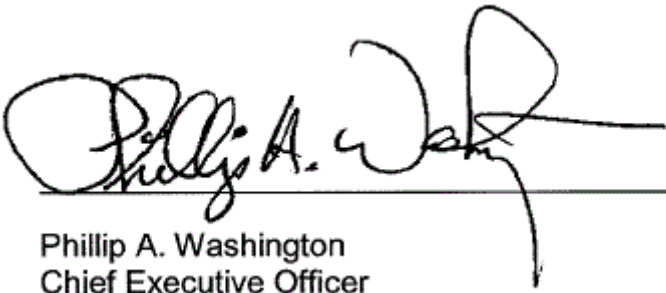
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B -DEOD Summary

Prepared by: Bob Spadafora, Sr. Executive Officer, Rail Fleet Services
(213) 922-3144
Richard M. Lozano, Sr. Director, Rail Vehicle Maintenance,
(323) 224-4042

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer,
(213) 418-3051



Phillip A. Washington
Chief Executive Officer

**PROCUREMENT SUMMARY
P2000 COUPLER ASSEMBLY OVERHAUL**

CONTRACT NO. MA6264000

1.	Contract Number: MA6264000	
2.	Recommended Vendor: Wabtec Passenger Transit	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: August 2, 2019	
	B. Advertised/Publicized: July 31, 2019	
	C. Pre-Proposal Conference: September 10, 2019	
	D. Proposals Due: October 9, 2019	
	E. Pre-Qualification Completed: January 29, 2020	
	F. Conflict of Interest Form Submitted to Ethics: January 23, 2020	
	G. Protest Period End Date: March 19, 2020	
5.	Solicitations Picked up/Downloaded: 15	Proposals Received: 2
6.	Contract Administrator: Jean Davis	Telephone Number: 213/922-1041
7.	Project Manager: Richard Lozano	Telephone Number: 323/224-4042

A. Procurement Background

This Board Action is to approve Contract No. MA6264000 issued in support of Metro's P2000 Light Rail Vehicle (LRV) to procure overhaul services for the Coupler Assemblies. Board approval of contract award is subject to resolution of any properly submitted protest.

The Request for Proposals (RFP) No. MA62640 was issued in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Delivery, Indefinite Quantity (IDIQ).

Four (4) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued August 9, 2019; provided changes to the RFP evaluation criteria and Technical Specifications, and cancelled the pre-proposal conference.
- Amendment No. 2, issued August 12, 2019; provided changes to the evaluation criteria, established a new pre-proposal conference date, and extended the proposal due date to September 18, 2019.

- Amendment No. 3, issued August 30, 2019; changed the pre-proposal conference to include a Job Walk and revised the proposal due date.
- Amendment No. 4, issued September 25, 2019; provided changes to Exhibit C – Work Completion/Deliverable Schedules and revised the proposal due.

A pre-proposal conference and Job Walk were held on September 10, 2019 with five (5) attendees.

Two (2) proposals were received on October 9, 2019.

B. Evaluation of Proposals

A Proposal Evaluation Team consisting of staff from the Operations Rail Fleet Services, Rail Vehicle Engineering and Vendor/Contract Management Services departments was convened and conducted a comprehensive technical evaluation of the proposals received. The proposals were evaluated based on the following evaluation criteria and weights:

Proposer's Work Scope	30%
Technical Capability	20%
Past Performance	15%
Project Management	15%
Cost	20%

The evaluation criteria are appropriate and consistent with criteria developed for similar equipment overhaul services. Several factors were considered when developing these weights, giving the greatest importance to technical factors as this equipment is safety sensitive.

Of the two proposals received, both proposers were determined to be within the competitive range. The two firms within the competitive range are listed below in alphabetical order:

1. Dellner, Incorporated
2. Wabtec Passenger Transit

	FIRM	Average Score	Factor Weight	Weighted Average Score	Rank
	WABTEC PASSENGER TRANSIT				1
	Proposed Work Plan	86.67	30.00%	26.00	
	Technical Capability	84.33	20.00%	16.87	
	Past Performance	91.11	15.00%	13.67	
	Project Management	93.33	15.00%	14.00	
	Cost Proposal	100.00	20.00%	20.00	
	Total		100.00%	90.54	
	DELLNER, INC.				2
	Proposed Work Plan	70.00	30.00%	21.00	
	Technical Capability	80.33	20.00%	16.07	
	Past Performance	90.00	15.00%	13.50	
	Project Management	83.33	15.00%	12.50	
	Cost Proposal	93.32	20.00%	18.66	
	Total		100.00%	81.73	

The firm recommended for award, Wabtec Passenger Transit was found to be in full compliance with the technical and all other RFP requirements, and received the highest ranking.

Qualifications Summary of Firms within the Competitive Range:

Wabtec Passenger Transit

Wabtec Passenger Transit (WPT) is the Original Equipment Manufacturer (OEM) of the Coupler Systems for Metro’s P2000 Green Line, A650 Red Line, and P2020 Blue Line railcars. WPT provided an acceptable work plan in their proposal, and it possesses the required experience, equipment, tools and personnel to provide overhaul services in accordance with both the SOW and Technical Specification.

WPT has completed similar coupler overhaul contracts for Sacramento RTA, it currently has coupler overhaul contracts with Crystal Movers in California, and with MARTA. As the OEM, WPT has the current contract with Metro for P2000 Coupler overhaul. WPT has made significant improvements in their contract performance with Metro.

Dellner, Inc.

Dellner Incorporated (Dellner) was determined to have the technical capability and capacity to perform the required coupler overhauls. Dellner also possesses the required experience, equipment, tools, and personnel to provide the coupler overhaul services of the coupler assembly per the technical specification. However, Dellner indicated an inability to meet the First Article Inspection (FAI) and Production Schedules in the time required as specified in the SOW.

Dellner has a current contract with Metro for overhaul services of the P2550 coupler assemblies. Dellner completed similar coupler overhaul contracts with Hitachi Rail of Loveridge, CA from 2010 to 2017 and Charlotte Area Transportation System (CATS) of Charlotte, NC from 2017 to 2019.

C. Price Analysis

The recommended price has been determined to be fair and reasonable based on award to the lowest responsive, responsible offer. A technical evaluation was performed on all proposals and WPT's price proposal in the amount of \$2,895,984 was further evaluated against the Independent Cost Estimate (ICE).

Proposer Name	Proposal Amount	Metro ICE
Dellner, Inc.	\$3,103,360	\$2,495,400
Wabtec Passenger Transit	\$2,895,984	

D. Background on Recommended Contractor

Wabtec Passenger Transit Corporation (WPT) was formed in November 1999. WPT is a manufacturer of pneumatic, electronic and mechanical devices such as braking equipment, controllers, current collectors and couplers for the transit industry worldwide. WPT is headquartered in Spartanburg, South Carolina, and has a service center located in San Fernando California.

WPT is the OEM for the Friction Brakes and Coupler Assembly Systems on Metro's A650, P2000, P2020, and P3010 rail vehicles. WPT currently has performed satisfactorily on five (5) separate overhaul contracts with Metro for the A650 and P2000 friction brake overhauls; and for the A650, P2000, and P2020 coupler assembly overhauls.

DEOD SUMMARY

P2000 COUPLER ASSEMBLY OVERHAUL
CONTRACT NO. MA6264000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) or a Disabled Veteran Business Enterprise (DVBE) goal for this procurement due to the lack of subcontracting opportunities. According to the Project Manager, the contractor shall pick up, repair/overhaul, test, deliver, and warranty the assembly in accordance to the technical specification, performing all work with its own workforces.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2020-0284, **File Type:** Application

Agenda Number: 22.

**CONSTRUCTION COMMITTEE
MAY 21, 2020**

SUBJECT: SOUNDWALL PACKAGE 11 HIGHWAY PROJECT

ACTION: CONTRACT MODIFICATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

EXECUTE Modification No. 19 to Contract No. C39033C1101-2 Soundwall Package 11 Highway Project for work above and beyond the original scope of services. This additional work is within the LOP budget and increases the total contract price in the amount of \$860,000, from \$66,041,760 to \$66,901,760.

ISSUE

During construction of Soundwall Package 11, permeation grouting was required at several bridge locations. Permeation grouting is an industry standard and a Caltrans accepted method of stabilizing and increasing bearing and friction capacity of in-situ soils and is accomplished by injecting grout deep into the soils at low pressure. The permeation grouting specification within the Soundwall Package 11 Contract did not match the soil conditions onsite, and the Contractor was requested to assist in investigating alternative methods to stabilize the soil.

Construction Modification 19 authorizes compensation to the Contractor in the amount of \$860,000 for additional time and overhead related to delays during permeation grouting investigation and re-design. This Modification increases the construction duration 287 Calendar Days, from December 19th, 2020 to October 2nd, 2021 for substantial completion.

Contract modifications on this project exceeding \$750,000 require Board authorization.

BACKGROUND

The Soundwall Package 11 Project is located entirely within Caltrans right of way and consists of construction of soundwalls on Route 170 from Route 101 separation to the Sherman Way

Overcrossing, and on Route 405 from north of Saticoy Street Undercrossing to Roscoe Boulevard Undercrossing. The project also includes modifying and widening eight existing bridges.

DISCUSSION

To accommodate new deep foundation Cast in Drilled Hole piles required for the bridge widenings, the design team incorporated a soil stabilization technique called permeation grouting. This grouting was to be performed at seven bridge widening locations. During the design phase, the design team performed investigation into the soils at these locations and included a specification that assumed the permeation grouting could be performed in accordance with Caltrans standard specifications. During construction, it was discovered that the soils at the bridge locations differed materially from a preferred soil profile that would accept the permeation grouting. The design team requested the Contractor to perform additional geotechnical surveys to determine the most appropriate path forward. After receiving the additional geotechnical information and performing additional design work, the Engineer of Record presented an acceptable solution to Caltrans and Metro. During this period of investigation and re-design, the critical path of the project was delayed 287 Calendar Days, with 215 days being excusable and compensable, and 72 days being excusable and non-compensable.

This Modification will include all costs associated with permeation grouting for the contract milestone delay.

DETERMINATION OF SAFETY IMPACT

There is no impact to public safety by approving this recommendation.

FINANCIAL IMPACT

The LOP budget for Soundwall Package 11 Highway Project is \$89,183,000 in local Measure R Highway 20% and Prop C 25% Funds.

The change identified herein will not increase the project budget for the current fiscal year, as the local funding is only a portion of the total project programmed funding in Cost Center 8410 (Construction Management), in Project 460324.

This a multi-year project, therefore the cost center manager and the Executive Officer, Program Management would be responsible for budgeting project costs in future fiscal years.

IMPACT TO BUDGET

The source of funds for this recommendation is Measure R (20%) and Prop C (25%) Highway Funds, which are not eligible for bus or rail operations. No other funds were considered.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project is consistent with the following Metro Vision 2028 Goals and Objectives:

Goal 1: Providing high-quality mobility options and improve transit efficiency;

Goals 4 and 5: Transforming LA County through regional collaboration with Caltrans and the Corridor Cities by contributing funds and providing resources to assist Caltrans in management and delivery of these projects.

ALTERNATIVES CONSIDERED

The Board may choose not to approve this staff recommendation. However, this decision would result in further schedule delay and cost increases.

NEXT STEPS

Upon Board approval, staff will execute Contract Modification No. 19 to Contract No. C39033C1101-2.

ATTACHMENTS

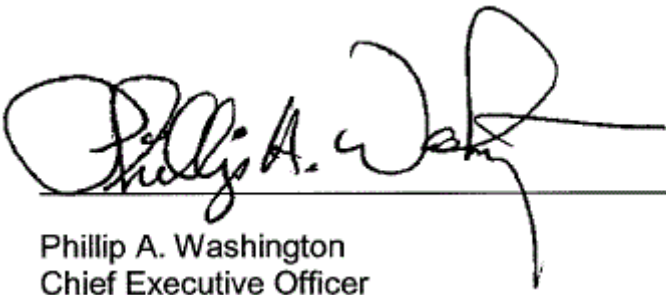
- Attachment A - Procurement Summary
- Attachment B - Contract Modification / Change Order Log
- Attachment C - DEOD Summary

Prepared by:

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Brad Owen, Executive Officer, Program Management (213) 418-3143

Reviewed by:

Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051
Richard Clarke, Chief Program Management Officer, Program Management (213) 922-7447



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SOUNDWALL PACKAGE 11/C39033C1101-2

1.	Contract Number: C39033C1101-2		
2.	Contractor: Powell Constructors, Inc.		
3.	Mod. Work Description: Time extension and related extended overhead cost for delay		
4.	Contract Work Description: Modification to eight existing bridges and soundwall on Route 710, Route 101, and Route 405		
5.	The following data is current as of: 4/3/2020		
6.	Contract Completion Status:		
	Bids/Proposals Opened:	08/31/2017	% Completion \$s: 56%
	Contract Awarded:	10/30/2017	% Completion time: 56%
	NTP:	12/20/2017	Original Contract Days: 1460 calendar days
	Original Complete Date:	12/20/2021	Change Order Days: 287 days
	Current Est. Complete Date:	10/3/2022	Suspended Days: 0 days
			Total Revised Days: 287 days
7.	Financial Status:		
	Contract Award:	\$66,041,760.00	
	Total Contract Modifications Approved:	\$1,504,083.87	
	Current Contract Value:	\$67,545,843.30	
	Contract Administrator: Helen Gates-Bryant	Telephone Number: 213-922-1269	
8.	Project Manager: Joe Wright	Telephone Number: 213-418-3460	

A. Contract Action Summary

This Board Action is to approve Contract Modification No. 00019 in support of a compensable time impact, for delays affecting the Critical Path of the Project from Notice to Proceed to December 31, 2019.

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

The contract was awarded October 30, 2017, to Powell Constructors, in the amount of \$66,041,760.00. The period of performance was 1460 calendar days.

Refer to Attachment B – Contract Modification Log for modifications to date.

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon a time impact analysis (TIA) prepared and utilized to determine the independent cost estimate, fact finding, cost analysis, and negotiations, in accordance with Metro procurement policy and procedures.

Proposal amount	Metro ICE	Negotiated or NTE amount
\$1,068,000.00	\$716,000.00	\$860,000.00

CONTRACT MODIFICATION/CHANGE ORDER LOG

Mod. no.	Description	Status (approved or pending)			
			Contract Value	Mods.	Board Approved CMA
NA	Initial Award		\$66,041,760.00		\$6,604,176.00
1	Contract Conforming and Clarifications	Approved		\$0.00	
2	Revise Contract Article I	Approved		\$0.00	
3	Contract Conforming and Clarifications – Lane Closure Charts Adjustments	Approved		\$0.00	
4	Temporary Mainline Striping	Approved		\$0.00	
5	Additional Temporary Traffic Control, City of LA	Approved		\$310,000.00	
6	Additional Tree Removal in the SB 170	Approved		\$78,970.16	
7	Crash Cushion Replacement	Approved		\$15,991.00	
8	Striping Inefficiencies	Approved		\$38,954.00	
9	Permanent Sign Modification	Approved		\$21,542.47	
10	Electrical Service Connection at SW #951	Approved		\$25,971.00	
11	Removal of Overhead Sign Structure's Walkways	Approved		\$60,897.00	
12	Modification to Retaining Wall #870	Approved		\$126,874.00	
13	Buried Man-Made Objects; Remove Existing Sign; Repair Existing CSP; Crash Cushion Replacement	Approved		\$86,394.00	
14	DWP Full Freeway Closures' Support; SB Route 170-Riverside Drive Off-Ramp Striping	Approved		\$88,538.47	
15.2	Quantity Adjustment for Provisional Sum Authorization-COZEEL	Approved		\$480,000.00	
17	Combined Extra Work Items at SW 917, 860, 891 and Other Areas	Approved		\$72,173.36	
18	Various Extra Work Performed	Approved		\$97,778.41	
	Subtotal Approved Modifications			\$1,505,083.87	
19	Time Extension and Related Extended Overhead Cost	Pending	\$	\$860,000.00	\$
					\$
					\$

Subtotal Totals: Mods. + Pending Changes/Modifications	\$	\$2,364,083.87	\$
Subtotal – Pending Claims	\$	\$0.00	\$
Total: Mods + Pending Changes/Mods + Possible Claims	\$	\$2,364,083.87	\$
Previous Authorized CMA	\$	\$6,604,176.00	\$
CMA Remaining for Future Changes/Mods after this Action	\$	\$4,240,092.13	\$

SOUNDWALL PACKAGE 11/CONTRACT NO. C39033C1101-2

DEOD SUMMARY

SOUNDWALL PACKGE 11/C39033C1101-2

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 29% Small Business participation goal for this project, inclusive of a 26% Small Business Enterprise (SBE) goal and a 3% Disabled Veteran Business Enterprise (DVBE) goal. Powell Constructors, Inc. exceeded the goal by making a 29.76% SBE/DVBE commitment, inclusive of a 26.35% SBE commitment and a 3.41% DVBE commitment.

Based on payments reported, the contract is 48% complete and the SBE/DVBE participation is 34.21%, inclusive of 29.47% SBE commitment and 4.74% DVBE commitment. Powell Constructors, Inc. is currently exceeding the SBE commitment by 3.12% and the DVBE commitment by 1.33%.

Small Business Commitment	26.35% SBE 3.41% DVBE	Small Business Participation	29.47% SBE 4.74% DVBE
----------------------------------	----------------------------------	-------------------------------------	----------------------------------

	SBE Subcontractors	% Committed	Current Participation¹
1.	G&F Concrete Cutting	0.78%	0.78%
2.	Rupert Construction Supply	2.22%	3.97%
3.	Global Transloading, LLC	1.20%	4.97%
4.	Titan Constructor Engineering	1.35%	1.05%
5.	Deco Pave, Inc.	3.67%	2.32%
6.	High-Light Electric Inc.	9.81%	11.68%
7.	Martinez Landscape	3.21%	0.03%
8.	Miranda Logistics Enterprises, Inc.	0.27%	0.54%
9.	G & C Equipment Company	1.44%	0.11%
10.	G & C Equipment Company	2.39%	4.02%
	Total SBE Commitment	26.35%	29.47%

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

	DVBE Subcontractors	% Committed	Current Participation¹
1.	EnGEN Corporation	1.57%	2.88%
2.	RKW Veterans Solutions, LLC	1.79%	1.34%
3.	G & C Equipment Company	0.05%	0.52%
	Total	3.41%	4.74%

¹Current Participation = Total Actual amount Paid-to-Date to DVBE firms ÷ Total Actual Amount Paid-to-date to Prime

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA). Trades that may be covered include: surveying, potholing, field, soils and materials testing, building construction inspection, construction management and other support trades.

D. Project Labor Agreement / Construction Careers Policy (PLA/CCP)

The Contractor has committed to complying with PLA/CCP requirements for this project. This project is 53.25% complete (based on total construction labor hours expended, divided by the total estimated construction labor hours in the approved Employment Hiring Plan) and the contractor is achieving the 40% Targeted Worker Goal at 40.14%, not achieving the 20% Apprentice Worker Goal at 14.36%, and not achieving the 10% Disadvantaged Worker Goal at 4.23%. Prime Contractor has submitted an Employment Hiring Plan which states compliance with the PLA/CCP workforce goals will be met at 65% project completion. Staff will continue to monitor and report the contractor's progress toward meeting the goals of the PLA/CCP.



Board Report

File #: 2020-0170, File Type: Informational Report

Agenda Number: 23.

CONSTRUCTION COMMITTEE MAY 21, 2020

SUBJECT: SYSTEMS ENGINEERING AND SUPPORT SERVICES

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. An increase in total authorized funding for Contract No. AE47810E0128 with SECOTrans (Joint Venture of LTK Engineering Services, NBA Engineering Inc., Pacific Railway Enterprises Inc., and Ramos Consulting Services, Inc), for pending and future Task Orders to provide systems engineering and support services in the amount of \$22,500,000 for 1 year, increasing the total contract value from \$43,932,000 to \$66,432,000 through Fiscal Year 2021; and
- B. The Chief Executive Officer (CEO) or designee to execute individual Task Orders and Contract Modifications within the Board approved contract funding amount.

ISSUE

In April 2018, the Board approved awarding a seven-year cost reimbursable fixed fee, Task Order (TO) based Contract No. AE47810E0128, plus three one-year options, to SECOTrans, a Joint Venture for Systems Engineering and Support Services (SESS) consultant. The Board action provided an initial two-year funding authorization in the amount of \$28,932,000 through Fiscal Year 2020. In February 2020, a separate Board action approved an additional not-to-exceed (NTE) authorization in amount of \$15,000,000 to support the Rail Operations Center and Bus Operations Center (ROC/BOC) Project increasing the total Board approved contract authority to a new NTE amount of \$43,932,000. The recommended board action above will increase the contract value by \$22,500,000 to a new NTE of \$66,432,000 through Fiscal Year 2021-2022 (FY21). Staff will continue to return to the board on an annual basis to request additional contract authorization as conditions and project requirements warrant

BACKGROUND

To date, staff has awarded TO's and Contract Modifications (MODS) totaling \$25,081,605 with approximately \$18,850,395 in authorized funding remaining. The SESS Consultant has been exceeding their DBE commitment by over ten (10) percent based on the TOs executed to date.

Examples of projects supported by this contract include Metro Operational Analyses, Crenshaw\LAX, Metro A (Blue) Line Upgrades, East San Fernando Valley Light Rail Transit and West Santa Ana Branch Transit. Attachment C includes a complete listing of the TO's and MODS executed over the initial two-years of the SESS contract. As indicated during initial approval, staff is now seeking an additional one year funding authorization to support Systems Engineering and Measure M projects.

DISCUSSION

With the approval of Measure M, the ongoing implementation of the Measure R program, required State of Good Repair initiatives, and the Board's desire to accelerate eligible projects prior to the 2028 Olympics, staff has engaged a SESS to provide a broad range of systems engineering design and related support services to supplement current Systems Engineering Department resources. Metro's capital program is over \$18 billion and requires extensive resources with the ability to react quickly to a wide range of complex technical issues. With a strong core staff located in Los Angeles, the SESS is capable of applying and withdrawing resources as the workload of projects fluctuates over time. The SESS has the extensive experience and capability to support the complete project lifecycle; from the conceptual phase to final design and construction.

Due to the intensive system integration requirements and length of time needed to deliver major capital improvement projects, this contract has allowed Metro to efficiently and effectively augment Program Management staff where appropriate to ensure the proper project resources are available to Metro in terms of additional staff and technical expertise.

The SESS provides a single systems engineering team, and associated sub-specialties, with the necessary resources to assist in the planning, development, and delivery of Metro's aggressive schedule of projects for the next decade. Examples of systems engineering disciplines include traction electrification, overhead contact systems (OCS), train control, communications, supervisory control and data acquisition (SCADA), rail simulations, corrosion control, systemwide electrical and other specialized disciplines.

Other Considerations

The challenge presented by the simultaneous implementation of numerous projects is to ensure the integration and standardization of the systems elements within and across the current Metro system. Consistent development and design is necessary to ensure that the required integration is achieved with respect to civil and electrical infrastructure, vehicles, control systems, communications, operations, maintenance, security, training, etc.

Prior to the procurement of the SESS, each project would use a different consultant for this work, resulting in inconsistent applications. This approach was no longer feasible or advisable with the large volume of projects now underway. With a single SESS design team on staff, the standardization of design, construction and functionality of systems elements will keep Metro's long-term interest of system interoperability and safety at the forefront. A fully-integrated network requires a consistency of systems design and not a collection of potentially incompatible independent designs arising from separate projects. This approach has been implemented successfully in other transit agencies nationwide and the benefits of full systems standardization include:

- Interoperability and efficient maintainability
- Improved commercial viability
- Reduced spares requirements
- Reduced training requirements
- Flexibility to adapt to changing circumstances

In addition to the projects listed above and on Attachment C, staff expects the SESS to provide systems engineering services for current and future rail and bus transit projects, and other capital improvement projects, including, but not limited to, the following:

- East San Fernando Valley Transit Corridor
- L (Gold) Line Eastside Phase 2 Extension
- C (Green) Line South Bay Rail Extension
- West Santa Ana Transit Corridor
- Sepulveda Pass Transit Corridor
- Vermont Transit Corridor
- G (Orange) Line BRT Improvements
- Westside D (Purple) Line Extension Section 3

DETERMINATION OF SAFETY IMPACT

The use of a consistent systems design process has a positive safety benefit during the construction and subsequent operations of Metro's Bus and Rail transit network.

FINANCIAL IMPACT

The requested not-to-exceed award value is based on the anticipated level of services that will be required through FY21. Funding for the individual TOs are funded through and included in the Board approved life-of-project (LOP) or departmental budgets; Therefore, this work is within the various project budgets.

Since this is a multi-year contract, project managers, cost managers, and Chief Program Management Officer will be responsible for budgeting the costs in future years.

Impact to Budget

Funding for TOs issued under this contract is provided by the specific project(s) requiring those services, as well as project studies, other general system engineering issues, and small-scale analyses. The current Funds allocated to this effort consist of federal, state, and local sources, including Measure R and Measure M. Using these funding sources maximizes the project funding parameters allowed by approved provisions and guidelines. Alternative funding sources will be applied as additional revenue funding opportunities become available.

ALTERNATIVES CONSIDERED

The board may choose to reject the recommendation and request staff to re-procure these services through an RFP, choose to authorize an alternative amount, or approve an alternative term of financial authorization. Staff does not recommend these alternatives. The use of a qualified SESS consultant has allowed the agency to secure highly technical expertise without the necessary increase in Metro's long-term labor costs. Further, by providing for an extended term contract, the board has afforded staff the resources that seek to provide an integrated and consistent network design that serves Metro's interests. Finally, by limiting the funding authorization to one year, greater accuracy of project scope and cost requirements are provided to the Board on an annual basis.

NEXT STEPS

Upon Board approval, staff will complete the process to amend the contract. Specific task orders will be subsequently issued on an as needed basis.

ATTACHMENTS

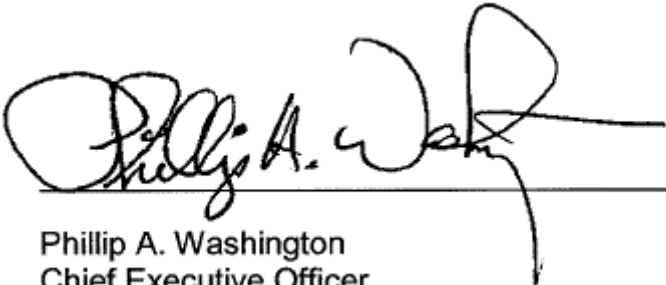
Attachment A: Procurement Summary
Attachment B: DEOD Summary
Attachment C: Proposed Task Order Work List

Prepared By:

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Michael Ratnasingham, Executive Officer, Systems Engineering (213) 418-3440

Reviewed by:

Richard F. Clarke, Chief Program Management Officer (213) 922-7557
Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SYSTEMS ENGINEERING SUPPORT SERVICES / CONTRACT NO. AE47810E0128

1.	Contract Number: AE47810E0128		
2.	Contractor: SECOTrans (Joint Venture of LTK Engineering Services, NBA Engineering Inc., Pacific Railway Enterprises Inc., and Ramos Consulting Services, Inc.).		
3.	Mod. Work Description: Increase the Contract Funding not-to-exceed amount		
4.	Work Description: Systems Engineering Support Services		
5.	The following data is current as of: March 3, 2020		
6.	Contract Completion Status:		Financial Status:
	Award Date:	April 26 2018	Board Approved NTE Amount: \$43,932,000
	Notice to Proceed (NTP):	June 14, 2018	Total Contract Modification Authority (CMA): N/A
	Original Completion Date:	June 14, 2025	Value of Task Orders and Mods. Issued to Date: \$25,081,605
	Current Est. Complete Date:	June 14, 2025	Remaining Board Approved Amount: \$18,850,395
7.	Contract Administrator: Diana Sogomonyan		Telephone Number: (213) 922-7243
8.	Project Manager: Ron Tien		Telephone Number: (213) 418-3445

A. Contract Action Summary

On April 26, 2018, the Board of Directors approved award of Contract No. AE47810E0128 to SECO Trans for Systems Engineering and Support Services, in the amount not-to-exceed \$28,932,000, to supplement Metro's Engineering Department resources in providing engineering services for projects in varying stages of conceptual design, preliminary engineering, final design, support during bidding for construction, and design support during construction (DSDC), including the following: program management, quality, and computer aided design and drafting (CADD); design services concerning train control, communications systems, traction power, and overhead catenary systems (OCS); operational runtime simulation and modeling, corrosion control, system integration, facilities and system-wide electrical, facilities mechanical, facilities plumbing, and facilities fire protection. The base Period of Performance for the Contract is seven (7) years from NTP plus three (3) one-year options to be exercised at Metro's sole discretion.

Seventeen (17) Task Orders have been issued to SECOTrans to date. Four (4) Contract Modifications have been issued for zero dollars.

On February 27, 2020, the Board of Directors authorized the Chief Executive Officer to award a Task Order (TO No. E0128-TO-016) under the subject contract to SECOTrans (Joint Venture) for the preliminary engineering design of the Rail Operations Center (ROC) / Bus Operations Center (BOC) Architectural and Engineering Systems Design Services in the not-to-exceed amount of

\$15,000,000, increasing the previous Board approved NTE amount from \$28,932,000 to a NTE amount of \$43,932,000 for Contract No. AE47810E0128. Task Order No. E0128-TO-016 Scope of Work consists of developing the space and systems design for the ROC and BOC into the Emergency Security Operations Center (ESOC) and is currently pending execution, as cost analysis and negotiations are in progress for completion.

Since this is a multi-year contract, the Chief Program Management Officer and the Project Manager are responsible for budgeting costs in future years, including the exercise of any options. Consequently, funding for the award of the Supplemental Engineering and Support Services Contract was initially requested for the first two years and funding must be requested every two years subsequent to that for future work, contingent upon an updated annual work program and schedule for the period in a form of an Independent Cost Estimate (ICE). The amount of \$43,932,000 is the current NTE amount for the FY '18 –FY '20 period. The total contract amount will be the aggregate value of all task orders negotiated with the Consultant through the term of the contract.

Contract No. AE47810E0128 is a cost plus fixed fee (CPFF) Contract.

B. Cost/Price Analysis

The recommended price for the Task Orders resulting from the recommended increase in funding will be determined to be fair and reasonable based upon fact finding, technical evaluation, cost analysis, and negotiations, before issuing Task Orders to the Consultant. Task Orders will be processed in accordance with Metro’s Acquisition Policy and Procedures. A cost analysis will be performed for each Task Order, taking into consideration the completed Independent Cost Estimate and technical audit, utilizing labor and indirect cost rates already establish in the contract.

The Systems Engineering Services Independent Cost Estimate for the additional NTE amount of \$22,500,000 was developed using the current master schedule, construction estimates, and completed work to date from the Program Management Project Controls department. An estimated cost was determined for each project using past project costs, systems to civil project percentages along with historical rates. Depending on the type of transit project and the complexity, the percentages were derived from the overall construction costs to determine the systems construction and engineering costs. Once the systems engineering costs were estimated, they were distributed across each fiscal year according to the master schedule. Other costs for Maintenance of Way (MOW) support, State of Good Repair and Transit Asset Management, were independently developed with each department.

Cost Schedule Proposals	Independent Cost Estimate	Recommended NTE Amount
Not Required ⁽¹⁾	\$22,500,000 ⁽²⁾	\$22,500,000 ⁽³⁾

⁽¹⁾ A Cost Schedule Proposal amount was not required. This is a Cost Plus Fixed Fee (CPFF) Task Order Contract with no definable level of effort for the Scope of Work. Hourly labor rates, overhead and fee were negotiated for the contract and

determined to be fair and reasonable. Individual future Scopes of Work will be issued on a Task Order basis and executed separately as the work is defined.

- (2) FY '21 NTE amount identified by the ICE for the period starting from July 1, 2020 thru June 30, 2021.
- (3) The recommended NTE amount \$22,500,000 (amounts are rounded) is V/CM's extraction from the Independent Cost Estimate (ICE) for FY '21 period (year three of the contract base period), respectively. Future work will be funded according to an Annual Work Program, on a one-year basis. The total contract amount will be the aggregate value of all task orders negotiated with the Consultant through the term of the contract.

DEOD SUMMARY

SYSTEMS ENGINEERING SUPPORT SERVICES / CONTRACT NO. AE47810E0128

A. Small Business Participation

The Diversity & Economic Opportunity Department (DEOD) established a 15% Disadvantaged Business Enterprise (DBE) goal for this Task Order contract for the participation of DBE certified firms. SECOTrans, a Joint Venture of LTK Engineering Services and three (3) DBE Joint Venture (JV) partners, NBA Engineering, Inc., Pacific Railway Enterprises, Inc., and Ramos Consulting Services, Inc. made a 15% DBE overall commitment for this contract. The overall DBE participation is based on the cumulative value of all task orders issued.

To date, seventeen (17) task orders have been awarded. Based on payments reported, the contract is 23% complete and the cumulative DBE participation of all task orders awarded is 28.76%. SECOTrans is exceeding their DBE commitment by 13.76%.

SECOTrans acknowledges that four (4) DBE firms listed on the team have not been utilized and contends that task orders issued to-date have not contained the scope of work to be provided by those DBE firms. SECOTrans remains committed to utilize all the DBE firms listed on the team, as Metro issues new task orders that include their scopes of work.

Notwithstanding, Metro Project Managers and Contract Administrators will work in conjunction with DEOD to ensure that SECOTrans (JV) remains on schedule to meet or exceed its DBE commitment.

Small Business Commitment	15% DBE	Small Business Participation	28.76% DBE
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	DBE Contractors	Scope of Work	Current Participation
1.	NBA Engineering, Inc. (JV Partner / DBE Prime)	MEP Engineering	5.45%
2.	Pacific Consulting Service, Inc. (JV Partner / DBE Prime)	Railroad Signal and Communications System Design and Engineering	.05%
3.	Ramos Consulting Services (JV Partner / DBE Prime)	Systems Engineering and Support Services	8.76%
4.	Arakelyan Drafting Services, Inc.	Computer Aided Drafting and Design	0.00%
5.	Destination Enterprises, Inc.	Systems Construction Management, Project Management, Inspection Estimating and Scheduling	8.50%
6.	Enabled Enterprises LLC	IT Infrastructure Systems and Network Architecture, Design, Engineering, and Project	0.00%

		Management, Application Development	
7.	Fariba Nation Consulting	Systems Engineering Design	2.15%
8.	Intueor Consulting, Inc.	Systems Engineering CM/DSDC	0.62%
9.	PK Electrical Inc.	Electrical Engineering	0.00%
10.	ROMAR7 LLC	Computer Aided Drafting and Design	0.00%
11.	Triunity Engineering and Management, Inc.	Communications Design, System Integration and Analysis	3.23%
Total Participation			28.76%

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

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable on this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

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

ATTACHMENT C

PROPOSED TASK ORDER WORK

SYSTEMS ENGINEERING SUPPORT SERVICES / CONTRACT NO. AE47810E0128

Mod./Task Order (TO) No.	Description	Status (approved or pending)	Date	Task Order Issued including Mods	Pending TO Mods	Pending TO
N/A	Initial Authorized NTE Funding (\$28,932,000)	Approved	4/26/18	---	---	---
E0128-TO-001	Systems Engineering Support for Crenshaw Project	Approved	7/9/18	\$4,963,761	(\$31,227)	---
E0128-TO-002	Program-wide System Engineering Support Services for Systems Engineering Group	Approved	7/27/18	\$3,089,670	(\$391,092)	---
E0128-TO-003	Overhead Contact Systems (OCS) Support for Maintenance of Wayside Engineering	Approved	9/11/18	\$309,751	(\$69,847)	---
E0128-TO-004	System-wide Electrical Support for Rail and Bus Projects	Approved	9/11/18	\$145,244	(\$11,261)	---
E0128-TO-005	Crenshaw Project Design Services During Construction	Approved	9/12/18	\$161,992	(\$95,532)	---
E0128-TO-006	Rail Systems Engineering Support for New Blue	Approved	10/3/18	\$3,817,827	(\$368,522)	\$471,259

E0128-TO-007	West Santa Ana Branch Systems Support	Approved	10/1/18	\$120,667	(\$41,121)	---
E0128-TO-008	System-wide Operations and Maintenance Plan	Approved	10/10/18	\$798,543	(\$77,672)	---
E0128-TO-009	Division 20 Portal Widening Turnback Project Systems Engineering Support	Approved	10/30/18	\$882,609	(\$40,017)	---
E0128-TO-010	West Santa Ana Branch (WSAB) Project Conceptual Engineering	Approved	11/16/18	\$5,100,555	(\$227,492)	---
E0128-TO-011	East San Fernando Valley (ESFV) Conceptual Engineering	Approved	12/3/18	\$3,862,840	(\$58,686)	---
E0128-TO-012	Metro Blue Line Track and OCS Refurbishment	Approved	3/21/19	\$1,545,042	---	---
E0128-TO-013	Metro Systems Support for Green Line/Crenshaw Operations	Approved	4/10/19	\$262,675	---	---
E0128-TO-014	Metro Red/Purple Line and Regional Connector Operational Simulation Support	Approved	4/25/19	\$677,959	---	\$92,143
E0128-TO-015	Airport Metro Connector Engineering Support	Approved	9/12/19	\$360,138	---	---
E0128-TO-017	Centinela Grade Separation Conceptual Engineering	Approved	11/4/19	\$75,574	---	---
E0128-TO-021	Systems Engineering DSDC Support	Approved	1/29/20	\$319,227	---	---

	for Purple Line Extension Sec. 1					
EO128-00-MOD-00001	Update to Advanced Cost Agreement (LTK, DE, GF and IC)	Approved	9/6/18	\$0.00	---	---
EO128-00-MOD-00002	Updates to Advanced Cost Agreement (Home Office Rates 2019: Atkins, FN, GF, IEI, ICI, RCS)	Approved	12/14/18	\$0.00	---	---
EO128-00-MOD-00003	Revise Spec. Section CP-04 Payment & Invoicing Part C.1 - Invoicing	Approved	1/11/19	\$0.00	---	---
EO128-00-MOD-00004	Direct Hourly Labor Rates Adjusted for 2019	Approved	2/6/19	\$0.00	---	---
	Subtotal Approved TOs			\$26,494,074		
EO128-TO-018	Metro Gold Line Foothills 2B Extension Systems Engineering Support	Pending	TBD	---	---	\$145,500
EO128-TO-019	Metro Gold Line Eastside Phase 2 Conceptual Engineering	Pending	TBD	---	---	\$427,963
EO128-TO-016	Rail Operations Center (ROC) / Bus Operations Center (BOC) Architectural and Engineering Systems Design Services	Pending	TBD	---	---	\$15,000,000
EO128-00-MOD-00005	Administrative Modification to Contract to Update the Advance Cost Agreement	Pending	TBD	---	---	\$0.00

TBD	Future Anticipated Task Orders	Pending	TBD	---	---	\$2,713,530
	Subtotal Pending TOs					\$18,850,395
	Task Orders Approved	---	---	\$26,494,074	---	---
	Task Order Pending Mods	---	---	---	(\$1,412,469)	
	Current Total Contract Value, Including Approved TO, Pending Mods, and Pending TO	---	---	\$43,932,000	---	---
	Increase in Total Authorized Funding for Contract – This Board Action	---	---	---	---	\$22,500,000

SUMMARY	
Board Approved Funding	\$43,932,000
This Board Action	\$22,500,000
New Contract Value	\$66,432,000



Board Report

File #: 2020-0267, File Type: Informational Report

Agenda Number: 24.

**CONSTRUCTION COMMITTEE
MAY 21, 2020**

SUBJECT: TUNNEL ADVISORY PANEL

ACTION: CONTRACT MODIFICATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. Execute Contract Modification No. 11 to Contract No. PS-2020-1055 with **Dr. Geoffrey R. Martin for the continuation of Tunnel Advisory Panel Services**, in an amount not-to-exceed \$910,475, increasing the total contract value from \$2,090,006 to \$3,000,481 and extend the contract from July 1, 2020 to June 30, 2023;
- B. Execute Contract Modification No. 6 to Contract No. PS-8510-2493 with **Dr. Edward J. Cording, for the continuation of Tunnel Advisory Panel Services**, in an amount not-to-exceed \$923,457, increasing the total contract value from \$2,075,778 to \$2,999,235 and extend the contract from July 1, 2020 to June 30, 2023; and
- C. Negotiate and Execute sole source Contract No. PS-1620-1000, with **Dr. Thomas O'Rourke**, for Tunnel Advisory Panel Services, in an amount not-to-exceed \$947,457, from June 1, 2020 to June 30, 2023.

ISSUE

LACMTA is currently planning, designing or constructing rail transit projects with extensive underground engineering and construction that involve complex geotechnical and tunneling issues. Some of the current active projects include the Westside Purple Line Extension Section 1, Section 2 and Section 3 Projects, Regional Connector Transit Corridor Project, Eastside Transit Corridor Phase 2 Project, Sepulveda Transit Corridor Project, West Santa Ana Branch Transit Corridor Project and Crenshaw Northern Extension Project. Los Angeles County has challenging geologic, seismic and tunneling conditions and deep underground station construction, with some through fault rupture zones, tar impregnated soil, toxic gasses, and high concentration of methane. While LACMTA has extensive experience from both staff and engineering consultants, there is the need for a Tunnel Advisory Panel (TAP) to provide expert advice and review of this engineering work. The Tunnel Advisory Panel comprised of Dr. Geoffrey Martin, Dr. Edward Cording and Dr. Thomas O'Rourke, are recognized in the industry and throughout the world as engineering/construction experts in the areas

of geotechnical analyses, tunneling, deep excavation, earthquake engineering and building settlements.

Board approval of the recommendations will allow the continuation of services of two of the current Tunnel Advisory Panel members and replacement for a recently deceased member, Dr. Harvey Parker, with Dr. Thomas O'Rourke to support LACMTA on the Westside Purple Line Extension Section 1, Section 2 and Section 3 Projects, Regional Connector Transit Corridor Project, Eastside Transit Corridor Phase 2 Project, Sepulveda Transit Corridor Project, West Santa Ana Branch Transit Corridor Project and Crenshaw Northern Extension Project. In addition, Board approval of the recommendations will also allow TAP to provide Ad-Hoc services to other projects as needed by Metro staff.

BACKGROUND

The TAP convened in August 1995 in response to questions posed by the Board regarding feasibility of tunneling in Los Angeles ground conditions. Metro contracted with Drs. Dan Eisenstein, Geoffrey Martin and Harvey Parker to determine the feasibility of tunneling in Los Angeles, to assess the effectiveness of Metro's construction program to date, and to recommend any modifications to the current construction program deemed appropriate.

In June 2001, the Board approved two five-year contracts to the members of the TAP in the amount not-to-exceed \$1,167,826 and directed staff to return each year for funding approval. Since that time, the Board has approved funding and extensions to the TAP contracts. Due to Dr. Eisenstein's untimely death in April 2009, Metro management staff decided to procure an additional member for the TAP, Dr. Edward Cording, to provide expert technical services. With Dr. Harvey Parker passing away on May 5, 2020, Metro management staff decided to procure an additional member for the TAP, Dr. Thomas O'Rourke, to provide expert technical services.

DISCUSSION

The TAP members, Drs. Martin and Cording, have been providing advice to all Metro project with underground construction elements. In addition, Dr. O'Rourke has provided Independent Review Services for the Westside Purple Line Extension Project (Contract No. PS85102798) to review and validate the technical approach and conclusions drawn by the Metro's Consultants regarding earthquake faults in the general vicinity of Century City and tunneling through Beverly Hills and Century City. The projects that TAP has been involved with, include extensive underground engineering and construction that involve complex geotechnical and tunneling issues for which the TAP members are uniquely qualified.

In particular, Drs. Martin and Cording have been involved with the Westside Purple Line Extension Section 1, Section 2 and Section 3 Projects and the Regional Connector Transit Corridor Project from planning studies, preliminary and advanced preliminary engineering and development of procurement documents for construction contracts. They will continue to support these projects during active underground excavation and tunneling. In addition, they are involved with the Eastside

Transit Corridor Phase 2 Project and Sepulveda Transit Corridor Project planning studies.

The status of each project is as follows:

Westside Purple Line Extension Project

The Westside Purple Line Extension Project was adopted by the Board and the Final Environmental Impact Report (EIR) was certified in 2012. The project is being designed and constructed in three sections as part of Metro's 30-Year Long Range Transportation Plan. The entire 9-mile project consists of twin-bored tunnels with 7 subway stations which are primarily under Wilshire Boulevard.

As part of the approval process for the project, Metro commissioned a Peer Review Panel by the American Public Transportation Association (APTA) in 2005 to assess the safety of tunneling under Wilshire Boulevard. The Peer Review Panel agreed that it was possible to safely tunnel and operate a subway along the Wilshire Boulevard corridor using current technologies of tunneling, station construction and operation. The Panel also assessed the specific risks associated with tunneling, and recommended a course of action that addressed the following elements of tunnel construction and operation:

- Gas detection
- Mitigation of hazards
- Tunnel boring and station construction
- Safe operation
- Long-term monitoring and verification
- Technical feasibility

As a follow-up to the APTA Peer Review Panel's recommendations, Metro has retained the services of the TAP to provide independent review and monitoring of the following work that is being performed by Metro's engineering consultants and contractors:

- Section 1 Wilshire/Western Station to Wilshire/La Cienega Station (3.92 miles of twin-bored tunnels, 3 subway stations) - The Design/Build Contract (Tunnels, Stations, Systems and Trackwork) Notice-To-Proceed (NTP) was issued in January 2015. The main station box for all 3 underground stations (Wilshire/La Brea Station, Wilshire/Fairfax Station, and Wilshire/La Cienega Station) and the excavation for the Wilshire/Western Shaft has been completed. The appendages for the underground stations have begun and is anticipated to continue through the 2nd Quarter of 2022. Tunneling is expected to be completed by the 4th Quarter of 2020. The TAP will be required to provide expert advice on the tunnel segment designs, geotechnical data which includes gassy ground and tar sands, the daily tunneling reports to monitor progress, potential ground movements and mitigations for gassy ground conditions. The construction of underground stations and tunnels is anticipated to continue till the 3rd Quarter of 2023. Tap services will only be required for the underground and tunnel portion of the project, which is expected to be complete in the 2nd Quarter of 2022.
- Section 2 - Wilshire/La Cienega to Century City Constellation Station (2.59 miles of twin-bored tunnels, 2 subway stations) - The Design/Build Contract (Tunnels, Stations, Systems and

Trackwork) Notice-To-Proceed (NTP) was issued on April 2017. Final Design is almost complete. Construction of the 2 Stations (Century City/Constellation Station and the Wilshire Rodeo Station) began in 3rd Quarter of 2018 and anticipated to be completed by 2nd Quarter of 2025. Tunnel construction is expected to begin 2nd Quarter of 2020 and is expected to be completed by 4th Quarter of 2022. The TAP will be required to continue providing expert advice on the tunnel and station construction, geotechnical conditions encountered, potential ground movements and mitigations for gassy ground conditions. The construction of underground stations and tunnels is anticipated to continue until 1st Quarter of 2024.

- Section 3 - Century City/Constellation Station to Westwood/VA Hospital Station (2.56 miles of twin-bored tunnels, 2 subway stations) - The Design/Build Contract (Tunnels, Stations, Systems and Trackwork) Notice-To-Proceed (NTP) for Tunnel was issued on January 2019 and for Station was issued on May 2019. Final Design is currently in progress. The Tunnel Construction is anticipated to begin in the 2nd Quarter of 2020 and anticipated to be completed by 1st Quarter of the 2022. Station Construction is expected to begin 4th Quarter of 2020 and expected to be completed by 1st Quarter of 2025. The TAP will be required to provide expert advice on the tunnel and station design and construction, especially in the potential fault rupture zones and gassy ground conditions, geotechnical conditions encountered, the daily tunneling reports to monitor progress, potential ground movements and mitigations for gassy ground conditions. The construction of underground stations and tunnels is anticipated to continue until 1st Quarter of 2024.

Regional Connector Transit Corridor Project

The Regional Connector Transit Corridor project was adopted by the Board and the Final EIR was certified in 2012. The project consists of 1.9 miles of twin bored tunnels with three underground stations. The Design/Build Contract NTP was issued in July 2014. Construction of the Tunnels and excavation of the underground stations are complete and station structure construction is in progress. TAP members will continue to provide expert advice for the Regional Connector Project construction quarterly until 2nd quarter of 2021.

Eastside Transit Corridor Project - Phase 2

Metro is preparing Supplemental Draft Environmental Impact Report (DEIR) for the Eastside Transit Corridor Phase 2 Project (Project) that would extend the existing Metro L (Gold) Line from the existing terminus station at Atlantic Boulevard and Pomona Boulevard in East Los Angeles eastern Los Angeles County. The Supplemental DEIR considers the Washington Alternative. The Washington Alternative is approximately 9 miles, of which roughly 3 miles is an underground configuration along Atlantic Boulevard in unincorporated East Los Angeles and then along Smithway Street in the City of Commerce. TAP will be providing expert advice for the Washington Alternative on the following topics amongst others:

- Tunnel alignment design
- Tunnel Portal Locations
- Feasibility of Metro's twin-bore tunnels vs single-bore tunnels

-
- Ground movements and changes the groundwater table associated with proposed methods of excavation and support for cut and cover structures;
 - Ground movements and changes to the groundwater table associated with proposed tunneling methods

It is anticipated that draft environmental studies and advanced conceptual engineering will continue through 2023. The project is identified as one of the four pillar projects and if funding can be secured before the anticipated 2029 funding cycle, design and construction is anticipated to proceed from 2023 to 2028.

Sepulveda Transit Corridor Project

The Sepulveda Transit Corridor Project is included in Metro's 2009 Long-Range Transportation Plan (Metro, 2009), in the Measure R Expenditure Plan as the "San Fernando Valley I-405 Corridor Connection" (Metro, 2008) and in the Measure M Expenditure Plan as the "Sepulveda Pass Transit Corridor" (Metro, 2016a). After the passage of Measure R in 2008, Metro undertook the Sepulveda Pass Corridor Systems Planning Study (Metro, 2012), which evaluated both highway and transit improvements extending from the Valley to LAX. The Measure M Expenditure Plan provides for implementation of the Sepulveda Transit Corridor Project in two phases: the first segment between the San Fernando Valley and the Westside of Los Angeles (Valley-Westside) by 2033-2035 and an extension to LAX (Westside-LAX) by 2057-2059. Under Metro's 28 by 2028 initiative, the Valley-Westside portion of the project is identified for potential acceleration in time for the 2028 Olympic and Paralympic Games in Los Angeles (LA 2028).

The Sepulveda Transit Corridor Feasibility Study was completed and presented to the Board in November/December 2019, and contracts for the environmental phase, including up to two pre-development agreements (PDAs), are currently undergoing procurement. While project alternatives for environmental review have not yet been selected, they may require geotechnical considerations for design and construction of tunnels and underground stations as follows:

- Tunneling through hard rocks
- Tunneling through alluvial soils
- Tunneling through fault zones
- Tunneling with relatively high groundwater pressures
- Mixed-face tunneling with rocks with contrasting strengths (low to very high abrasive, weak to very strong rocks)

Environmental review is anticipated to be completed in 2024.

West Santa Ana Branch (WSAB) Transit Corridor Project

In Summary 2017, Metro formally initiated the environmental process through the original public scoping meetings held for the WSAB Project. In May 2018, the Metro Board selected two Northern Alignment options (Alameda Underground and Downtown Transit Core Underground) that include about 3 miles long tunnels and underground stations. It is anticipated that Draft EIS/EIR will be completed in Winter of 2021 and the Board will select LPA in Spring 2021 for Final EIR/EIS.

Concurrently, Metro is evaluating an early project delivery by 2028 through P3 delivery method.

TAP will be providing expert advice for the underground portions of the WSAB Project on the following topics amongst others:

- Tunnel alignment design
- Tunnel Portal Locations
- Ground movements and changes the groundwater table associated with proposed methods of excavation and support for cut and cover structures;
- Ground movements and changes to the groundwater table associated with proposed tunneling methods

Crenshaw Northern Extension Project

In February 2016, the Crenshaw North Extension project was included in the Chief Executive Officer's "Operation Shovel Ready Initiative" list of projects for advancement through early stages of project planning. The Crenshaw Northern Extension Feasibility Study was initiated in May 2016. Following the passage of Measure M in November 2016, it was further expanded to include Alternatives Analysis. The study analyzed four potential alignment alternatives that could extend the Crenshaw/LAX Line northward from the Metro Expo Line (Line E) to the Metro Purple Line (Line D) on Wilshire Boulevard and the Metro Red Line (Line B) in Hollywood, as well as one alignment alternative that would extend from the Expo Line to the Red/Purple Line Wilshire/Vermont Station, with a connection to Hollywood via transfer to the existing Metro Red Line, but would not serve West Hollywood.

In September 2018, the Metro Board authorized the preparation of an Advanced Alternatives Screening Study with further engineering design and public stakeholder outreach to narrow the range of alternatives to be carried forward in the environmental studies. That study was completed in 2019.

It is anticipated that EIR and Advanced Conceptual Engineering (ACE) will begin in the later part of 2020. TAP will be providing expert advice on the following topics amongst others for the ACE study:

- Tunnel alignment design
- Tunnel Portal Locations
- Tunneling through fault zones and gassy areas
- Ground movements and changes the groundwater table associated with proposed methods of excavation and support for cut and cover structures;
- Ground movements and changes to the groundwater table associated with proposed tunneling methods

In addition to the above Projects, TAP may be asked to provide Ad-Hoc services to other projects as needed by Metro Staff.

All the projects listed above are at critical stages in their respective planning, engineering and construction phases. Extension and additional funding for the TAP contracts are vital and essential to provide continuity that would otherwise be interrupted, should the Board decide to cancel and re-

procure the TAP contracts (a 6 to 9-month process). Furthermore, the history and knowledge of the current designs, geotechnical conditions and construction approaches will present a steep learning curve for a new team of TAP members, which could significantly delay the timely review and input necessary to provide this important layer of independent monitoring and oversight across these complex engineering and construction projects.

TAP members are involved with on-going support relating to third party and project stakeholders' issues, which will require continuation of their services for the future. They have unique knowledge and background on Los Angeles County's underground conditions and intimate knowledge of Metro's past and current engineering and construction projects. Board approval and execution of the Contract Modifications will allow continuation of these services.

DETERMINATION OF SAFETY IMPACT

The Board actions will not have an impact on established safety standards for Metro's engineering and construction projects.

FINANCIAL IMPACT

Funds are included in the FY21 budget for the actions under Regional Connector Transit Corridor Project 860228; Westside Purple Line Extension Section 1 Project 865518; Westside Purple Line Extension Section 2 Project 865522; Westside Purple Line Extension Section 3 Project 865523; Eastside Transit Corridor Phase 2 Project 460232; Sepulveda Transit Corridor Project 460305; West Santa Ana Branch Transit Corridor Project 460201; and Crenshaw Northern Extension Project 405558 under Account No. 50316 (Professional and Technical Services). Since this is a multi-year contract, the Executive Director of Engineering and Construction and the Project Managers will be responsible for cost budgeting in future years.

Impact to Budget

The source of funds for these actions are a combination of Measure R Transit 35%, Measure R Highway 20%, Measure R Admin 1.5%, Measure M Transit 35%, Lease Revenues, Federal Section 5309 New Starts, Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan proceeds, Federal STP, CMAQ, State Proposition 1B, Local Partnership Program, Transit and Intercity Rail Capital Program, Proposition A 35%, Proposition A Admin 5%, Proposition C 25%, and Proposition C Admin 1.5%. These were approved in the capital projects funding plan.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This recommendation supports the Strategic Plan Goal # 5, "*Provide responsive, accountable, and trustworthy governance within the Metro organization.*"

ALTERNATIVES CONSIDERED

Staff has considered the alternative of allowing the current contracts with Dr. Martin, and Dr. Cording to expire and open a procurement notice to solicit applications from potential new members, but

decided to execute the contract modification for the current TAP panel members and negotiate and execute sole source Contract with Dr. O'Rourke for the following reasons:

- Current TAP members Drs. Martin's and Cording's long history and institutional knowledge of Metro together with Drs. Martin's, Cording's and O'Rourke's knowledge of local soil conditions and technical understanding of specific tunnel related issues in general and those pertaining to local conditions in particular would require significant investment in time and resources to replicate even if other equally suitable candidates were found and used in this role,. This would not only incur cost but would significantly reduce the benefit and validity of their advice, while this knowledge and understanding were obtained. This is not recommended as it will leave Metro without the benefit of their extensive local experience, knowledge and expertise and create a void in the required tunneling expertise for a considerable period of time, thereby creating the potential for delays and additional costs to ongoing Metro projects.
- Metro baseline documents include Design Criteria, Standard Drawings, Directive Drawings and Baseline Specifications. These baseline documents were adapted and updated from documents previously utilized for prior projects and are being continuously updated to incorporate the Lessons Learned from the past and current projects or to account for evolving technologies. Current TAP members, Drs. Martin and Cording have observed developments and successes on Metro's current projects that need to be documented and be made available to both current and future Metro projects. Through their involvement with various Metro projects, TAP has also encountered technical and contractual issues that require improvements in Metro baseline documents. Currently, TAP is fully engaged in assisting Metro with this lessons-learned process and accordingly updating the Metro Baseline documents. Executing the contract modification with the current TAP members enable Metro to continue seeking this valuable input from them to update the baseline documents with the lessons learned from their engagements from all the current large projects. This will make the Metro Baseline a set of industry leading document and capture the issues from Metro's past and current Projects.

NEXT STEPS

After Board approval and execution of the Contract Modifications, staff will direct the Tunnel Advisory Panel to continue providing tunnel engineering advice to Metro including supporting the aforementioned projects.

ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - Contract Modification Change Log

Attachment C - DEOD Summary

Prepared by:

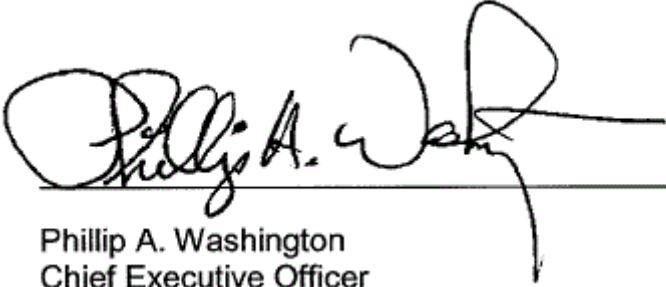
N. Sathi Sathialingam, Senior Director, (213) 922-2261

Androush Danielians, Executive Officer, (213) 922-7598

Reviewed by:

Richard F. Clarke, Chief Program Management Officer, (213) 922-7551

Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY
TUNNEL ADVISORY PANEL
CONTRACT NO. PS-2020-1055

1.	Contract Number: PS-2020-1055		
2.	Contractor: Geoffrey Martin		
3.	Mod. Work Description: Continued Tunnel Advisory Panel support		
4.	Contract Work Description: Tunnel Advisory Panel		
5.	The following data is current as of: March 23, 2020		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	5/1/2001	Contract Award Amount: \$326,000
	Notice to Proceed (NTP):	5/1/2001	Total of Modifications Approved: \$1,764,006
	Original Complete Date:	1/28/2015	Pending Modifications (including this action): \$910,475
	Current Est. Complete Date:	6/30/2020	Current Contract Value (with this action): \$3,000,481
7.	Contract Administrator: Tim Clark		Telephone Number: (323) 900-2110
8.	Project Manager: Androush Danielians		Telephone Number: (213) 922-7598

TUNNEL ADVISORY PANEL
CONTRACT NO. PS-8510-2493

1.	Contract Number: PS-8510-2493		
2.	Contractor: Edward Cording		
3.	Mod. Work Description: Continued Tunnel Advisory Panel support		
4.	Contract Work Description: Tunnel Advisory Panel		
5.	The following data is current as of: April 16, 2020		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	1/29/2010	Contract Award Amount: \$1,225,000
	Notice to Proceed (NTP):	1/29/2010	Total of Modifications Approved: \$850,778
	Original Complete Date:	1/28/2015	Pending Modifications (including this action): \$923,457
	Current Est. Complete Date:	6/30/2020	Current Contract Value (with this action): \$2,999,235
7.	Contract Administrator: Tim Clark		Telephone Number: (323) 900-2110
8.	Project Manager: Androush Danielians		Telephone Number: (213) 922-7598

**TUNNEL ADVISORY PANEL
CONTRACT NO. PS-1620-1000**

1.	Contract Number: TBD	
2.	Recommended Vendor: Dr. O'Rourke	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input checked="" type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: N/A	
	B. Advertised/Publicized: N/A	
	C. Pre-proposal/Pre-Bid Conference: N/A	
	D. Proposals/Bids Due: N/A	
	E. Pre-Qualification Completed: TBD	
	F. Conflict of Interest Form Submitted to Ethics: TBD	
	G. Protest Period End Date: N/A	
5.	Solicitations Picked up/Downloaded: N/A	Bids/Proposals Received: N/A
6.	Contract Administrator: Eva Rodriguez	Telephone Number: (323)900-2111
7.	Project Manager: Androush Danielians	Telephone Number: (213) 922-7598

A. Procurement Background

This Board Action is to approve modifications in support of continued Tunnel Advisory Panel (TAP) support by Dr. Martin and Dr. Cording and award a sole source contract to Dr. O'Rourke.

Dr. Thomas O'Rourke is nationally and internationally recognized expert in the field of tunnels, seismology, geology, structures and Fault Rupture Deformation. Dr. O'Rourke is the Thomas R. Briggs Professor of Engineering, School of Civil & Environmental Engineering at Cornell University. His teaching and professional practice include geotechnical engineering for earth retention systems, foundations, and soil/structure interaction; earthquake engineering; underground construction technology, and engineering of large, geographically distributed systems such as water supplies, gas and liquid fuel systems, electric power, and transportation facilities. He has authored or co-authored over 340 publications on geotechnical, underground, earthquake engineering, and impact of extreme events on civil infrastructure.

Dr. O'Rourke was part of the Independent Review Panel convened by Metro CEO in September 2011 for the Westside Purple Line Extension Project (Contract No. PS85102798) to review and validate the technical approach and conclusions drawn by the Metro's

Consultants regarding earthquake faults in the general vicinity of Century City or tunneling through Beverly Hills and Century City.

On May 1, 2001, Contract No. PS-2020-1055 was awarded to Geoffrey Martin in the amount of \$326,000. On January 28, 2010, and PS-8510-2493 was awarded to Edward Cording, in the amount of \$1,225,000. The Board also authorized additional Modifications increasing the contract value and extending the period of performance to June 30, 2020. This Board Action is to approve the continuation of services of the TAP in support of Metro on various projects. Los Angeles County has challenging geologic and tunneling conditions and deep underground station construction, with some through tar impregnated soil, toxic gasses, and high concentration of methane. The TAP members, comprised of Dr. Geoffrey Martin, Dr. Edward Cording, and Dr. O'Rourke are recognized in the industry and throughout the world as engineering/construction experts in the areas of geotechnical analyses, tunneling, deep excavation, earthquake engineering and building settlements.

The proposed contract actions will be processed in accordance with Metro's Acquisition Policy and the contract type for each contract is a Labor Hour Contract.

B. Cost/Price Analysis

The existing individual Labor Hour contracts contain a fixed, negotiated labor rate of \$250 per hour which was established in 2015. Negotiations have resulted in the individual hourly rates for each contract being increased to \$300 per hour plus travel expenses. The Metro ICE is based on a labor rate (direct cost, overhead, and profit) of \$327.40 in the first year of the extension with escalation up to \$347.00 in the third year. The recommended amounts for the Modifications have determined fair and reasonable upon cost/price analysis, fact-finding, technical analysis and negotiations. The recommended not-to-exceed amount for the Contract with Dr. O'Rourke contains the same \$300 per hour plus travel expenses rates as the existing TAP contracts.

CONTRACT NO. PS-2020-1055

Modification	Metro ICE	Not-To-Exceed Amount
No. 11 – Increase Contract Value and extend Contract to June 30, 2023	\$1,077,963	\$910,475

CONTRACT NO. PS-8510-2493

Modification	Metro ICE	Not-To-Exceed Amount
No. 8 – Increase Contract Value and extend Contract to June 30, 2023	\$1,030,944	\$923,457

CONTRACT NO. PS-1620-1000

Award	Metro ICE	Not-To-Exceed Amount
Contract from June 1, 2020 to June 30, 2023	\$1,058,739	\$947,457

CONTRACT MODIFICATION/CHANGE LOG**TUNNEL ADVISORY PANEL****CONTRACT NO. PS-2020-1055**

Mod. No.	Original Contract		
	Original Contract	5/1/2001	\$326,000
1-4	Increase unit rate and extend period of performance to June 30, 2010	09/06/02-05/11/09	\$0
5	Increase unit rate and extend period of performance to January 28, 2015	1/29/10	\$875,000
6	Extend period of performance to June 30, 2015	1/9/15	\$0
7	Increase contract value and extend period of performance to July 30, 2015	6/22/15	\$28,915
8	Increase contract value and extend period of performance to August 31, 2015	7/17/15	\$28,915
9	Increase unit rate and extend period of performance September 30, 2015	8/10/15	\$28,915
10	Increase contract value and extend period of performance to June 30, 2020	10/1/15	\$802,261
11	Increase unit rate, contract value, extend period of performance to June 30, 2023	Pending Board Approval	\$910,475
	Total:		\$3,000,481

CONTRACT NO. PS-8510-2493

Mod. No.	Original Contract		
	Original Contract	1/29/10	\$1,225,000
1	Extend period of performance to June 30, 2015	1/9/15	\$0
2	Increase contract value and extend period of performance to July 30, 2015	6/22/15	\$28,915
3	Increase contract value and extend period of performance to August 31, 2015	7/17/15	\$28,915
4	Increase contract value and extend period of performance to September 30, 2015	8/10/15	\$28,915
5	Increase contract value and extend period of performance to June 30, 2020	10/12/15	\$764,033
6	Increase unit rate, contract value, extend period of performance to June 30, 2023	Pending Board Approval	\$923,457
	Total:		\$2,999,235

DEOD SUMMARY

TUNNEL ADVISORY PANEL

CONTRACT NOS. PS-2020-1055, PS-8510-2493 & PS-1620-1000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) goal for this sole source panel due to the lack of subcontracting opportunities. It was expected that Prime Contractors Geoffrey R. Martin, Dr. Edward J. Cording and Thomas O'Rourke would perform work with its own workforces.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to these modifications.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to these Contracts. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.



Board Report

File #: 2020-0283, File Type: Informational Report

Agenda Number: 25.

CONSTRUCTION COMMITTEE MAY 21, 2020

SUBJECT: PROGRAM MANAGEMENT SUPPORT SERVICES

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE:

- A. An increase in authorized funding for Contract No. AE35279 with Kal Krishnan Consulting Services/Triunity Engineering and Management Joint Venture (KTJV), for pending and future Contract Work Orders to provide Program Management Support Services (PMSS) in an amount not-to-exceed \$12,041,501, increasing the current authorized funding limit from \$51,306,204 to \$63,347,705 through FY21;
- B. The Chief Program Management Officer or designee to execute individual Contract Work Orders (CWOs) and Contract Modifications within the Board approved contract funding amount.

ISSUE

In June 2017, the Board approved awarding a five-year cost reimbursable fixed fee Contract No. AE35279, plus one two-year option, to KTJV, a DBE Prime Joint Venture, for Program Management support services for not-to-exceed \$90,809,070. This created the largest small business led consultant services contract at Metro. The Board action provided initial funding not-to-exceed \$24,970,960 through the end of FY19 as part of a multiyear contract with an anticipated five-year base contract value of \$63,347,705 plus \$27,461,365 for one two-year option, for a combined total amount not-to-exceed \$90,809,070 for seven years.

In April 2019, the Board approved two additional years of funding increasing the total not-to-exceed amount to \$51,306,204 for the first four years of the contract. However, staff has awarded CWO/Modifications totaling \$48,733,372.30 and has approximately \$2,572,831.70 of the authorized funding remaining. Attachment B lists the PMSS contract CWO/Modifications executed to date. Use of the Contract exceeded staff expectation especially considering the acceleration of several Major Transit Construction Measure M projects. However, due to COVID-19 financial impacts on projects, Metro staff has evaluated opportunities to reduce consultant support across all projects and are proposing a decrease in the current rate of consultant spending on the PMSS contract. Therefore,

Metro staff is now seeking to increase authorized funding of the Contract by \$12,041,501, for a new funding limit not-to-exceed \$63,347,705.

DISCUSSION

Metro is currently undertaking the largest transportation construction program in the nation. This creates an unprecedented challenge to project delivery. Recognizing that staffing is a key factor in project delivery, Program Management is committed to developing strengths in its capacity and capability to ensure the multi-billion-dollar capital program can be successfully managed. Attachment E lists the projects that the Contract currently supports and those we anticipate it will support over the duration of the PMSS contract.

Metro staff works with KTJV to scale staff up or down depending on Metro's transit, highway, regional rail and other capital improvement program needs. With the volume of work that accompanies Metro's fast-paced Capital program, the PMSS Contract utilization to assist Program Management in securing enough qualified, flexible resources across a broad spectrum of disciplines in a timely manner needed to manage and support delivery of Board approved projects has increased significantly. Therefore, as the needs of the projects increase to allow Metro efficient and effective staff augmentation and technical expertise, the needs of the authorized funding increase as well.

Scope

To support the aggressive project implementation schedule for delivering Metro's Capital Program, close coordination and expertise across multidisciplines are required in the following eight key functions: project management, program management, project delivery development support, project control, estimating, configuration management, project management and other technical training, and Project Management Information System (PMIS) support services. In addition, the scope has allowed for contract administration and small business contract compliance support assisting Vendor/Contract Management (V/CM) to efficiently provide sufficient staffing needed to perform V/CM support activities.

Combining all the above functions together into one contract has allowed for a better coordinated and more efficient allocation of resources for Metro than would be possible under a series of separate contracts. To date, the PMSS contract has succeeded in fulfilling the consultant staffing demand on a program-wide level on various multiple transit, regional rail, highway, and other capital improvement projects.

Contract funds are authorized by issuing separate CWOs for various projects using labor classifications and rates set forth in the contract, with funding solely supported through the Life of Project budget. This method of contracting results in more efficient cost and schedule management, since CWOs and modifications to existing CWOs are negotiated and issued as additional work is identified. For each CWO or modification, Metro prepares a scope of work and an estimate of hours, and KTJV subsequently provides a proposal. Metro and KTJV will fact-find and negotiate the hours if there is a discrepancy. After agreement, the CWO is issued and the work proceeds.

Consultant Services

To date, KTJV has completed and is continuing staff augmentation assignments on major transit construction projects, miscellaneous capital project, security and safety projects, rail and bus facility improvements, wayside systems, soundwalls, Regional Rail, Highway, and Environmental projects; Metro Gateway staff augmentation for program-wide support; specialty assignments such as constructability review, risk assessment support, procedure writing and training, Project Management Information System (PMIS), lessons learned/Best Management Practices implementation, WIN LA, DBE Commercially Useful Functions, and P3 capability development support; and other projects as necessary (see Attachments B and E). KTJV has been responsive and works with Metro staff to provide the qualified resources necessary for Program Management to meet the aggressive implementation schedule for delivering Metro's Capital Program.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's capital projects.

FINANCIAL IMPACT

The not-to-exceed award value is based on the anticipated level of services. Each individual CWOs will be funded from the associated projects' budget, within the limits of Board authorization. Staff is cognizant of the Continuation Resolution of FY20 Budget for Q1 of FY2021; the FY2021 budget will be brought to the Board for consideration in a September 2020 Board meeting. The project managers, cost managers and Chief Program Management Officer will be accountable for budgeting the cost in future years, including cost associated with exercising the option.

Impact to Budget

There will be no additional impact beyond the approved annual budget or respective project's authorized LOP amounts, where applicable. Most of the projects are funded with multiple sources of funds: federal and state grants, federal loans, bonds and local sales taxes. Much of local sales taxes are eligible for bus and rail operations and capital improvements. These funds are programmed to state of good repair projects and to augment the costs of mega projects, where eligible and appropriate.

ALTERNATIVES CONSIDERED

The Board may elect to discontinue using KTJV for PMSS. Staff does not recommend this alternative as the Program Management capital projects are in various degrees of completion and the loss of staff would cause these projects to be significantly impacted.

Another alternative would be to hire Metro staff to perform the required services. This alternative is also not recommended since the intent of the PMSS is to augment Metro staff in terms of technical expertise and availability of personnel. PMSS are typically required on a periodic or short-term basis to accommodate for peak workloads or specific tasks over the life of the projects. Further, for some

projects, the specific technical expertise required may not be available within the ranks of Metro staff, whereas the KTJV consultant can provide the technical expertise on an as-needed basis.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports Strategic Plan Goal #1 - Provide high-quality mobility options that enable people to spend less time traveling. This will be accomplished by providing program-wide support services to assist in delivering multiple capital projects on time and on budget while increasing opportunities for small business development and innovation.

NEXT STEPS

Upon Board approval, staff will continue to issue Contract Work Orders, as needed.

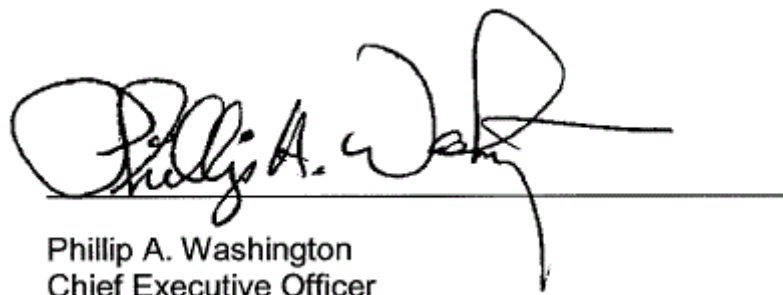
ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - Contract Work Order/Modification Log
- Attachment C - DEOD Summary
- Attachment D - Current Support Provided by Project Category
- Attachment E - Current and Anticipated List of Projects

Prepared by: Brian Boudreau, Sr. Executive Officer, Program Control, (213) 922-2474

Reviewed by:

Richard F. Clarke, Chief Program Management Officer, (213) 922-7447
Debra Avila, Chief Vendor/Contracts Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

PROGRAM MANAGEMENT SUPPORT SERVICES (PMSS)

1.	Contract Number: AE35279		
2.	Contractor: Kal Krishnan Consulting Services/Triunity Engineering and Management Joint Venture (KTJV)		
3.	Mod. Work Description: Funding for additional Contract Work Orders for projects listed in Attachment D – Anticipated List of Projects		
4.	Contract Work Description: Program Management Support Services (PMSS)		
5.	The following data is current as of: April 16, 2020		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	June 22, 2017	Original authorized funding limit: \$ 24,970,960.00
	Contract Executed Date:	August 18, 2017	Total of Contract Work Orders and Modifications Approved: \$ 48,733,372.30
	Original Completion Date:	August 18, 2022	Proposed and Pending Contract Work Orders and Modifications (including this action): \$ 14,614,332.70
	Current Est. Completion Date:	August 18, 2022	Total authorized funding limit (with this action): \$ 63,347,705.00
7.	Contract Administrator: Robert Romanowski		Telephone Number: (213) 922-2633
8.	Project Manager: Mayumi Lyon		Telephone Number: (213) 922-4020

A. Procurement Background

On June 22, 2017, the Board approved award of Contract No. AE35279 to Kal Krishnan Consulting Services/Triunity Engineering and Management Joint Venture (KTJV) for five years with funding approval through FY2019 in the amount of \$24,970,960.00, for the Scope of Services included in the Program Management Support Services (PMSS) Contract.

On April 25, 2019, the Board approved additional funding, increasing the total not-to-exceed amount to \$51,306,204 for the Work.

Attachment B shows that Forty Contract Work Orders and their Modifications have been issued to date to authorize and/or delete work, totaling \$48,733,372.30.

This Board Action is to approve an increase to the total authorized funding for Contract No. AE35279 in support of additional Program Management Support Services (PMSS) needs.

B. Cost/Price Analysis

All direct labor rates as modified by the annual economic price adjustment and the negotiated fixed fee factor for this cost reimbursable plus fixed fee contract remain unchanged from the original contract.

A fair and reasonable price for all future Contract Work Orders will be determined based upon fact finding, scope definition, technical evaluation, cost analysis, and negotiations before issuing work to the Consultant. Contract Work Orders will be processed in accordance with Procurement Policies and Procedures, within the additional funding requested.

CONTRACT WORK ORDER (CWO)/MODIFICATION LOG

Project	CWO #	Description / Working Title	CWO/Mod. Value	Date Executed	PoP Ends
Program Control Admin.	1	Metro requires Program Management Support Services (PMSS) in support of delivering Metro's transit, highway, regional rail, and other capital improvement projects on-time and within budget. The Consultant shall allocate technical expertise and proper resources in a timely manner, manage the contract budget, prepare forms and submittals as required, in addition to control, monitor, report on all costs, expenditures, schedule, and understand the contract requirements.	\$645,684.71	8/31/2017	6/30/2018
	1.1	Modify to add Risk Assessment Advisor: This modification adds James Zack Consulting, LLC to the CWO.	\$16,350.00	11/15/2017	6/30/2018
	1.2	Modify City of Los Angeles Guidelines for LA Metro Projects: Program Management requires additional personnel with different technical expertise be added to perform priority policies and procedures.	\$57,629.36	1/23/2018	6/30/2018
	1.3	Extend PoP for FY19 (SOW same as original)	\$724,833.00	6/20/2018	6/30/2019
	1.4	Vehicle Lease for DEO, Cost Estimating for travel to the Integrated Project Management Offices (IPMOs) and other work-related locations with a not to exceed yearly mileage of 12,000 miles.	\$9,303.00	8/24/2018	8/18/2019
	1.5	Add Facilitator/ Instructor for Program Management Leadership Team Workshop: facilitate a leadership team workshop of up to 30 Executive and Deputy Executive level attendees; curriculum focused on communication/trust, provide all handouts, conduct and facilitate the workshop; staff interviews; workshop; post workshop meeting debrief to discuss consultant recommendations.	\$24,164.51	10/9/2018	6/30/2019
	1.6	Vehicles lease for three 24-month vehicle leases for New Blue projects and two 24-month vehicle leases for Soundwall 11 for travel to work-related locations with a not to exceed yearly mileage of 12,000 miles per vehicle; monthly costs for lease, insurance, registration, and vehicle safety equipment and allocation for fuel and maintenance were included in the calculated NTE final value.	\$135,884.50	10/9/2018	10/30/2020
	1.7	Parking: add monthly parking passes for each leased vehicle. Three 24-month passes for New Blue projects and two 24-month passes for Soundwall 11.	\$10,230.00	11/15/2018	10/30/2020
	1.8	Extend PoP for FY20 (SOW same as original).	\$762,538.00	8/5/2019	6/30/2020
	1.9	Vehicle lease extension for Cost Estimating.	\$8,867.00	10/29/2020	9/30/2020
1.10	Sr. Program Management Analyst support for Project Control tasks such as coordinating meetings, tracking budgets, creating and dispersing reports, etc.	\$95,405.00	10/18/2020	6/30/2020	
ESOC	2	Constructability Evaluation and Risk Assessment Review: The Contractor shall perform a Constructability Evaluation and Risk Assessment relating to the Emergency Security Operation Center (ESOC) Project, particularly as it relates to transferred risks.	\$114,797.62	9/18/2017	11/17/2017
	2.1	Contractor shall perform a Constructability Evaluation and Risk Assessment relating to the ESOC, particularly as it relates to transferred risks.	\$19,205.95	10/27/2017	11/17/2017
	2.2	Constructability Evaluation and Risk Assessment Review Mod Time Extension through December 17, 2017. The SOW remains unchanged; no increase to the contract value.	\$0.00	11/15/2017	1/31/2018
	2.3	Constructability Evaluation and Risk Assessment Review - modify CWO to add Other Direct Costs (ODCs) -Travel, for previously approved personnel of Consultant to attend one review meeting with Metro staff; extend Period of Performance (PoP) through January 31, 2018	\$1,631.00	12/8/2017	1/31/2018
	2.4	Extend PoP; scope of services remains unchanged and there is no increase to the contract value.	\$0.00	1/30/2018	3/31/2018
	2.5	Extend PoP; scope of services remains unchanged and there is no increase to the contract value.	\$0.00	3/13/2018	6/30/2018
	2.6	CWO Closeout	(\$12,847.75)	3/18/2020	3/30/2020
Project Delivery Development	3	Project Delivery Development Support - Overall advice/assistance are required on federal and project implementation issues that arise on Metro's major capital, including assistance on National Environmental Policy Act (NEPA) issues and documents, and litigation issues involving or affecting Metro projects.	\$300,000.00	9/12/2017	6/30/2018
	3.1	Modification to replace fixed "Rate Per Hour" for the Project Delivery & Contract Development Technical Advisor with "Direct Rate Range".	\$0.00	10/26/2017	10/26/2017
	3.2	Extend PoP; continuation of support services for FY19; scope of services remains unchanged.	\$224,561.00	6/29/2018	6/30/2019
	3.3	Modification to add funding to support Project Delivery Development for Program Control, WPLE 2, WPLE 3	\$116,880.00	6/28/2019	6/30/2020
Crenshaw/LAX	4	Cost Estimating Support Services for Crenshaw/LAX and Southwestern Yard (SWY) Projects: services to assist Metro to perform estimating functions; support development of budgets for the projects, support design optimization and constructability of the projects, and support administration of both project contracts.	\$1,057,745.06	9/15/2017	6/30/2018
	4.1	Modification to add construction management support/Sr. Configuration Management Analyst on Division 16 SWY Maintenance Project.	\$121,907.44	11/13/2017	6/30/2018
	4.2	Cost Estimating Support Services for Crenshaw/LAX and SW Yard Projects - Add Personnel: Metro requires additional Sr. Cost Estimator to support Crenshaw/LAX and Division 16 Southwestern Yard Maintenance Projects and has designated an existing Sr. Cost Estimator with increased complexity of tasks justifying a rate increase.	\$148,972.69	12/22/2017	6/30/2018

CONTRACT WORK ORDER (CWO)/MODIFICATION LOG

Crenshaw LAX SWY	4.3	Crenshaw/LAX & Southwestern Yard Projects - Scheduling Support: addition of an experienced scheduler to perform schedule analysis tasks.	\$27,093.33	2/1/2018	6/30/2018
	4.4	Addition of estimating consultants including Sr. Estimator and Cost Estimating Manager to support existing scope; funding already in existence through original CWO.	\$0.00	5/4/2018	6/30/2018
	4.5	Extend PoP: continuation of support services through FY19.	\$1,804,836.00	6/25/2018	6/30/2019
	4.6	Addition of experienced scheduling support services for Crenshaw/LAX project to perform schedule analysis tasks.	\$218,069.00	9/5/2018	6/30/2019
	4.7	Addition of Sr. Configuration Management Analyst to perform schedule analysis tasks.	\$68,268.00	9/5/2018	6/30/2019
	4.8	Extend PoP: continuation of support services through FY20.	\$1,716,859.00	6/17/2019	6/30/2020
	4.9	Additional cost schedule analyst staff support services for Crenshaw and Eastside Light Rail Access.	\$70,633.00	3/3/2020	7/31/2020
PMIS	5	Project Management Information System (PMIS) Ongoing Support: Contractor shall provide technical expertise to perform ongoing PMIS supporting, including hosting and on-going technical and implementation support as required to support existing systems.	\$451,825.10	9/29/2017	6/30/2018
	5.1	Modify Contract Work Order AE35279-005 to add Other Direct Costs (ODCs) - Travel for previously approved personnel of listed subconsultant.	\$20,376.00	12/5/2017	6/30/2018
	5.2	Additional services required to supplement the existing CWO to provide technical expertise in resolving complex issues; actual level of efforts required for ongoing support has exceeded the planned level.	\$102,439.27	2/5/2018	6/30/2018
	5.3	Extend PoP; ongoing PMIS supporting, including hosting and on-going technical and implementation support as required to support existing systems.C29	\$599,106.00	6/20/2018	6/30/2019
	5.4	Revise sub-consultant SOW to include programming support and troubleshooting for the new Oracle Primavera Unifier application; support to assist in system design and testing for cost forecasting functionality development that will eventually replace the EcoSys application.	\$74,826.00	1/18/2019	6/30/2019
	5.5	Extend PoP; ongoing PMIS supporting, including hosting and on-going technical and implementation support as required to support existing systems.	\$1,925,894.00	7/31/2019	7/31/2020
	5.6	PMIS FY20 Oracle Unifier system requires system enhancements specific to Metro's application.	\$402,779.00	2/12/2020	6/30/2020
WPLE 1	6	WPLE 1 Project requires scheduling, cost engineering, and estimating support services.	\$919,952.06	9/19/2017	6/30/2018
	6.1	Extend PoP; continuation of services in original SOW.	\$722,326.00	6/21/2018	6/30/2019
	6.2	Substitute Sr. Cost Estimator at a lower rate.	(\$18,551.58)	11/13/2018	6/30/2019
	6.3	Extend PoP; continuation of cost estimating services and addition of cost/schedule analyst support for FY20.	\$1,363,051.00	6/10/2019	6/30/2020
WPLE 2	7	WPLE 2 Project requires scheduling, cost engineering, and estimating support services.	\$627,112.16	9/19/2017	6/30/2018
	7.1	Consultant shall substitute one Sr. Cost Estimator provided by its approved, listed Subconsultant to support Westside Purple Line Section 2.	(\$7,637.35)	12/27/2017	6/30/2018
	7.2	Eliminate Sr. Cost/Schedule Analyst Position: Based on the current Project needs, the Sr. Cost/Schedule Analyst Position is no longer required.	(\$234,501.26)	1/29/2018	6/30/2018
	7.3	Extend PoP; continuation of cost estimating support services for FY19.	\$504,336.00	6/29/2018	6/30/2019
	7.4	Extend PoP; continuation of cost estimating support services for FY20.	\$1,096,360.00	7/9/2019	6/30/2020
Environmental Compliance and Sustainability	8	The Environmental Compliance and Sustainability Program requires support services, including project controls and estimating support.	\$457,408.18	9/13/2017	6/30/2018
	8.1	Consultant to add more personnel that were inadvertently omitted from the list of approved personnel of approved, listed subconsultant, Lenax Construction.	\$0.00	11/20/2017	6/30/2018
	8.2	Additional personnel inadvertently omitted from the list of approved personnel of approved, listed subconsultant, Lenax Construction.	\$0.00	12/13/2017	6/30/2018
	8.3	Extend PoP; continued support services including project controls and estimating services through FY19.	\$630,051.00	6/20/2018	6/30/2019
	8.4	Substitute Personnel at different rates.	(\$41,041.95)	2/11/2019	6/30/2019
	8.5	Environmental compliance and Sustainability strategic team alignment workshop.	\$10,435.00	3/28/2010	6/30/2019
	8.6	Extend PoP; continued support services including project controls and estimating service through FY20.	\$194,044.00	6/27/2019	6/30/2020
	8.7	Additional funding Environmental Compliance estimating services in FY20.	\$99,384.00	12/23/2019	6/30/2020
Regional Connector	9	Regional Connector Transit Project requires program control support services, specifically, estimating support.	\$368,983.64	9/19/2017	6/30/2018
	9.1	Extend PoP; continue Regional Connector Project program control support services, specifically, estimating support through FY19.	\$50,396.00	6/8/2018	6/30/2019
	9.2	Additional Sr Cost Estimator for four months.	\$77,257.00	9/6/2018	12/31/2018
	9.3	Addition of project scheduling and cost engineering support services.	\$179,912.00	12/7/2018	6/30/2019
	9.4	Continuation of the cost estimating services with no cost increase through FY19.	\$0.00	3/8/2019	6/30/2019
	9.5	Extend PoP; continue Regional Connector Project program control support services, specifically, estimating support through FY20.	\$917,271.00	6/25/2019	6/30/2020
PMIS Enhancement Analysis	10	PMIS Unifier Prototype: Current Contract Management 14 of the PMIS is obsolete. Immediate analysis is needed to conduct initial assessments of the system needs and enhancements required to replace the current CM14 and EcoSys cost system.	\$245,165.16	9/21/2017	12/31/2017

CONTRACT WORK ORDER (CWO)/MODIFICATION LOG

DBE Contract Compliance	11	Contract Compliance Support Services/Diversity & Economic Opportunity Department (DEOD) requires contract compliance monitoring support services consistent with DOT 49 Code of Federal Regulations (CFR) Part 26 and Metro's DBE, SBE and/or DVBE program.	\$634,678.54	10/13/2017	6/30/2018
	11.1	Addition of Personnel - No Cost: add personnel to provide interim support as required.	\$0.00	2/28/2018	6/30/2018
	11.2	Extend PoP; there is no increase to the contract value.	\$0.00	6/6/2018	8/31/2018
	11.3	Addition of personnel to provide interim support as required; Senior Contract Compliance Officers to provide contract compliance monitoring support services consistent with DOT 49 CFR Part 26 and Metro's DBE Program.	\$1,117,360.00	9/6/2018	6/30/2019
	11.4	Add approved replacement personnel at a lower rate in the direct labor categories of Senior Contract Compliance Officer.	(\$9,449.00)	12/12/2018	6/30/2019
	11.5	Extend PoP; Sr. Consultant Compliance Officer consultant services to provide contract compliance monitoring support services through FY20.	\$1,544,380.00	8/1/2019	7/31/2020
	11.6	Addition of consultant staff to provide interim compliance monitoring support on various non-mega projects.	\$82,358.00	3/30/2020	7/31/2020
PMIS Enhancement Implementation	12	PMIS Enhancement Implementation: three phase implementation support needed to conduct the enhancements, required to replace the current CM14 and EcoSys cost system.	\$1,919,948.74	11/30/2017	12/31/2018
	12.1	Additional PMIS Implementation Support and Solution Architect: full-time position shall assist in the process transition from use of EcoSys for cost reporting to Oracle Primavera Unifier.	\$235,827.00	12/4/2018	6/30/2019
	12.2	PoP Extension and Additional Work: support extended outreach to business process support groups and projects during design to solicit engagement and acceptance and provide additional pilot testing/training; allowance for design changes that are likely to result from the extended outreach; change includes more comprehensive support efforts during the initial go live period for training, technical support, and minor design changes.	\$379,785.00	1/3/2019	6/30/2019
	12.3	Additional Pilot Testing: Consultant shall perform extended outreach sessions; extended Pilot Testing Period; re-development of business processes: redesign configuration management business processes from prior process used in CM14 to streamline processes and obtain staff buy-in; ongoing support for post go-live period; redesign Cost Engineer cost forecasting business processes and reporting.	\$499,224.00	2/26/2019	6/30/2019
	12.4	PMIS Unifier Implementation additional data migration testing.	\$149,997.44	5/8/2019	6/30/2019
	12.5	PMIS Unifier Implementation additional data migration testing - PoP extension.	\$0.00	6/27/2019	9/30/2019
	12.6	Closeout of CWO 12 and modifications.	(\$17,766.44)	1/31/2020	1/31/2020
Construction Market Analysis	13	Contractor to conduct a construction market analysis to assess key factors of the Los Angeles area construction market.	\$266,134.23	11/15/2017	4/30/2018
	13.1	Extend PoP; no cost increase.	\$0.00	5/7/2018	6/31/2018
WSAB	14	West Santa Ana Branch (WSAB) P3 Technical Advisory Support - technical advisory in support of evaluation of various P3 project delivery alternatives and subsequent development of a procurement package for a P3 contractor for the WSAB Light Rail Project.	\$203,546.08	12/28/2017	3/15/2018
	14.1	Extend PoP; no cost increase continuation of P3 technical advisory services.	\$0.00	2/28/2018	6/30/2018
	14.2	Additional personnel with different technical expertise be added to provide technical support required on the WSAB, specifically with a project workshop.	\$4,465.00	3/15/2018	6/30/2018
	14.3	Additional personnel with different technical expertise be added to provide partnering/workshop facilitation support required on the WSAB Project.	\$6,857.06	4/20/2018	6/30/2018
	14.4	Extend PoP: continuation of P3 technical advisory support through FY19.	\$1,548,668.00	7/10/2018	6/30/2019
	14.5	Additional Sr. Configuration Management Analyst and Sr. Cost Estimator personnel with technical expertise.	\$80,930.00	9/17/2018	6/30/2019
	14.6	Additional Project Delivery and Contract Development Advisor	\$119,677.00	11/5/2018	6/30/2019
	14.7	P3 Performance Requirements Development - consultant expertise to develop a set of comprehensive performance requirements and solicitation technical packages that will be used during all phases of the P3. Consultants range from Project Delivery and Contract Development/Compliance functions to Sr. Cost Estimator to maintain schedule for the P3 solicitation package.	\$1,561,563.15	1/3/2019	6/30/2019
	14.8	Closeout CWO 14, Modifications 2 and 3. The modification of these documents is a reduction of \$44,055.06. Reduction of hours in CWO 14, Mods 4 and 7 in the combined amount of \$955,944.57 = \$1M total.	(\$1,000,000.00)	3/8/2019	3/8/2019
	14.9	Extend PoP: continuation of project delivery and contract development support.	\$0.00	6/25/2019	7/31/2019
	14.10	Extend PoP: continuation of project delivery and contract development support through FY20.	\$4,092,522.00	7/31/2019	7/31/2020
14.11	Modify CWO 14, and its Modifications to add Project Management support, reduce the Contract Value by \$1,500,000, and extend the PoP through December 31, 2020.	(\$1,500,000.00)	4/1/2020	12/31/2020	
Patsaouras Busway Station	15	PMSS on Bus & Rail Capital and Soundwall Projects: Metro requires program control support services in accordance with the scope of work on Bus and Rail capital, and Soundwall projects.	\$96,072.21	12/13/2017	6/30/2018
	15.1	Extend PoP; continued program control support services on Bus and Rail Capital, and Soundwall Projects, as previously outlined in CWO No.15.	\$133,588.00	6/6/2018	6/30/2019
	15.2	Extend PoP services and PoP through FY20.	\$392,608.00	6/27/2019	7/31/2020

CONTRACT WORK ORDER (CWO)/MODIFICATION LOG

	15.3	Project Manager services necessary for providing oversight support in design review, construction oversight reporting, preparing technical documents, various office related support services.	\$126,051.00	3/11/2020	7/31/2020
I405 Closeout	16	I-405 Widening Project Closeout Support: Metro requires project close-out support in accordance with the scope of work on the 1-405 project.	\$391,957.37	12/27/2017	12/31/2018
	16.1	Continue I-405 Widening Project Closeout Support through 3/2019.	\$206,241.00	10/4/2019	3/31/2019
	16.2	Continue I-405 Widening Project Closeout Support through 12/2019.	\$274,951.00	3/15/2019	12/31/2019
	16.3	Continue I-405 Widening Project Closeout Support through 12/2020.	\$95,098.00	1/9/2020	12/31/2020
WPLE 3	17	PMSS Project Management Support WPLE3: Metro requires project support services in accordance with the scope of work on Westside Purple Line Extension Section 3 Project.	\$286,495.87	1/18/2018	6/30/2018
	17.1	Extend PoP; continuation of support services for FY19.	\$781,400.00	6/29/2018	6/30/2019
	17.2	Add Sr. Cost Estimator and Sr. Configuration Mgmt Analyst for WPLE	\$258,335.00	2/14/2019	6/30/2020
	17.3	Extend PoP; continuation of services for cost estimating, cost/schedule analyst, and configuration management analyst through FY20.	\$1,168,236.00	8/22/2019	6/30/2020
	17.4	Addition of a cost estimator through FY20.	\$104,905.00	11/7/2019	6/30/2020
WIN LA	18	Workforce Initiative Now (WIN/LA): requires technical support for the development and implementation of the Workforce Initiative Now.	\$111,514.88	1/29/2018	6/30/2018
	18.1	Extend POP; continued technical support for the development of WinLA in FY19.	\$173,096.67	6/21/2018	6/30/2019
	18.2	No cost staff replacement.	\$0.00	1/14/2019	6/30/2019
	18.3	Extend POP; continued technical support for the development of WinLA in FY20.	\$10,380.00	6/25/2019	9/30/2019
	18.4	WIN LA CWO Closeout.	(\$3,096.54)	3/11/2020	3/11/2020
Capital Improvement/ SGR Projects	19	Metro requires project support services on State of Good Repair (SGR) and Other Capital Projects.	\$112,974.65	2/8/2018	6/30/2018
	19.1	Extend PoP; continued technical support and revise CWO 19 to include project support services to MBL Track & Systems, which was not part of the original CWO.	\$307,665.00	6/5/2018	6/30/2019
	19.2	Extend PoP; continued support services on SGR and other Capital projects through CY19.	\$179,319.00	6/27/2019	12/31/2019
	19.3	No Cost PoP Extension.	\$0.00	2/11/2020	7/31/2020
Risk Mgmt Support Services	20	Risk Management Support Services: assist the Metro Risk Manager in the facilitation of cost and schedule risk analysis of major capital projects, ensure the requirements of the Metro Risk Management procedure are implemented correctly, work with project control staff in developing and managing project risk registers as required by Metro, record and analyze risk trends, and develop the risk sections of PMP.	\$99,436.00	9/21/2018	6/30/2019
	20.1	Extend PoP; continued support of Risk Management services.	\$98,039.00	6/27/2019	6/30/2020
	20.2	Extend PoP and reduction of services.	(\$132,391.98)	2/11/2020	7/31/2020
Schedule Claims Support	21	Schedule Claims Avoidance Support Services - Regional Connector Project requires schedule claims avoidance support specifically in the areas of analysis of early completion schedules, and recommendations for possible resolution of current and actual claims.	\$50,205.05	10/12/2018	12/31/2019
Regional Rail	22	Regional Rail: project management controls services in support of the Metro Regional Rail Program to prepare project controls deliverables.	\$95,595.00	9/24/2018	6/30/2019
	22.1	Extend PoP of existing scope of work through September 30, 2019.	\$0.00	6/27/2019	9/30/2019
	22.2	Regional Rail CWO Closeout.	(\$83,212.71)	3/3/2020	3/3/2020
New Blue	23	New Blue Projects - provide cost estimating, scheduling and configuration management support services for Construction Contracts.	\$640,047.00	9/24/2018	6/30/2019
	23.1	Extend PoP; continued services through FY20.	\$1,444,762.00	6/24/2019	6/30/2020
	23.2	Add a cost estimator position within the current approved CWO budget.	\$0.00	8/28/2019	6/30/2020
	23.3	Reduction in services for New Blue CWO.	(\$963,174.00)	4/7/2020	12/31/2020
Eastside Access	24	PMSS for Eastside Access Improvement Project: provide technical resources, knowledge, and expertise to perform project manager tasks, such as coordination of design meetings, quality control review on design submittals, communication & coordination with Metro design consultants, prepare monthly project status reports, review/update project design schedule, prepare monthly FT A status reports.	\$237,268.00	9/25/2018	12/31/2019
	24.1	Extend PoP for continued services in FY20.	\$27,579.00	7/19/2019	8/31/2019
	24.2	Extend PoP for continued services through CY20.	\$62,031.00	8/30/2019	12/31/2019
East San Fernando Valley	25	East San Fernando Valley (ESFV): requires Project Delivery & Contract Devel. Advisors with technical expertise be added to provide support required on the ESFV Project.	\$428,282.00	11/9/2018	6/30/2019
	25.1	No cost PoP extension.	\$0.00	6/26/2019	7/31/2019
	25.2	Extend PoP; continued support through FY20 and add services for P3 VfM Cost Data and Risk Assessment report.	\$1,136,791.00	7/17/2019	7/31/2020
Program wide activities	26	Contract Submittal Review: Consultant shall review contract language for submittal requirements and assess where City of LA submittal reviews can be streamlined; review contract language and assess where changes can be made that result in an even clearer and more equitable risk sharing between Metro and the contractor with regard to timely LA City submittal turn-around.	\$99,436.00	1/9/2019	6/30/2019
	26.1	Resident Engineer Manual: Consultants shall draft revised RE Manual for review by Metro, incorporate review comments, and submit final RE Manual revision to Metro Configuration Management for issuance.	\$99,668.00	1/14/2019	6/30/2019
	26.2	Extend PoP and add p/t Administrative Analyst.	\$7,800.00	6/20/2019	6/30/2020

CONTRACT WORK ORDER (CWO)/MODIFICATION LOG

	26.3	Addition of a Technical Program Manager for third party support.	\$214,199.00	9/23/2019	6/30/2020
	26.4	Consultant to research and create Progressive Design White Paper.	\$21,899.00	2/18/2020	6/30/2020
DRB Document Prep	27	DRB Presentation Support: WPLE 1 Project requires review, critique, comments on Metro position paper, created by Metro's project team including claims consultants, and associated documents prepared for the DRB hearing on the Fairfax Station subgrade; develop and present a formal presentation to the DRB on behalf of Metro; and represent Metro throughout the DRB process.	\$52,250.00	1/18/2019	6/30/2019
Sepulveda	28	Sepulveda Corridor Project P3 Technical Advisory Support: provide Project Delivery & Contract Development Advisor, Cost/Schedule Analyst, and Project Manager during the development of P3 procurement documents.	\$154,133.00	2/27/2019	6/30/2019
	28.1	Extend PoP through July 2019.	\$0.00	6/26/2019	7/31/2019
	28.2	Extend PoP; continue support for Sepulveda Corridor project P3 technical advisory support through FY20.	\$3,295,965.00	7/19/2019	7/31/2020
DBE Commercially Useful Function	29	Consultant to evaluate the management, supervision, and performance actions of DBE firms working on FTA-funded and/or State/local funded contracts to determine if DBE firms are performing commercial useful function (CUF).	\$50,456.18	5/13/2019	6/30/2019
	29.1	Extend PoP.	\$0.00	7/1/2019	7/15/2019
	29.2	Extend PoP; continue CUF site visits and related assignments for Contract Compliance monitoring services through FY20.	\$539,940.00	7/11/2019	6/30/2020
Centinela/Florence	30	Cost Estimating support services for the Centinela/Florence Grade Separation project through FY20.	\$26,130.00	5/24/2019	6/30/2020
I-5 N Capacity Enhancement	31	Consultant to provide PMSS for I-5 N capacity enhancement project in the form of executive oversight and direction for the highway construction program.	\$387,797.00	7/8/2019	6/30/2020
	31.1	Consultant to provide an independent constructability review for the I-5 HOV and Truck lanes project.	\$813,752.00	8/26/2019	6/30/2020
	31.2	Consultant to provide additional Sr. Program Management Analyst support to manage the development and implementation of computer monitoring systems for cost and schedule performance on the project.	\$711,659.00	11/4/2019	6/30/2020
Estimating Database	32	Consultant to assist in the development of the Metro in-house Timberline database to assist the Cost Estimating department with preparing estimates (Task 1 - assess in-house historical cost data and develop a work plan).	\$46,799.00	9/16/2019	1/31/2020
	32.1	Consultant to assist in the development of the Metro in-house Timberline database to assist the Cost Estimating department with preparing estimates (Task 2 and 3 - set up the database, then organize, update and test the database).	\$149,997.00	2/18/2020	7/31/2020
Construction Market Analysis	33	Consultant to conduct a construction market analysis to assess key factors of the Los Angeles area construction market.	\$149,854.00	10/3/2019	6/30/2020
Admin. Multiple Capital Projects	34	PMSS Administrative Analyst Services for Orange Line Enroute Bus Charging Stations, Division 1 Improvement, Division 11 & 22 Roofing Replacement / ROC Roofing Replacement, and Cesar Chavez Transit Pavilion.	\$94,497.00	11/18/2019	6/30/2020
Soundwall Package 11	35	Provide construction scheduling support to the Program Management Department in support of the Sound Wall Package 11 project.	\$44,220.00	1/13/2020	6/30/2020
Division 20 Portal Widening turnback	36	Provide Cost Estimating support services for Construction including technical resources, knowledge, and expertise to perform Cost Estimating tasks.	\$200,406.00	1/9/2020	6/30/2020
WIN LA Mapping	37	Provide technical support to DEOD staff to develop technical process mapping for integration of activities related to the second phase of WIN-LA program implementation. support DEOD staff with the integration of the private employer (prime contractor) business requirements, processes and workflow into the WIN-LA software system.	\$67,386.00	1/24/2020	6/30/2020
Airport Metro Connector	38	Provide Cost Estimating and Configuration Management support services for the Airport Metro Connector project.	\$190,635.00	2/11/2020	7/31/2020
OL BRT Improvement Project	39	Provide Project Manager support for Metro Orange Line Bus Rapid Transit Improvement during FY2020 and FY2021.	\$491,224.00	3/3/2020	6/30/2021
Green Line Extension	40	Provide assistance to Metro to manage performance of capital projects including all aspects of technical support, schedules, budget, funding, grants management, staffing, agency reporting, and prioritization of work.	\$325,058.00	4/9/2020	12/31/2020
		Total of CWOs and Modifications:	\$48,733,372.30		
		Board Authorized:	\$51,306,204.00		
		Authorized Funds Remaining:	\$2,572,831.70		

DEOD SUMMARY

**PROGRAM MANAGEMENT SUPPORT SERVICES (PMSS)
CONTRACT NO AE35279**

A. Small Business Participation

Kal Krishnan Consulting Services/Triunity Engineering & Management Joint Venture (KTJV), a DBE Prime made a 73.31% DBE commitment for this contract. The overall DBE participation for this contract based on the cumulative value of all Contract Work Orders issued.

To date, forty (40) Contract Work Orders and their Modifications have been awarded. Based on payments reported, the contract is 55% complete and the cumulative DBE participation of all Work Orders awarded is 66.83%, representing a 6.48% shortfall.

KTJV contends, as concurred by Metro's Project Manager, that scope of work earmarked for non-DBE firms has grown significantly compared to the original cost proposal. However, KTJV does anticipate a growth in core Program and Project Control services, to be performed by DBE firms, that will increase KTJV's level of DBE participation.

KTJV acknowledges the lack of utilization of DBE firms on the team and offered the following update to address the under-utilization. The Omni Group/OGX recently completed work on the WIN LA process mapping project in March but has yet to bill KTJV. Additionally, while Metro has not yet identified a need and/or scope of work for MBI, KTJV will engage the firm once such a request is made.

Notwithstanding, Metro Project Managers and Contract Administrators will work in conjunction with DEOD to ensure that KTJV remains on schedule to meet or exceed its DBE commitments. Metro staff will request that KTJV submit an updated mitigation plan if KTJV is not on track to meet its small business commitment. Additionally, key stakeholders associated with the contract have been provided access to Metro's tracking and monitoring system to ensure that all parties are actively tracking Small Business progress.

SMALL BUSINESS COMMITMENT	73.31% DBE	SMALL BUSINESS PARTICIPATION	66.83% DBE
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	DBE Contractors	Scope of Work	Ethnicity	Current Participation
1.	KKCS (JV Partner / DBE Prime)	Program Management, Project Control	Subcontinent Asian	26.59%

2.	Triunity (JV Partner / DBE Prime)	Program Management	African American	14.40%
3.	Armand Resource Group, Inc.	Contract Compliance	African American	6.73%
4.	Lenax Construction Services, Inc.	Cost Estimating & Project Controls Support Services	Caucasian Female	7.31%
5.	LKG-CMC, Inc.	Doc. Control, Configuration Mgmt. Admin.	Caucasian Female	2.02%
6.	MBI Media	Public Outreach and Meeting Facilitation	Caucasian Female	TBD
7.	The Omni Group, LLC	Project Program Management Support Services	African American	TBD
8.	Ramos Consulting Services	Project Controls & Estimating	Hispanic American	2.38%
9.	Stellar Services, Inc.	Program Management Information Systems	Asian Pacific American	1.08%
10.	Arkadia & Associates	Project Management Support Services	Caucasian Female	0.70%
11.	Destination Enterprises	Program Management Support Services	Caucasian Female	5.62%
Total DBE Participation				66.83%

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

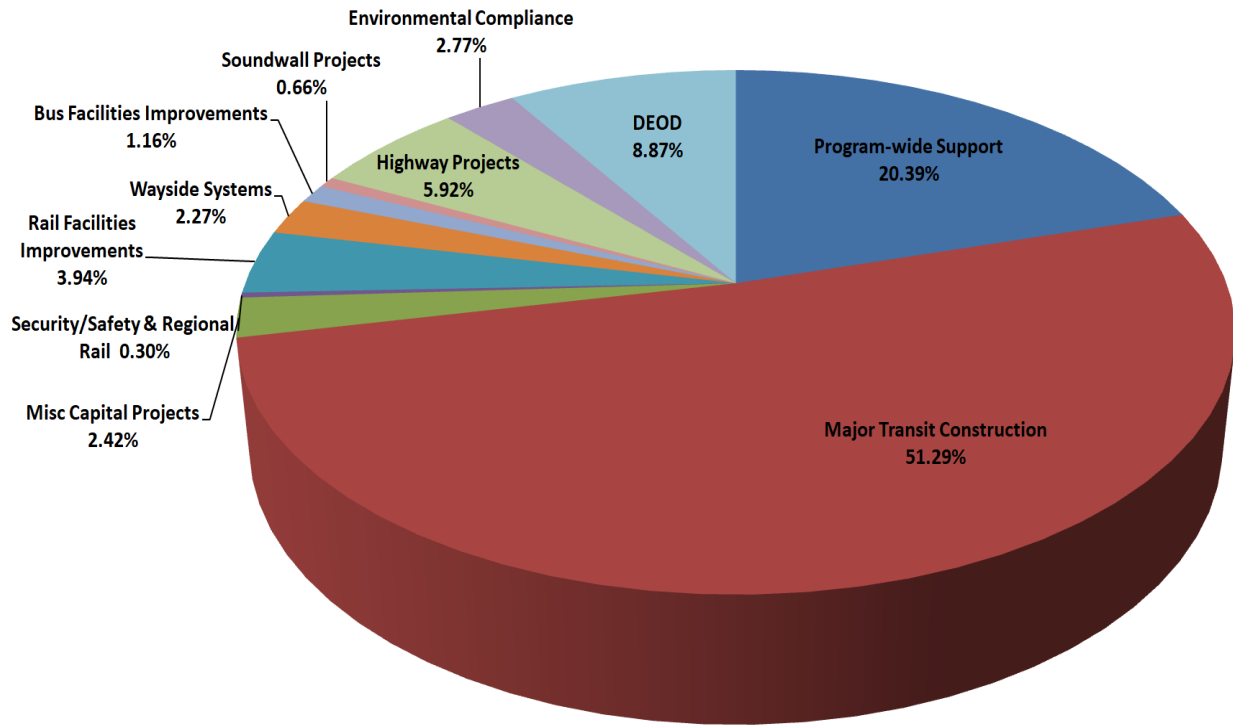
C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

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

CURRENT SUPPORT PROVIDED BY PROJECT CATEGORY



CURRENT AND ANTICIPATED LIST OF PROJECTS

Program-wide Support

Measure M Program Support*
 Measure R Program Support*
 Policy/Procedure Streamlining*
 Project Management Information System*
 Implementation of Construction Management Best Practices*
 Estimating Database Development*
 Construction Risk Management*
 Public Private Partnerships*

Major Transit Construction

Crenshaw/LAX Light Rail Transit Construction*
 Regional Connector Construction*
 Westside Purple Line Extension Section 1 Project*
 Westside Purple Line Extension Section 2 Project*
 Westside Purple Line Extension Section 3 Project*
 Gold Line Foothill Extension Phase 2B Project
 Orange Line Bus Rapid Transit Improvements*
 West Santa Ana Branch Transit Project*
 East San Fernando Valley Transit Project*
 Sepulveda Transit Corridor*

Misc. Capital Projects

Division 20 Portal Widening Turnback Facility*
 Division 22 Paint and Body Shop
 Rail to Rail Corridor Active Transportation Connector
 Metro Eastside Access Improvement Projects*
 Airport Metro Connector*
 Green line Extension to Torrance*
 Rail to River*
 Centinela Grade Crossing*

Security/Safety

Metro Gold Line I-210 Barrier Replacement Phase I
 Metro Emergency Security Operations Center*
 Metro ROC/BOC*

Rail Facilities Improvement

Southwestern Maintenance Yard*
 Systemwide Elevator Installation (Vertical Systems)
 Light Rail Transit Freeway Stations Sound Enclosures
 Metro Red Line Civic Center Station
 Escalator/Elevator
 Modernization
 Willowbrook/Rosa Parks Station Improvement*
 Rail to River Planning*

Wayside Systems

Metro Blue Line Pedestrian Safety Enhancement at Grade Crossing
 Metro Blue Line Track and System Refurbishment*
 Metro Blue Line Signal System Rehabilitation*

Bus Facilities Improvements

Bus Rapid Transit Freeway Station Sound Enclosure
 Metro Silver Line Improvements and Upgrades
 Division 1 Improvements*
 Bus Facility Maintenance Improvement
 Enhancements Phase II & III
 Patsaouras Plaza Bus Station Construction*
 Rail Facility Improvement*
 Cesar Chavez Transit Pavillion*

Regional Rail

LINK US Project*
 Doran Street and Broadway/Brazil Safety and Access Project
 Brighton to Roxford Double Track Project
 Rosecrans/Marquardt Grade Separation Project*
 Lone Hill to White Double Track

Soundwall Projects

Soundwall Package 10
 Soundwall Package 11*

Highway

I-5 South – HOV project SR 14 to Parker Road*
 I-405 HOV Widening*
 Other Highway projects, as required

Environmental Compliance Program

Fuel Storage Tank Program*
 Soil Remediation*
 Energy Conservative Initiative Project*
 Sustainability Environmental Compliance*
 Carbon Emission Greenhouse*
 Sustainability Design Guide*

Diversity & Economic Opportunity in Construction

DBE Commercially Useful Function*
 Workforce Initiative Now (WIN LA)*

*Project is currently utilizing the PMSS Contract



Board Report

File #: 2020-0286, **File Type:** Informational Report

Agenda Number: 26.

**CONSTRUCTION COMMITTEE
MAY 21, 2020**

**SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE
CONTRACT**

ACTION: CONTRACT MODIFICATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. EXERCISE a one-year extension option for Task Order Contract No. AE36687 with Mott MacDonald Group for Supplemental Engineering Services for Engineering Design of Rail and Highway Transportation Projects, extending the period of performance from June 22, 2020 through June 22, 2021.
- B. INCREASE the total contract value for Contract No. AE36687 with Mott MacDonald Group for Supplemental Engineering Services for Engineering Design for Rail and Highway Transportation Projects not-to-exceed \$2,500,000 increasing the total contract value from \$15,000,000 to \$17,500,000. Work will only be authorized by specific task orders, funded by specific project budgets.
- C. NEGOTIATE and EXECUTE Task Orders and modifications within the Board approved contract amount.

ISSUE

On June 15, 2017, the board approved a three-year contract for Supplemental Engineering Services with Mott MacDonald Group for Engineering and Design of Rail and Highway Transportation Projects with an option for two one-year extensions and \$5,000,000 increase in the budget. The current requested board action is for approval to exercise a one-year option for extension and \$2,500,000 increase in the budget authority of the Contract, to \$17,500,000 total. The approval of this one-year option will provide the time and budget to continue the Engineering and Design services that are currently underway.

BACKGROUND

The Mott MacDonald Group has been providing engineering and design support services on several projects through various task orders. One of these task orders includes preliminary engineering services for the Metro Orange Line BRT Improvements consisting of Grade Separation at Sepulveda and Van Nuys Stations and the Orange Line Gating for at-grade crossings. The preliminary engineering design of the Metro Orange Line BRT Improvements is not yet complete and will require additional time and budget.

This is a Task Order contract. Funding for the tasks to be performed in this contract comes from already approved project budgets.

DISCUSSION

Metro Engineering has developed this SES Contract to supplement Metro's engineering efforts. The SES consultant team has the capability of supporting its engineering group's technical disciplines.

Examples of Task Orders issued under this contract to date are:

- Preliminary engineering services for Metro Orange Line BRT Improvements
- MBL Special Trackwork Design
- MBL Fare Gates Addition Project
- MGL Track 2 Near Harbor Freeway Station Survey
- Expo/Crenshaw West Side Portal Conceptual Design
- Metro Expo II MSE Walls 726 and 727 Survey Monitoring Program
- MOL Colfax Recycled Water Project
- Conceptual Design/Planning in Support of the Metrolink SB/Gold Line Task Force
- MGL ROW and Easement Survey for Immediate Remedial Measures

The technical proficiencies required for this SES contract (PS8510-3002) are very comprehensive and include all engineering and specialties disciplines which Metro may require in support of its projects. These include the following:

General Services include:

1. Preliminary and Final Design of Transportation including Rail and Highway Projects.
2. Design Review Support & Coordination for CIP projects & other special projects.
3. Production of Project Status, Technical and Engineering Reports.
4. Design of Structures, Stations and Guideways.

5. Facilities/Systems Interface Coordination.
6. Surveying Services.
7. Cost Estimating.
8. Intra/Inter Disciplinary Coordination.
9. Scheduling and Cost Management for Task Orders.
10. Post Design Services including; Bid and Design Support during Construction.
11. Administrative Tasks associated with General Engineering Support Services.

Specific Rail Facilities and Third-Party Utility Design Services include:

12. Engineering Services for Review and Approval of Metro Projects.
13. Development of Technical Specifications, Drawings and Reference Documents.
14. Engineering Services for support of Metro Rail Operations and Maintenance.
15. Land Surveying and Legal Description.
16. Potholing.
17. Geotechnical Services, Borings and Reports.
18. Civil & Utility Engineering
19. Drainage Design and Hydraulic Calculations.
20. Structural Engineering.
21. Bridges and Aerial Structure Design.
22. Tunnels, Trenches and Underground Station Design.
23. Track Work Engineering, Plan and Profile.
24. CPUC Grade Crossing Application including attendance to field diagnostic meetings.
25. Yard and Shop Rail Maintenance Facility Design.
26. Architectural Design.
27. Station Site Development.
28. Urban Design Integration.
29. Landscape Architecture.
30. Traffic Control Plans including Striping Drawings and Signal Drawings.
31. CADD and MicroStation Drawings.
32. BIM Services and Training.
33. Project Presentation including Three-Dimensional Rendering.
34. Corrosion Control Measures and Cathodic Protection.
35. Noise and Vibration Analysis including Site Visits, Measurement and Mitigation.
36. Any other engineering or technical discipline not listed above that is ancillary to the Statement of Work and consistent with the general requirements of an approved Task Order.
37. HVAC design including HVAC and emergency ventilation.
38. Electrical Design.
39. Plumbing Design.
40. Fire Protection Design.
41. Value Engineering and Cost Reduction.

DETERMINATION OF SAFETY IMPACT

This Board Action will not have an impact on established safety standards for Metro's Construction Projects.

FINANCIAL IMPACT

The funding for these services is included in the approved FY20 budget in various Capital Projects. Task Orders will be issued and funded from the associated future fiscal year and Life-of-Project (LOP) budgets. The funding source differs depending on the individual project. These activities will remain within the approved LOP for each project. The specialized design for the MOL Grade Separation requires additional Task Orders which would exceed the current Not to Exceed Amount.

Since this is a multi-year contract, the cost center manager and Chief Officer, Program Management, will be accountable for the budgeting the cost of the annual work program.

IMPACT TO BUDGET

The funding for the task orders is provided by the specific project requiring the services. The source for these funds is in line with the respective projects' funding plans and fund sources may consist of federal and/or state grants as well as local funds. Many of the state of good repair projects are funded with local funding sources that are eligible for rail and bus operations.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This will promote Metro's strategic goal of expanding the transportation network and increasing mobility for all users.

ALTERNATIVES CONSIDERED

The Board may elect to not exercise this option with Mott MacDonald for the Supplemental Engineering Services. Staff does not recommend this alternative as the design they are assigned are in various degrees of design development, construction or the cost and schedule for each of these projects would be significantly impacted. Specifically, Mott MacDonald is performing preliminary engineering services for the Metro Orange Line BRT which requires extensive amount of coordination between Sepulveda Transit Corridor and East San Fernando Valley Transit Corridor (ESVFTC) projects as both projects have a station at the Metro Orange Line. The interface between ESVFTC terminus station with the proposed aerial station for Metro Orange Line improvements at Van Nuys is particularly important and requires extensive coordination between the two design teams to create a seamless circulation and transfer for the patrons using the station. Mott MacDonald has been performing this task, but the preliminary engineering design of the Metro Orange Line BRT Improvements is not yet complete and will require additional time and budget. Not exercising this option will adversely affect these three important projects. In addition, the cost of procuring another consultant in a timely manner would create potential delay to existing contracts where they are currently supporting Metro Engineering staff to design these projects.

Another alternative would be to hire Metro staff to perform the required services. This alternative is

also not recommended as it would be difficult to obtain qualified staff in a timely manner, and the services are only required on a periodic basis for peak workloads or specific tasks over the life of the project.

NEXT STEPS

Upon Board approval, staff will issue a Contract Modification to exercise a one-year option, and issue Contract Task Orders, as needed.

ATTACHMENTS

- Attachment A: Procurement Summary
Attachment B: Contract Task Order/Modification Log
Attachment C: DEOD Summary

Prepared by:

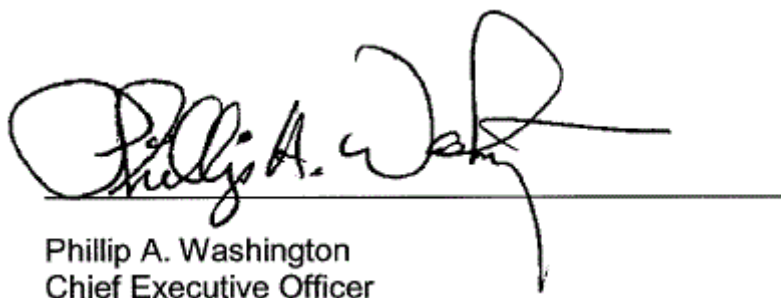
Androush Danielians, Executive Officer, Engineering (213) 922-7598

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Reviewed by:

Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051

Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SUPPLEMENTAL ENGINEERING SERVICES (SES)

1.	Contract Number: AE36687		
2.	Contractor: Mott MacDonald Group		
3.	Mod. Work Description: Funding for additional Contract Task Orders for MOL BRT Improvements		
4.	Contract Work Description: Supplemental Engineering Services(SES)		
5.	The following data is current as of: April 28, 2020		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	June 22, 2017	Original authorized funding limit: \$ 15,000,000.00
	Contract Executed Date:	July 17, 2017	Total of Contract Work Orders and Modifications Approved: \$ 12,734,877.70
	Original Completion Date:	June 22, 2020	Proposed and Pending Contract Work Orders and Modifications (including this action): \$ 4,765,122.30
	Current Est. Completion Date:	June 22, 2022	Total authorized funding limit (with this action): \$ 17,500,000.00
7.	Contract Administrator: Robert Romanowski		Telephone Number: (213) 922-2633
8.	Project Manager: Aspet Davidian		Telephone Number: (213) 922-5258

A. Procurement Background

On June 22, 2017, the Board approved award of Contract No. AE36687 Mott MacDonald Group for three years with funding approval through FY2020 in the amount of \$15,000,000, for the Scope of Work included in the Supplemental Engineering Services (SES) Contract.

Attachment B shows that Twenty-Two Contract Task Orders and their Modifications have been issued to date to authorize and/or delete work, totaling \$12,734,877.70.

This Board Action is to approve an increase to the total authorized funding for Contract No. AE36687 in support of additional Supplemental Engineering Services (SES) needs.

B. Cost/Price Analysis

All direct labor rates as modified by the annual economic price adjustment and the negotiated fixed fee factor for this cost reimbursable plus fixed fee contract remain unchanged from the original contract.

A fair and reasonable price for all future Contract Work Orders will be determined based upon fact finding, scope definition, technical evaluation, cost analysis, and negotiations before issuing work to the Consultant. Contract Work Orders will be processed in accordance with Procurement Policies and Procedures, within the additional funding requested.

CONTRACT TASK ORDER / MODIFICATION LOG

Task Order Number	Task Order Title	Task Order Award Amt	Approved Mods	Proposed and Pending Task Orders / Mods	Revised Task Order Award Amt	Completion Date	Status
AE36687-001	MOL Improvements Project - Preliminary Engineering Services	\$5,000,000.00	\$5,600,000.00	\$0.00	\$10,600,000.00	6/30/2021	Approved
AE36687-001-MOD-TBD	MOL Improvements Project - Design Development of Sepulveda and Van Nuys Stations Grade Separation and Gated Crossings			\$3,207,769.30	\$3,207,769.30	6/20/2022	<u>Pending</u>
AE36687-001A	MOL BRT Improvements - Engineering Support for Outreach Program	\$112,200.00	\$0.00	\$0.00	\$112,200.00	03/31/2018	Approved
AE36687-002	Supplemental Engineering Services - Geotechnical Engineering Support	\$240,000.00	(\$163,916.80)	\$0.00	\$76,083.20	02/28/2018	Approved
AE36687-003	Sepulveda Blvd Survey at Ovada PI	\$18,916.33	\$0.00	\$0.00	\$18,916.33	09/15/2017	Approved
AE36687-004	Cancelled	\$0.00	\$0.00	\$0.00	\$0.00		Cancelled
AE36687-005	MBL Special Trackwork Design including DSDC	\$382,261.43	\$491,910.00	\$0.00	\$874,171.43	7/31/2020	Approved
AE36687-006	Virginia TPSS Survey Services	\$10,297.88	\$0.00	\$0.00	\$10,297.88	12/31/2017	Approved
AE36687-007	Blue Line Fare Gates Addition Project Site Services	\$14,149.60	\$0.00	\$0.00	\$14,149.60	01/31/2018	Approved
AE36687-009	Lankershim Depot Park Topographic Survey Services	\$3,375.20	\$0.00	\$0.00	\$3,375.20	01/31/2018	Approved
AE36687-010	Lankershim Depot Park Landscape Architect - Design Review Services	\$7,265.22	\$14,594.57	\$0.00	\$21,859.79	01/31/2018	Approved
AE36687-011	Metro Blue Line Del Amo Station Survey	\$10,533.00	\$0.00	\$0.00	\$10,533.00	06/30/2018	Approved
AE36687-012	Legal Description Review for Vista Canyon/City of Santa Clarita Development Project	\$8,800.00	\$5,859.25	\$0.00	\$14,659.25	06/30/2018	Approved
AE36687-013	Metro Green Line Track 2 Near Harbor Freeway Station Survey	\$33,901.00	\$2,349.00	\$0.00	\$36,250.00	09/30/2019	Approved
AE36687-014	Expo/Crenshaw West Side Portal Conceptual Design	\$124,983.00	\$9,000.00	\$0.00	\$133,983.00	06/30/2019	Approved

CONTRACT TASK ORDER / MODIFICATION LOG

Task Order Number	Task Order Title	Task Order Award Amt	Approved Mods	Proposed and Pending Task Orders / Mods	Revised Task Order Award Amt	Completion Date	Status
AE36687-015	Metro Expo II Line MSE Walls 726 and 727 Survey Monitoring Program	\$55,759.00	\$0.00	\$0.00	\$55,759.00	03/31/2020	Approved
AE36687-016	Metro Expo II Line MSE Walls 726 and 727 - Top of Rails Survey	\$32,914.00	\$0.00	\$0.00	\$32,914.00	03/31/2020	Approved
AE36687-017	Metro Orange Line Colfax Recycled Water Project	\$76,738.00	\$46,438.00	\$79,413.00	\$202,589.00	6/30/2021	<u>Pending</u>
AE36687-018	Washington Satellite Yard Topographic Survey for the New Blue Project	\$18,033.00	\$7,389.02	\$0.00	\$25,422.02	03/31/2019	Approved
AE36687-019	Conceptual Design/Planning in Support of the Metrolink SB/Gold Line Task Force	\$443,999.00	\$0.00	\$0.00	\$443,999.00	9/30/2020	Approved
AE36687-020	Landscape Arch. Support for Metro Expo Line Bike Path Landscape Repairs/Turnover	\$24,739.00	\$0.00	\$0.00	\$24,739.00	09/30/2019	Approved
AE36687-021	Ridership Modeling and Risk Analysis	\$78,372.00	\$0.00	\$0.00	\$78,372.00	09/30/2019	Approved
AE36687-022	Metro Gold Line ROW and Easement Survey for Immediate Remedial Measures in the Vicinity of N Virginia Ave Grade Crossing Azusa	\$24,018.00	\$0.00	\$0.00	\$24,018.00	06/20/2020	Approved
AE36687-023	MOL Improvements Project - Pilot Gates Project			\$1,477,940.00	\$1,477,940.00	6/20/2021	<u>Pending</u>
Totals:		\$6,721,254.66	\$6,013,623.04	\$4,765,122.30	\$17,500,000.00		

DEOD SUMMARY

SUPPLEMENTAL ENGINEERING SERVICES (SES)

A. Small Business Participation

Mott MacDonald Group made a 17% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) overall commitment for this on-call contract. The overall SBE/DVBE participation for the on-call contract is based on the cumulative value of all task orders issued.

To date, twenty-two (22) task orders have been awarded. Based on payments reported, the project is 50.7% complete. The cumulative SBE participation of all task orders awarded is 30.63%. Mott MacDonald Group is exceeding its SBE commitment by 13.63%. The cumulative DVBE participation of all task orders awarded is 2.35%, representing a .65% shortfall.

According to Mott MacDonald and concurred by Metro's Project Manager, the prime began assigning additional scope to the DVBE subconsultant in March of 2020. Mott MacDonald Group anticipates meeting its DVBE commitment, as design work progresses to 100 percent.

Notwithstanding, Metro Project Managers and Contract Administrators will work in conjunction with DEOD to ensure that Mott MacDonald Group remains on schedule to meet or exceed its SBE and DVBE commitments.

Small Business Commitment	17% SBE	Small Business Participation	30.63% SBE
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	SBE Subcontractors	Scope of Work	Current Participation
1.	Anil Verma	Mechanical, Electrical, and Plumbing Engineering and Architecture Services	1.79%
2.	Arellano Associates	Public Outreach, Communications, Stakeholder Engagement	TBD
3.	BA Inc.	Utility Design Engineering	5.92%
4.	Earth Mechanics	Geotechnical and Earthquake Engineering	.0.79%
5.	Engineering Solutions Services	Grant Writing, Structural Engineering	TBD
6.	Gibson Transportation	Transportation Engineering	TBD
7.	Lenax	Cost Estimating Services	2.20%

8.	McLean & Shultz	Architectural, Structural, and Civil Engineering Design Services	4.15%
9.	Morgner Construction Management	Construction Management Support Services, Pre-Construction Surveys	TBD
10.	PacRim Engineering	Structural Design Support	.55%
11.	Rail Surveyors Engineers	Rail Transit Engineering and Surveying	6.09%
12.	Terry Hayes and Associates	Environmental Services	TBD
13.	The Alliance Group	Utility Engineering Design, Coordination, Management, Third Party Coordination	1.47%
14.	The Solis Group	Project Controls: Scheduling and Document Control	0.46%
15.	Wagner Engineering	Land Surveying, Mapping, and Right of Way Engineering	7.01%
16.	Translink (Added)		0.20%
Total SBE Participation			30.63%

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

Small Business Commitment	3% DVBE	Small Business Participation	2.35% DVBE
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	DVBE Subcontractors	Scope of Work	Current Participation
1.	MA Engineering	Civil Engineering Services	1.96%
2.	Leland Saylor (Added)		0.39%
Total DVBE Participation			2.35%

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

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA). Trades that may be covered

include: surveying, potholing, field, soils and materials testing, building construction inspection, construction management and other support trades.

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2020-0320, File Type: Informational Report

Agenda Number: 27.

CONSTRUCTION COMMITTEE MAY 21, 2020

SUBJECT: CRENSHAW/LAX CLOSE OUT PROJECT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

CONSIDER adopting the Life-of-Project (LOP) budget of \$30,000,000 for a new Crenshaw/LAX Close Out Project.

ISSUE

The Crenshaw/LAX project is 95% complete. As the project reaches completion, Metro requires a close out project to provide funding for work anticipated to commence after substantial completion of the Crenshaw Project has been achieved. The funding is separate from the Crenshaw/LAX Construction Project which allows Metro flexibility to close out the Construction Project and related administrative elements in a timely manner. The scope of the new Project will include additional work required that due to timing constraints, is not recommended to be issued to the prime, Crenshaw/LAX Project design-builder. A new "catch-all contract" will be issued for bid to handle the remaining miscellaneous items that are required to be constructed separate from the design-build contract and may potentially be used for other projects as well.

BACKGROUND

The Crenshaw/LAX Transit Project is a north/south light rail line that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition Boulevards to a connection with the Metro Green Line south of the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the C Line (Green), the E Line (Expo) and countywide bus network.

The alignment is comprised of a double-tracked rail line consisting of sections of at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, eight stations, park and ride facilities at two locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Division 16 - Southwestern Yard).

DISCUSSION

The funding of the new Project will maximize the ability for Metro to mitigate the delay of the Crenshaw/LAX Construction Project substantial completion date by completing some non-revenue service required items before and after substantial completion.

The scope of the new Project will include additional work required that due to timing constraints, is not recommended to be issued to the Crenshaw/LAX Project design-builder. Therefore, a new “catch-all contract” will be issued for bid and notice to proceed issued to handle the remaining miscellaneous items that are required to be constructed but as a schedule mitigation, can be completed after substantial completion. This contract could potentially also be used for other projects subject to Board approval.

Funding is also included for legal services required to defend against any claims submitted by the design-builder.

The close out of the professional services contracts will be included as part of this Project. Current Metro and consultant staff will be allocated to perform under this Project and no new staff are being requested.

The funding in Recommendation A is requested to provide support to achieve Substantial Completion in December 2020 and to allow revenue service to commence in 2021.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro’s construction projects.

FINANCIAL IMPACT

Activities for this project will commence in fiscal year 2021. Funds will be requested through the annual budget development process.

Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs in future fiscal years.

Impact to Budget

Eligible local funds (i.e., non-State, non-federal) available at the time of expenditure will be utilized to fund this project. These may include operating eligible funding sources. Eligible federal funds will be utilized and supplant operating eligible local funds.

Multiyear Impact

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment A. In accordance with the Measure R and Measure M Unified Cost Management Policy, staff has evaluated the required steps to address the

cost of the project that are identified in the policy, and due to the need to provide timely funding, recommend the use of countywide local funds that are not restricted to the project corridor or affected subregions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports Strategic Plan Goal #1 - Provide high-quality mobility options that enable people to spend less time traveling.

ALTERNATIVES CONSIDERED

The Board may choose to not move forward with adopting the LOP Budget. This is not recommended as Metro will not have flexibility to complete required scope of work within the best timely and cost-effective opportunities.

NEXT STEPS

Upon approval by the Board, the LOP Budget will be adopted per the Recommendation.

ATTACHMENTS

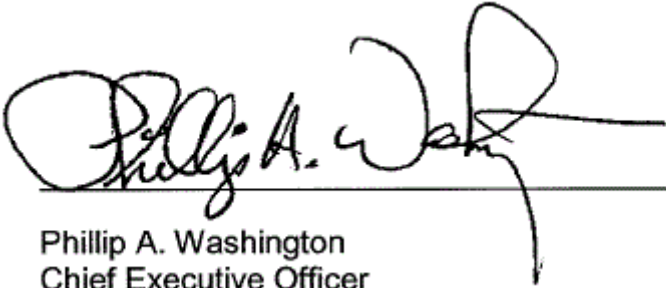
- Attachment A - Funding/Expenditure Plan
- Attachment B - Projected Breakdown of Cost Allocation

Prepared by:

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Reviewed by:

Richard Clarke, Chief Program Management Officer, (213) 922-7557
James de la Loza, Chief Planning Officer, (213) 922-2920



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

C/LAX Close Out Activities Project
Funding / Expenditure Plan*
(Dollars in Millions)

Capital Project N21CCO	FY20**	FY21	FY22	FY23	TOTAL	% Of Total
Uses of Funds						
Construction	-	1.0	11.0	3.0	15.0	50.0%
Prof Services	-	2.2	4.6	3.1	9.9	33.0%
Project Contingency	-	-	4.4	0.7	5.1	17.0%
Subtotal	-	3.2	20.0	6.8	30.0	100.0%
Total Project Costs:	-	3.2	20.0	6.8	30.0	100%
Sources of Funds						
Local/Federal Sources	-	3.2	20.0	6.8	30.0	100%
TOTAL:	-	3.2	20.0	6.8	30.0	100%

*Sources of funds are subject to change. Assumes Contractor Substantial Completion December 2020 and Metro Revenue Service June 2021.
**FY20 is projected.

ATTACHMENT B

C/LAX Close Out Activities Project
Projected Breakdown of Cost Allocation for \$30 million

Amount	Descriptions
\$15,000,000	"Catch-All" Contract (includes estimated \$5m Park Mesa work)
\$7,200,000	Legal Services
\$2,700,000	Professional Services: Metro project support staff Contract Compliance Community Outreach Miscellaneous support
\$5,100,000	Unallocated Contingency
\$30,000,000	Total Increase



Board Report

File #: 2020-0264, **File Type:** Contract

Agenda Number: 30.

**EXECUTIVE MANAGEMENT COMMITTEE
MAY 21, 2020**

SUBJECT: MEDICAL CLINIC SERVICES

ACTION: APPROVE CONTRACT MODIFICATION FOR MEDICAL SERVICES

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to increase Contract Modification Authority (CMA) specific to the contracts listed below to continue providing medical examinations and drug and alcohol collections for employees and job candidates, increasing the total cumulative not-to-exceed contract amounts by \$850,000 from \$5,321,075 to \$6,171,075:

Contract No.	Contractor
PS62402786A	Concentra Medical Center - Commerce (formerly U.S. Healthworks Commerce)
PS62402786B	Concentra Medical Center - Los Angeles (formerly U.S. Healthworks - Los Angeles)
PS62402786C	Concentra Medical Center - Van Nuys (formerly U.S. Healthworks - Van Nuys)
PS62402786E	ProHealth-Glendale Occupational Medical Group (formerly Glendale Memorial Occupational Medical Group)
PS62402786F	CareOnSite

ISSUE

Effective January 1, 2019 the Federal Transit Administration (FTA) increased its annual random drug testing rates from 25% to 50%, thereby increasing the cost to the contracts. Metro conducts physical examinations and drug and alcohol specimen collections for employees and job candidates in safety sensitive positions. These physical examinations and specimen collections are mandated by various regulatory agencies. Recently, safety has become increasingly scrutinized under the DOT and DMV which increased the frequency of special examinations to be conducted to assess fitness, such as potential safety risk and medication evaluations. The term of the contract is from January 19, 2012 through February 28, 2021 and staff is currently working with Vendor/Contract Management to issue an RFP and award a new contract in January 2021 for these services.

BACKGROUND

Effective January 1, 2019 the FTA increased its annual random drug testing rates from 25% to 50%, thereby increasing the cost to the contracts. In addition, safety has become increasingly scrutinized under the DOT and DMV which increased the frequency of special examinations to be conducted to assess fitness, such as potential safety risk and medication evaluations.

On January 19, 2012, Metro awarded nine-year, fixed unit rate contracts (inclusive of three two-year options) to medical clinics to provide various medical examinations and drug and alcohol specimen collections, for employees and job candidates. These contracts were awarded to multiple clinics covering Metro's five service areas: Downtown, Downtown/San Gabriel Valley, West Los Angeles, South Bay/Long Beach, and San Fernando Valley.

The physical examinations and specimen collections are mandated by various funding and regulatory agencies including the DOT, FTA, DMV, and California Division of Occupational Safety and Health (Cal/OSHA).

Under Metro's Fitness for Duty Policy, Metro conducts medical examinations to ensure individuals can perform the duties of their positions in a safe and competent manner and meet the applicable commercial driver license holder requirements. As a larger emphasis is placed on public safety, we have observed an increase in Commercial Driver's License Holder examinations and Medication Evaluations. Commercial driver's license holders are required by law to have periodic physical examinations to recertify their medical cards. The maximum certification period is two years, but drivers with medical conditions such as hypertension, diabetes or sleep apnea, to name a few, are required to recertify on a more frequent basis. This recertification can be anywhere from one month to one year, which increases the number of examinations performed.

In addition, safety-sensitive employees are required to report medications on the Medication Evaluation Form. To better align our processes with medical confidentiality, staff will work directly with our contracted physician who will review and make a safety determination. The Policy also requires Periodic drug testing in conjunction with the Commercial Driver's License Holder examinations. Due to the increase in examinations, there is also an increase in the corresponding drug screen.

DISCUSSION

Currently, Metro utilizes five medical clinics to perform physical exams and drug and alcohol testing. Talent Acquisition staff coordinates pre-employment examinations and corresponding drug and alcohol testing to a selected clinic. Metro Divisions assign random and incident-based drug and alcohol testing to the clinic designated for their division or nearest to the site of the incident. Employees select a clinic of their choice to complete a commercial driver license renewal examination and the corresponding drug test.

Under Metro's Fitness for Duty policy, Metro requires completion of a medical examination prior to an employee returning to work following a medical event that suggests serious potential safety risk. During the last several years, there has been a gradual increase in Return to Work exams. This is partially due more stringent physical requirements in light of public safety and enhanced medical

oversight of physical examinations completed by DOT-certified providers.

Medical examinations are also required when advised by a Health Care Provider (HCP) or public health official that an employee may pose a risk of spreading a highly contagious, serious disease to co-workers or public. In early 2020, amid the global pandemic crisis of COVID-19 which substantially impacted the Los Angeles County area, resulted in numerous employees with the need to complete an exam as part of the return to work process.

Based on the needs of the agency, and new Federal random drug testing requirements, there is a need to continue the services of existing medical providers until new contracts are issued in January 2021.

DETERMINATION OF SAFETY IMPACT

The medical clinics provide the capability for Metro to meet federal requirements for fitness for duty examinations ensuring improved safety for our employees and patrons.

FINANCIAL IMPACT

The funding for medical clinic services is included in cost center 6240, Talent Acquisition Department under project 100001, General Overhead.

In FY20 there is \$730,000 budgeted for these services. Since this is a multi-year contract, the cost center manager and Chief, Human Capital & Development Officer will be responsible for budgeting the cost in future years, including any options exercised.

Impact to Budget

The source of funds for this contract is General Overhead funds, comprised of Federal, State and local funds. These funds are eligible for bus and rail operating costs.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Strategic Plan Goal #5: To provide responsive, accountable, and trustworthy guidance within the Metro Organization; Initiative 5.6: As Metro will foster and maintain a strong safety culture for all. By approving this recommendation Metro will be able to ensure the safety for Metro's patrons and employees.

ALTERNATIVES CONSIDERED

The Board of Directors may choose not to authorize the increase to Contract Modification Authority. This alternative is not recommended because Metro does not have specialized staff that can capably perform these examinations, nor does Metro have the facility and equipment that meet regulatory and certification standards. Non-compliance with mandatory requirements of regulatory agencies such as FTA, DOT, DMV, and Cal OSHA, will result in loss of federal funding.

Additionally, Talent Acquisition is in the process of exploring other drug and alcohol testing options which could impact the amount of drug and alcohol collections conducted at the medical clinics.

NEXT STEPS

Upon approval by the Board, staff will continue to manage the contracted medical clinics to provide critical medical examinations, drug and alcohol testing for Metro employees and job candidates.

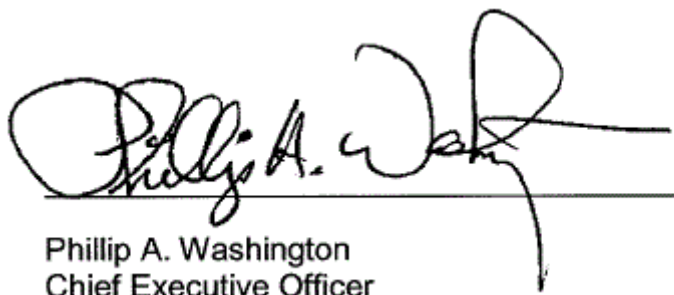
ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - Contract Modification/Change Order Log
- Attachment C - DEOD Summary

Prepared By: Patrice McElroy, Executive Officer, Talent Management
(213) 418-3171

Reviewed By: Joanne Peterson, Chief Human Capital & Development Officer
(213) 418-3088

Debra Avila, Chief Vendor/Contract Management Officer
(213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

MEDICAL CLINIC SERVICES/PS62402786

1.	Contract Number: PS62402786A, PS62402786B, PS62402786C, PS62402786E, PS62402786F		
2.	Contractor: PS62402786A, Concentra Medical Center - Commerce (formerly U.S. Healthworks – Commerce) PS62402786B, Concentra Medical Center- Los Angeles (formerly U.S. Healthworks – Los Angeles) PS62402786C, Concentra Medical Center – Van Nuys (formerly U.S. Healthworks – Van Nuys) PS62402786E, ProHealth Glendale Occupational Medical Group (formerly Glendale Memorial Occupational Medical Group) PS62402786F, CareOnSite		
3.	Mod. Work Description: Increase contract modification authority to continue to provide medical services		
4.	Contract Work Description: To provide medical services including medical examinations; drug and alcohol testing for Metro employees and job candidates.		
5.	The following data is current as of: 4/20/20		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	1/19/12	Contract Award Amount: \$5,321,075
	Notice to Proceed (NTP):	N/A	Total of Modifications Approved: 0
	Original Complete Date:	2/28/21	Pending Increase Contract authority (including this action): \$850,000
	Current Est. Complete Date:	2/28/21	Current Contract Value (with this action): \$6,171,075
7.	Contract Administrator: Marc Margoni		Telephone Number: (213) 922-1304
8.	Project Manager: Don Howey		Telephone Number: (213) 922-8867

A. Procurement Background

This Board Action is to approve an increase in contract modification authority in support of critical medical examinations, and mandated drug and alcohol testing for Metro employees and job candidates.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed, unit rate.

In January 2012, the Board approved nine-year contracts (inclusive of three, two-year option periods), in the total not to exceed amount of \$5,321,075.

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

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon rates that were established as part of the competitive contract award in January 2012 and during the ensuing option periods.

Proposal Amount	Metro ICE	Negotiated Amount
\$850,000	\$850,000	\$850,000

CONTRACT MODIFICATION/CHANGE ORDER LOG
MEDICAL CLINIC SERVICES/ PS62402786

Mod. No.	Description	Date	\$ Amount
1	Increase in Contract Modification Authority	PENDING	\$850,000
	Modification Total:		\$850,000
	Original Contract:		\$5,321,075
	Total:		\$6,171,075

DEOD SUMMARY

MEDICAL CLINIC SERVICES/PS62402786

A. Small Business Participation

These contracts were awarded in April 2012, when the Disadvantaged Business Enterprise (DBE) Program was a race-neutral program, where meeting the DBE goal was not a condition of award. None of the medical clinics that were awarded contracts made a DBE commitment. However, Metro continues to encourage the Contractors to seek DBE participation, when opportunities arise.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2020-0282, **File Type:** Contract

Agenda Number: 31.

**EXECUTIVE MANAGEMENT COMMITTEE
MAY 21, 2020**

SUBJECT: FILMING LIAISON ON THE METRO SYSTEM

ACTION: APPROVE CONTRACT AWARD

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award Contract No. PS66940000 for filming liaison services to The Hollywood Locations Company, Inc. for 5 years, generating an estimated \$1,500,000 revenue for Metro, subject to resolution of protest(s), if any.

ISSUE

A competitive procurement for Metro Filming Liaison has been performed to secure a new contract to replace the current contract that expires April 30, 2020. Metro has contracted filming liaison services to a specialized agency since 2013. Staff is recommending award of contract to The Hollywood Locations Company, Inc., which has extensive expertise within the entertainment business and extensive knowledge of Metro's system and properties.

This contract uses a cost neutral financial model where Hollywood Locations earns a commission on each confirmed filming. Based on historical revenues, staff anticipates commercial filming to generate at least \$300,000 a year, for an estimated \$1,500,000 over 5 years.

This contract authorizes the liaison coordination access for Metro bus and train vehicles, stations, divisions, parking lots, empty land, and all other facilities not designated as historic. Union Station is excluded from this contract and managed separately due to its historic landmark designation.

BACKGROUND

Metro strives to support the local filming industry with a film-friendly environment, offering many resources to media productions. Metro property has provided settings for numerous and notable films, television shows, music videos, and commercials. Since 2013, Metro has used a contractor to provide filming liaison services on Metro properties, rail system, bus system, and vehicles.

Securing an industry expert has resulted in increased opportunities and activities for the industry, and increased revenue for the agency. Recent filming highlights include:

-
- **Featured Films** - Ad Astra; Bright; Captain Marvel; Fast and Furious 7; Roman J. Israel, Esq.
 - **Television/Streaming Series** - All Rise, Bosch, Goliath, Lucifer, Marvel's Runaways, NCIS: Los Angeles, S.W.A.T., This is Us, Westworld
 - **Music Videos** - Taylor Swift, The Weekend, One Republic, Joseph Gordon Levitt

Historical revenue and expense figures from the Metro Research Library & Archives collections indicate Metro has permitted commercial filming on the system since 1992, earning \$52,000 from bus, train, and facility leasing. More recent revenues from the previous fiscal years indicate a steady growth in business activity:

- FY15 \$253,075
- FY16 \$284,010
- FY17 \$324,172
- FY18 \$559,695
- FY19 \$381,484
- FY20 \$224,888 (*not yet complete*)

DISCUSSION

Metro has experienced an increase in filming requests following the reestablishment of the California Film & Television Tax Credit Program 2.0 in July 2015. The tax credit has afforded more television shows to be set in the Los Angeles region; in turn, repeatedly using Metro locations and vehicles for filming. Metro staff also coordinates regularly to maintain the database of available Metro-owned properties, which staff uses to allow greater offerings for the filming program and revenue opportunities, especially for production-related parking rentals.

Contract Terms

- 5-year all-inclusive service contract - services including trafficking inquiries and leads from industry scouts and providing requirements for filming on Metro property, managing and finalizing appropriate licensee contracts, and providing production management and oversight while filming.
- 30% fixed commission of total gross rental revenue - commission does not include Metro labor support fees, which are billed directly to each licensee and passed directly to Metro.
- Full financial and revenue reporting - monthly, quarterly, annual, and unique reports as requested by Metro for the purpose of program management, oversight, and analysis.
- Full compliance with Metro's standard terms and conditions, Safety and Operations policies and procedures - contractor staff will be rail safety certified and ensure filming licensees adhere to safety policies and procedures.

The Hollywood Locations, Inc.

Hollywood Locations is an industry leader in location management within the entertainment industry. They have represented LA Union Station for 20 years; they currently, and have represented, LA Metro for 7 years. They have provided location management in the Southern California area since

1989 and offer a turnkey all-inclusive service - coordinating all production related activities from start to finish.

Since Fiscal Year 2013, Hollywood Locations has generated \$2.6M in revenue as filming liaison for LA Metro. Their impressive rolodex and pre-approved license agreements with all major studios and television networks such as Disney, Warner Bros., NBC Universal, Fox Paramount, Sony, ABC, CBS, and Netflix will ensure access to content creators and their desire to film on the Metro system.

As the incumbent, their experience with Metro and intricate knowledge of agency Operations, Real Estate, Security, and Facilities is advantageous - requiring no new training or transition. They are also fully knowledgeable of our safety policies and are rail safety certified.

FINANCIAL IMPACT

The contract uses a cost neutral financial model for Metro where Hollywood Locations earns a commission for each confirmed filming event/contract. As needed, staff labor support including Security, Operations, and Safety are billed to each filming licensee.

Impact to Budget

As the filming business is strictly market-driven and based on industry demand - it would not be appropriate to use a minimum annual guarantee (MAG) revenue model for this contract. But based on historical revenues, staff anticipates commercial filming to generate at least \$300,000 a year.

All projected revenues of future filming business are noted in fiscal year planning, and all actual revenues are recorded and validated quarterly as part of department's revenue reporting.

ALTERNATIVES CONSIDERED

The Board may choose not to award the revenue contract for Filming Liaison, but this is not recommended. The current contract expires April 30, 2020 and Metro will face a loss of \$300,000 per year without a new service contract. Metro does not possess the knowledge and expertise to directly support the needs of the filming industry, working with a specialist is the most economical and strategic method of supporting the local filming industry.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Commercial Filming on Metro property supports the Strategic Plan by fulfilling:

Goal 5.2 Exercising good public policy judgement and sound fiscal stewardship by monetizing Metro's capital assets to generate revenues for the agency;

Goal 5.4 Applying prudent commercial business practices to create a more effective agency by tapping industry experts to shepherd Metro through a specialized industry and provide expertise Metro does not possess;

Goal 5.5 Expand opportunities for businesses and external organizations to work with us by outsourcing industry experts and specialists.

NEXT STEPS

Upon Board approval, staff will execute contract No. PS66940000 with The Hollywood Locations Company for filming liaison services.

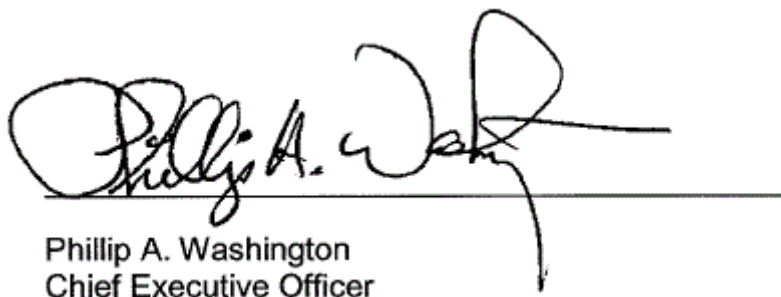
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Ana Vallianatos, Communications Manager, (213) 922-2248
Lan-Chi Lam, Director of Communications, (213) 922-2349
Glen Becerra, Executive Officer of Marketing, (213) 418-3264

Reviewed by: Yvette Rapose, Chief Communications Officer, (213) 418-3154
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

FILMING LIAISON / PS66940000

1.	Contract Number: PS66940000	
2.	Recommended Vendor: The Hollywood Locations Company, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: December 20, 2019	
	B. Advertised/Publicized: January 3, 2020	
	C. Pre-Proposal Conference: January 8, 2020	
	D. Proposals Due: January 22, 2020	
	E. Pre-Qualification Completed: February 27, 2020	
	F. Conflict of Interest Form Submitted to Ethics: February 10, 2020	
	G. Protest Period End Date: April 20, 2020	
5.	Solicitations Picked up/Downloaded: 16	Proposals Received: 1
6.	Contract Administrator: Antwaun Boykin	Telephone Number: 213-922-1056
7.	Project Manager: Lan-Chi Lam	Telephone Number: 213-922-2349

A. Procurement Background

This Board Action is to approve Contract No. PS66940000 issued in support of filming liaison services. Board approval of contract awards are subject to resolution of any properly submitted protest(s).

The Request for Proposals (RFP) was issued in accordance with Metro's Acquisition Policy and the contract type is revenue generating.

One amendment was issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on January 10, 2020, provided documents from the pre-proposal conference and extended the proposal due date to January 22, 2020.

One proposal was received on the due date of January 22, 2020 from The Hollywood Locations Company. Several other firms were listed as plan holders of this RFP who were contacted for a market survey. The firms' responses indicated that inability to meet the minimum requirements and inadequate staffing to put together a proposal were the reasons for not submitting proposals in response to this solicitation.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Communications, Marketing, and Property and Asset Management Departments was convened and conducted a comprehensive technical evaluation of the proposal received.

The RFP required proposers to first pass the following minimum qualifications before being considered for further evaluation in this competitive procurement:

- a. Proposer must have at least ten years' experience in location management / representation.
- b. Proposer must have experience with similar contracts with a minimum contract amount of \$10,000.

The proposal that was received passed the minimum qualifications; it was then evaluated based on the following evaluation criteria and weights:

- | | |
|----------------------------|------------|
| • Experience of Firm | 20 percent |
| • Prime's Skill | 30 percent |
| • Capability Questionnaire | 25 percent |
| • Fee | 25 percent |

Several factors were considered when developing these weights, giving the greatest importance to the prime's skills.

The PET reviewed The Hollywood Locations Company's proposal and references were contacted, reviewed, and confirmed.

Qualifications Summary of Firms within the Competitive Range:

The Hollywood Locations Company

The Hollywood Locations Company was founded in 1989 and has served as Metro's filming liaison contractor for over seven years. The Hollywood Locations Company provides filming liaison services for Union Station, Immanuel Presbyterian Church and the Japanese American National Museum.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	The Hollywood Locations Company				
3	Experience of the Firm	95.80	20.00%	19.16	
4	Prime's Skill	90.00	30.00%	27.00	
5	Capability Questionnaire	96.64	25.00%	24.16	
6	Fee Proposal	100.00	25.00%	25.00	
7	Total		100.00%	95.32	1

C. Cost/Price Analysis

The proposed revenue has been determined to be fair and reasonable based upon fee analysis, historical data, technical analysis, and comparison with industry revenue rate for similar services.

D. Background on Recommended Contractor

The recommended firm, The Hollywood Locations Company, located in Los Angeles, has been in business for over 30 years in the field of filming liaison services. The Hollywood Locations Company is Metro's incumbent filming liaison services contractor and has performed satisfactorily.

DEOD SUMMARY

FILMING LIASON / PS66940000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE) or a Disabled Veteran Business Enterprise (DVBE) goal for this revenue-generating procurement, which will not utilize any federal, state and/or local funds.

Based on industry practices, it is expected that the Prime Contractor will provide all the services, supplies, and/or equipment required on this contract with minimal, if any, subcontracting. Pursuant to MTA's small business program, if the Prime Contractor utilizes the services of subcontractors, the Prime Contractor is encouraged to afford maximum opportunities to small businesses in all subcontracting and supply services areas.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

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

**Board Report**

File #: 2020-0306, **File Type:** Contract**Agenda Number:** 32.

**EXECUTIVE MANAGEMENT COMMITTEE
MAY 21, 2020****SUBJECT: METRO SYSTEM ADVERTISING (LICENSE TO SELL AND DISPLAY ADVERTISING ON BUS AND RAIL)****ACTION: APPROVE CONTRACT MODIFICATION****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to:

- A. EXECUTE Modification No. 3 to Contract No. PS41099B - License to Sell and Display Advertising on Metro Bus System, with OUTFRONT Media Group, LLC, to temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract, with monthly payments of 55% of actual sales revenues, from May 15, 2020 to December 31, 2020, and to re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020; and
- B. EXECUTE Modification No. 1 to Contract No. PS41099R - License to Sell and Display Advertising on Metro Rail System, with Intersection Parent, to temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract, with monthly payments of 55% of actual sales revenues from May 15, 2020 to December 31, 2020, and to re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020.

ISSUE

Metro's bus and rail revenue advertising contractors have requested temporary relief from the revenue Minimum Annual Guarantee (MAG) requirements of the Contracts.

This report details how the current COVID-19 pandemic and *Stay at Home* orders are impacting the advertising business in the short-term and long-term. Due to the significant impacts of COVID-19, both contractors are experiencing canceled sales, lack of sales, and drop in customer impressions - negatively affecting their ability to generate the level of revenue that is necessary in order to meet the minimum annual guarantee (MAG) payments to Metro.

Staff is recommending the temporary suspension of the minimum annual guarantee payment (MAG) obligation from each contractor, and instead, allowing each firm to pay Metro a monthly revenue of 55% share of actual revenues from May 1, 2020 to December 31, 2020. Additionally, staff is requesting approval to re-schedule the May 2020 payment due date from May 15, 2020 to May 30,

2020 to allow both contractors additional time to remit payments to Metro.

BACKGROUND

The Metro Board approved the agency's current revenue advertising contracts with OUTFRONT and Intersection, respectively, in January 2018 with revenue operations beginning in March 2018 and ending in February 2028.

OUTFRONT was awarded Contract PS41099B to sell and manage commercial advertising on Metro's 2,000+ operational bus fleet with guaranteed revenues of \$262,250,000 for the duration of the contract. Intersection was awarded Contract PS41099R to sell and manage commercial advertising on Metro's rail system, including stations and trains, with guaranteed revenues of \$42,902,200 for the duration of the contract. Additionally, Intersection will deploy digital equipment, worth approximately \$20M, at no cost to Metro, for the purpose of migrating to digital advertising and information.

DISCUSSION

The Impact of COVID-19

The current COVID-19 pandemic and *Stay at Home* orders are having unprecedented and unexpected circumstances impacting OUTFRONT and Intersection's ability to generate revenue for the remainder of 2020. Due to the significant impacts of COVID-19, both contractors are experiencing canceled sales, lack of sales, and drop in customer impressions - significantly hindering their ability to meet the contractually required minimum annual guarantee (MAG) payments to Metro.

- ***Cancellation of Sales***

Both contractors have received multiple requests for cancellations or requests for postponement of contracted sales to later in the year. Forward bookings and pending transactions have all but stopped for the second quarter of calendar year 2020 (Apr-May-Jun 2020) and the third quarter of calendar year 2020 (Jul-Aug-Sept 2020). Numerous campaigns slated for late March through June from the entertainment business have all been cancelled.

- ***Loss of Customer Impressions***

The out of home industry is having to combat lower traffic counts and less people on the street viewing advertisements. Metro has reported a decrease in bus ridership of 65%, and a rail ridership decrease of 75%, along with reduced service. This has resulted in the dramatic loss of transit rider and bystander viewing impressions. With the uncertainty of how long the pandemic will continue with *Stay At Home* orders, it is difficult to predict when viewing impressions will recover.

- ***Capital Expenditures Delayed***

Metro's Rail Advertising contractor, Intersection Parent, will delay major capital expenditures for 6 months due to delays in the sourcing of critical components and digital displays. The delays are expected to continue until the worst of the pandemic has passed. As a result, equipment installation for the E Line (Expo Line) will begin in Winter 2020, rather than in

Spring 2020, as previously planned.

MAG Planned Payments versus 55% Revenue Share

Due to the significant impacts of COVID-19 affecting the advertising business, staff is recommending the temporary removal of the minimum annual guarantee (MAG) payments to Metro, and instead receiving 55% revenue share of actual revenues from May 1, 2020 to December 31, 2020 from both Contractors.

This change provides relief to both contractors, while Metro continues to receive revenue payments. Under the present circumstances, it's impossible to estimate the true revenue loss, due to the nature of the pandemic, but the revenue share incentivizes the contractor to continue selling ad space as aggressively as the market will sustain.

Prior to the COVID-19 pandemic, the contracts called for a combined monthly minimum annual guarantee (MAG) payments of \$2,207,754 (\$1,958,333 for bus and \$249,421 for rail) from May to December. Shifting to the 55% revenue share model, the monthly estimated revenues from both contractors for May 2020 to December 2020 are as follows:

- May \$673,638 (bus - \$495,438, rail - \$178,200)
- June \$872,714 (bus - \$756,664, rail - \$116,050)
- July \$450,568 (bus - \$243,218, rail - \$207,350)
- Aug. \$2,020,150 (bus - \$1,760,000, rail - \$260,150)
- Sept. \$1,961,850 (bus - \$1,760,000, rail - \$201,850)
- Oct. \$2,002,000 (bus - \$1,760,000, rail - \$242,000)
- Nov. \$1,994,850 (bus - \$1,760,000, rail - \$234,850)
- Dec. \$1,998,700 (bus - \$1,760,000, rail - \$238,700)

May, June, and July advertising commitments have seen drastic loss of sales on the bus program. It is estimated to recover with a steady revenue projection of \$1,760,000 each month from August 2020 to December 2020. This estimate must be taken with caution, however, as drastic loss of sales and revenues are expected until *Stay at Home* orders have been lifted.

FINANCIAL IMPACT

Temporarily replacing the MAG with the 55% revenue share of actual revenues will result in a drastic change in planned revenues. Under the current circumstances, it's impossible to estimate the true revenue loss, due to the nature of the pandemic, but the revenue share incentivizes the contractor to continue selling ad space as aggressively as the market will sustain.

Impact to Budget

The FY20 Q4 loss of revenue is an estimated \$2,869,156 (-43%).
The FY21 Q1 and Q2 loss of revenue is an estimated \$2,818,406 (-21%).

Advertising revenues are eligible for bus and rail operating and capital expenditures.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the contract modifications, but this is not recommended. By providing short-term relief to both OUTFRONT and Intersection, Metro is preserving long-term revenue generating opportunities and investment of equipment and infrastructure.

The current COVID-19 pandemic is having unprecedented, unexpected, and devastating consequences impacting businesses' ability to operate and create revenue.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The revenue advertising program supports the Strategic Plan by fulfilling these goals:

- Goal 2.2 Improving legibility, ease of use, and trip information on the transit system by creating new amenities that provide quality and up-to-date system information; and using popular technology to enhance customer experience.
- Goal 5.2 Exercising good public policy judgement and sound fiscal stewardship by monetizing Metro's capital assets to generate revenues and exploring private investment in Metro infrastructure improvements.

NEXT STEPS

Upon Board approval, staff will execute both contract modifications, and continue to manage the advertising business in accordance with the contract and applicable agency policies.

Staff will monitor national and local advertising business trends, along with our contractors, and provide the Board with an update in January 2021 on Metro's advertising program - including continuation of the digital rollout and economic performance of the modified contract. By providing short-term relief, we are protecting our long-term revenue source and capital expenditure investment.

Staff will provide a recommendation on whether it is necessary to extend the removal of the minimum annual guarantee (MAG) payments to Metro, based on COVID-19 pandemic recovery.

ATTACHMENTS

Attachment A - Revenue Advertising Update Presentation

Attachment B - Revenue Change Summary


Attachment C - Procurement Summary

Attachment D - Change Order/Modification Log

Attachment E - DEOD Summary

Prepared by: Lan-Chi Lam, Director of Communications, (213) 922-2349
Glen Becerra, Executive Officer of Marketing, (213) 418-3264

Reviewed by: Yvette Rapose, Chief Communications Officer, (213) 418-3154
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051
Nalini Ahuja, Chief Finance Officer, (213) 92-3088



Phillip A. Washington
Chief Executive Officer

**Executive
Management
Committee**

May 2020



Revenue Advertising

Contract Summary

Metro Board approved the current revenue advertising contracts with OUTFRONT and Intersection in JAN 2018 with revenue operations beginning MAR 2018 - FEB 2028.

Buses - OUTFRONT

- Sell and manage advertising on/in 2,000+ bus fleet
- Revenues of \$262,250,000 for the duration of the contract

Rail - Intersection

- Sell and manage advertising on/in rail stations and trains
- Revenues of \$42,902,200 for the duration of the contract
- +\$20M capital expenditure investment for new equipment providing digital advertising and information

\$305M long-term revenue source for Metro

Revenues Paid

Since revenue operations began in March 2018

- \$57.7M have been paid to Metro by OUTFRONT and Intersection combined
- Intersection invested \$4.2M in A Line (2019)
- Both contractors meeting their contractual financial obligations and operating per policies

Summary of Contract Modifications

To preserve a long-term revenue source and investment of equipment and infrastructure, staff is recommending temporary contract changes for both contractors –

1. Temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract
2. Submit monthly payments 55% of actual sales revenues, from May 15, 2020 to December 31, 2020
3. And re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020

Impact of COVID-19

COVID-19 pandemic and *Stay Home* orders beginning March 15th are having unexpected circumstances impacting both contractors' ability to generate revenue for the remainder of 2020.

Cancellation of Sales

- Both contractors are flooded with cancellation requests from their clients.
- Forward bookings have all but stopped for calendar year Q2 (Apr-May-Jun) and Q3 (Jul-Aug-Sept).
- The local entertainment business has evaporated; all sales for 2020 have been cancelled.

Impact of COVID-19 (cont.)

Loss of Customer Impressions

- Bystander viewing impressions – impressions from traffic and pedestrians (people on the streets).
- Rider viewing impressions – impressions from transit riders (Metro riders).

Capital Expenditures Delayed

- Intersection will delay major capital expenditures for 6 months – digitizing E Line pushed to Winter 2020 (originally planned for Summer 2020).
- They have experienced delays sourcing critical components and digital displays and expect the delayed to continue until the worst of the pandemic has passed.

Impact of COVID-19 (cont.)

Nationally – Transit agencies are experiencing similar issues with revenue re-forecasting and shortfalls.

- Regional Transportation Commission Southern Nevada (RTC SNV)
- Sound Transit
- Chicago Transit Authority (CTA)
- Dallas DART

Locally – Businesses who are not providing *essential service* have cancelled orders.

- Entertainment industry (new releases, theaters, television shows) accounts for 50% of BUS sales.
- Local business and institutions (schools, museums, destinations, hospitals) account for 39% of RAIL sales.

Revised Revenue Estimates

Revised revenue projections for May 2020 to December 2020 - with *estimated* 55% revenue share payments compared to *planned* minimum annual guarantee (MAG) payments.

MAG Revenues (planned revenues and payments)								
	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
BUS - MAG	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333
RAIL - MAG	249,421	249,421	249,421	249,421	249,421	249,421	249,421	249,421
MAG (planned)	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754

55% Revenue Share (estimated revenues and payments)								
	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
BUS - 55%	495,438	756,664	243,218	1,760,000	1,760,000	1,760,000	1,760,000	1,760,000
RAIL - 55%	178,200	116,050	207,350	260,150	201,850	242,000	234,850	238,700
55% Revenue (estimated)	\$673,638	\$872,714	\$450,568	\$2,020,150	\$1,961,850	\$2,002,000	\$1,994,850	\$1,998,700

Financial Impact

Estimated loss of revenues

- \$2,869,156 (-43%) = FY20 Q4
- \$2,818,406 (-21%) = FY21 Q1 and Q2
- *Actual monthly sales will vary*
- Advertising revenues are eligible for bus and rail operating and capital expenditures.

Summary of Contract Modifications

To preserve a long-term revenue source and investment of equipment and infrastructure, staff is recommending temporary contract changes for both contractors –

1. Temporarily replace the minimum annual guarantee (MAG) payments to Metro, as required by the Contract
2. Submit monthly payments 55% of actual sales revenues, from May 15, 2020 to December 31, 2020
3. And re-schedule the May 2020 payment from May 15, 2020 to May 30, 2020

Attachment B - Revenue Change Summary

Revised revenue projections for May 2020 to December 2020 - with *estimated* 55% revenue share payments compared to *planned* minimum annual guarantee (MAG) payments.

MAG Revenues (*planned* revenues and payments)

	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
BUS - MAG	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333	1,958,333
RAIL - MAG	249,421	249,421	249,421	249,421	249,421	249,421	249,421	249,421
MAG (planned)	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754	\$2,207,754

55% Revenue Share (*estimated* revenues and payments)

	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
BUS - 55%	495,438	756,664	243,218	1,760,000	1,760,000	1,760,000	1,760,000	1,760,000
RAIL - 55%	178,200	116,050	207,350	260,150	201,850	242,000	234,850	238,700
55% Revenue (estimated)	\$673,638	\$872,714	\$450,568	\$2,020,150	\$1,961,850	\$2,002,000	\$1,994,850	\$1,998,700

PROCUREMENT SUMMARY

METRO SYSTEM ADVERTISING – LICENSE TO SELL AND DISPLAY ADVERTISING ON METRO BUS AND RAIL SYSTEMS/PS41099B and PS41099R

1.	Contract Numbers: A) PS41099B B) PS41099R		
2.	Contractors: A) Outfront Media Group, LLC B) Intersection Parent, Inc.		
3.	Contract Work Description: Advertising Revenue		
4.	Modification Description: Replace monthly Minimum Annual Guarantee (MAG) Payments with monthly payments of 55% of sales revenues for the period May 2020 through December 2020 while Contractors recover from the effects of the COVID-19 pandemic.		
5.	The following data is current as of: April 28, 2020		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	Jan 25, 2018	Original Agreed Upon Revenue (Minimum Annual Guarantee) PS41099B: \$262,250,000 PS41099R: \$42,902,200
	Original Completion Date:	Feb 28, 2028	
	Current Contract Estimated Completion Date:	Feb 28, 2028	
7.	Contract Administrator: Ernesto N. De Guzman		Telephone Number (213) – 922 - 7267
8.	Project Manager: Lan-Chi Lam		Telephone Number (213) – 922 - 2349

Background:

On January 25, 2018, the Board approved the award of Contract Nos. PS41099B and PS41099R to Outfront Media Group, LLC and Intersection Parent, Inc., respectively, for license to sell and display advertising on Metro's bus and rail assets. The contracts' terms were for ten (10) years, from March 1, 2018 through February 28, 2028, and included minimum annual guarantee (MAG) payments that would yield to Metro revenues of \$262,250,000 for advertising on bus assets, and \$42,902,200 for advertising on rail assets during the life of the contract. Two modifications were issued for PS41099B previously. Modification No. 1, issued on March 28, 2018, added the Minimum Annual Guarantee payment schedule and provided clarifications to the contents of the Scope of Work. Modification 2, issued on April 25, 2018, provided a revised schedule of payments for the Minimum Annual Guarantee. No modifications have been previously issued for PS41099R.

Due to significant loss of advertising sales revenues due to COVID-19, the advertising industry has experienced significant losses of revenue. Both bus and rail revenue advertising contractors have requested a temporary relief from the Minimum Annual Guarantee requirements of the Contract, paying instead a share of 55% of monthly sales to Metro from May 2020 through December 2020, while they recover from the economic effects of the COVID-19 pandemic.

ATTACHMENT D

CHANGE ORDER/MODIFICATION LOG

CONTRACT NO. PS41099B

LICENSE TO SELL AND DISPLAY ADVERTISING ON METRO BUS SYSTEM

Modification No.	Description	Date	Amount
1	Clarify contract language	03/28/2018	\$0
2	Provide a schedule of monthly Minimum Annual Guarantee payments	04/25/2018	\$0
3	Temporarily replace Minimum Annual Guarantee (MAG) monthly payments with payments of 55% of actual net sales from May 2020 through December 2020	PENDING	TBD
	Original Contract Revenue Amount (Minimum Annual Guarantee)	1/25/18	\$262,250,000

CONTRACT NO. PS41099R

LICENSE TO SELL AND DSIPLAY ADVERTISING ON METRO RAIL SYSTEM

Modification No.	Description	Date	Amount
1	Temporarily replace Minimum Annual Guarantee (MAG) monthly payments with payments of 55% of actual net sales from May 2020 through December 2020	PENDING	TBD
	Original Contract Revenue Amount (Minimum Annual Guarantee)	1/25/18	\$42,902,200

DEOD SUMMARY

**METRO SYSTEM ADVERTISING – LICENSE TO SELL AND DISPLAY
ADVERTISING ON METRO BUS AND RAIL SYSTEMS/PS41099B and PS41099R**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) determined that a goal is not applicable for this revenue generating procurement, as it will not utilize any federal, state and/or local funds.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

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

**Board Report**

File #: 2020-0319, **File Type:** Informational Report**Agenda Number:** 38.

**CONSTRUCTION COMMITTEE
MAY 21, 2020****SUBJECT: CRENSHAW/LAX TRANSIT PROJECT****ACTION: APPROVE RECOMMENDATION****RECOMMENDATION**

CONSIDER amending the Life-of-Project (LOP) budget by \$90,000,000 for the Crenshaw/LAX Transit Project (Project) of \$2,058,000,000 to \$2,148,000,000, consistent with the provisions of the Board-adopted Measure R and Measure M Unified Cost Management Policy (Attachment B).

ISSUE

The Substantial Completion date for the Project is currently forecast to be delayed to December 2020 and the revenue service in 2021. As a result, the Project LOP budget needs to be increased, requiring an additional \$90,000,000 million beginning in the second half of 2020 for Metro staff and professional service contracts to continue management and oversight of the Project. No additional funding from this LOP increase is designated for the contractor. This represents the first LOP adjustment since the beginning of construction on the Project in 2013.

BACKGROUND

The Crenshaw/LAX Transit Project is a north/south light rail line that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The alignment extends 8.5 miles, from the Metro E (Expo) line at Crenshaw and Exposition Boulevards to a connection with the Metro Green Line south of the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the C Line (Green), the E Line (Expo) and countywide bus network.

The alignment is comprised of a double-tracked rail line consisting of sections of at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, eight stations, park and ride facilities at two locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Division 16 - Southwestern Yard).

On June 27, 2013, the Board authorized an LOP budget of \$1,923,000,000 for the base Project. In addition, the Board authorized an increase to the LOP budget in the amount of \$135,000,000 from \$1,923,000,000 to \$2,058,000,000, for the award of options for Leimert Park Station and Hindry Station (now called Westchester/Veterans Station). The LOP budget has not been

adjusted since that time.

Metro awarded a 57-month Design/Build contract to Walsh/Shea Corridor Constructors (WSCC) for construction of the Project in August 2013 and issued a Notice to Proceed to WSCC in September 2013. WSCC's Substantial Completion date was September 2018 with a revenue service date of October 2019.

DISCUSSION

In March 2017, Metro executed a Claims and Disputes Settlement Agreement with WSCC to resolve outstanding claims and disputes up to that point in the Project. WSCC's Contract Milestones were confirmed as part of the Agreement. WSCC committed to a Substantial Completion date of May 2019 as part of an approved Completion Schedule, which still enabled the October 2019 revenue service date.

WSCC's progress in 2018 fell behind the Completion Schedule dates agreed upon in the Claims and Disputes Settlement Agreement. Metro was informed by WSCC that, due to delays, it would not be able to complete its work by the projected deadline in the Completion Schedule. Since WSCC was not able to demonstrate that its forecasted delay was an Excusable Delay or a Compensable Delay under the Contract Terms and Conditions, Metro executed a Non-Compensable Time Extension. A Unilateral Change Order (CO-223.1) was executed in September 2018 resetting the Project Substantial Completion to December 11, 2019.

In 2019, the project continued to fall behind the dates reset in the Non-Compensable Time Extension. There have been several areas of work along the alignment that could not be completed due to damaged, incomplete and missing components (rework). This rework plus other performance and resource issues caused the contractor's progress to be less than planned, impacting WSCC's follow-on subcontractors work and creating inefficient performance. Metro has been assessing liquidated damages.

Due to extending the Project's Substantial Completion date, additional funding is now required. The existing LOP budget includes funding obligations for the contractor's work, but the LOP budget needs to be amended to provide additional funding for professional services that are required to support the completion of the Project. The required support includes Metro staff and professional services consultants who provide various services to assist in the management and oversight of the Project. The funding in Recommendation A is requested to provide support to achieve Substantial Completion in December 2020 and to allow revenue service to commence in 2021. A detailed breakdown of the proposed uses for the additional \$90 million LOP is contained in Attachment C.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's construction projects.

FINANCIAL IMPACT

Funds required through fiscal year 2020, in the amount of \$127,950,000, are included in Project 865512 Crenshaw/LAX Transit Project, in Cost Center 8510 (Construction Project Management).

Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs in future fiscal years.

Impact to Budget

The sources of funds for the recommended actions are local funds available and eligible at the time of expenditure, including operating eligible funding sources. Eligible federal funds will also be utilized to fund the increase.

Multiyear Impact

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment A. The project cost, prior to the proposed cost increase, is included and funded in the 2019 Long Range Transportation Plan Financial Forecast. With respect to the \$90,000,000 increase, Attachment B shows the Measure R and Measure M Unified Cost Management Policy (the Policy) analysis and funding strategy required for cost increases to Measure R Projects.

To comply with the Policy of the Metro Board of Directors, Metro staff has evaluated potential offsetting cost reductions, including value engineering, shorter segment, and reductions to other Metro projects in the corridor and subregion, and has determined these are not feasible, and that additional local funding resources (i.e., funding specific to the affected corridor or subregion), which are to be considered prior to Metro's countywide funding, are potentially available. The Policy analysis identifies a Measure M multi-year subregional program, Measure R highway program, and federal formula CMAQ funding as available funding sources in the Long Range Transportation Plan Financial Forecast that can address the \$90,000,000 cost increase. Metro staff has discussed the potential funding sources with representatives of each subregion and recommends the use of \$46.7 million from the subregional equity program (with the subregion's share based on a proportion to be agreed upon by the subregions), \$33.1 million of CMAQ, and the remaining \$10.2 million of other regional funds to cover the LAX portion of the project as it is a regional facility within LA County. The use of the subregional equity program will be subject to approval by the governing body of each subregion. Metro has allocated funding for the SEP starting in FY 2043 in the Long Range Transportation Plan Financial Forecast and has not developed yet an administrative process to program SEP funds to the subregions. Staff plans to discuss this further in the June/July Board cycle.

Attachment B provides a detailed discussion of the Policy. In summary, the Policy was developed in recognition that some projects would need additional funding and the Policy provides a consistent and equitable process to assure that any financial impacts are limited to the subregion where the project is located and not have a region-wide impact.

The Policy defines a cascading list of actions that can be taken. Because the Project is so far along,

actions such as value engineering or changes in scope are no longer feasible. Additional funding is the only option.

The table at the end of Attachment B identifies the potential funding sources that are available and recommended funding. The selection and application of specific resources has involved the affected stakeholders but requires further discussion.

It is important to note that the Project spans two subregions - South Bay and Central City - and a method to determine each subregion's share of the funding for the cost increase will need to be identified. Metro staff will conduct outreach to the subregions for their consensus and approval.

The most recent project to be evaluated under the Policy was the Foothill Extension to Pomona in 2019. Although the two projects are not directly comparable (Foothill was not yet under construction, so had more opportunity for scope changes), there are similarities that could be instructive.

In that case, the financial deficit was addressed by the subregional equity program of the San Gabriel Valley. Funds were accelerated to be taken from the subregional equity pool in the year that funding became available (2043). A board motion directed this approach and was subject to approval by the San Gabriel Valley Council of Governments.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports Strategic Plan Goal #1 - Provide high-quality mobility options that enable people to spend less time traveling.

ALTERNATIVES CONSIDERED

The Board may choose to not move forward with amending the LOP Budget. This is not recommended as Metro will be unable to provide funding for Metro staff or obligate any extension to existing professional service contracts, or other required services beyond June 2020.

NEXT STEPS

Upon approval by the Board, the LOP Budget will be amended accordingly per the Recommendation.

Metro staff will continue discussions with each subregion and identify the proportional shares that each subregion will contribute to the LOP increase, and work with the governing bodies of the subregions to obtain their approval for the use and amount of subregional equity program funds. Metro staff will make every effort to conclude these steps within three months and report back to the Board with an update at that time.

ATTACHMENTS

Attachment A - Funding/Expenditure Plan

Attachment B - Measure R and Measure M Unified Cost Management Policy Analysis

Attachment C - Projected Breakdown of Cost Allocation for \$90 million

Attachment D - SBCCOG letter to Metro CEO

Prepared by:

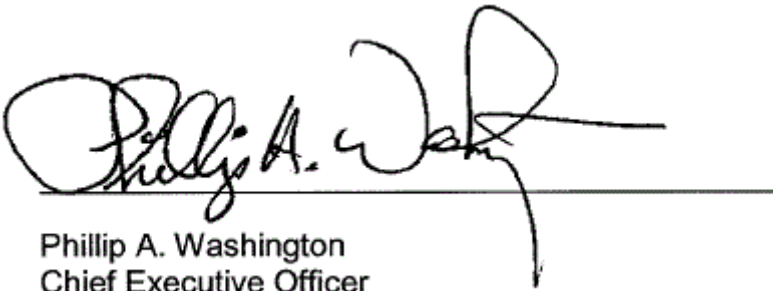
Sameh Ghaly, Sr. Executive Officer/Project Management (213) 264-0693

William Brown, Deputy Executive Officer, Program Control (323) 903-4109

Reviewed by:

Richard Clarke, Chief Program Management Officer, (213) 922-7557

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



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

Crenshaw/LAX Transit Project
Funding / Expenditure Plan*
(Dollars in Millions)

Capital Project 865512	Prior	FY20**	FY21	FY22	FY23	FY24	TOTAL
Uses of Funds							
Construction	1,267.1	15.1	73.8	10.0	-	-	1,366.0
Right-of-Way	132.4	1.4	-	-	-	-	133.8
Vehicles	78.8	4.7	-	-	-	-	83.6
Prof Services	364.3	46.3	78.0	30.0	20.0	-	538.6
Project Contingency	-	-	-	-	-	-	-
Subtotal	1,842.6	67.5	151.8	40.0	20.0	-	2,122.0
Environmental Planning	26.0						26.0
Total Project Costs:							
	1,868.6	67.5	151.8	40.0	20.0	-	2,148.0
Sources of Funds							
FEDERAL - CMAQ	54.0	50.0	-	-	-	-	104.0
FEDERAL - SECTION 5309 BUS CAPITAL	8.6	-	-	-	-	-	8.6
FEDERAL - REGIONAL STP	91.2	-	8.7	-	-	-	99.9
FEDERAL - ALTERNATIVE ANALYSIS	1.2	-	-	-	-	-	1.2
FEDERAL - TIGER II	13.9	-	-	-	-	-	13.9
STATE REGIONAL IMPROVEMENT PROG	36.6	-	-	-	-	-	36.6
STATE PPM	0.2	-	-	-	-	-	0.2
STATE PROP 1B PTMISEA	128.9	-	-	-	-	-	128.9
STATE PROP 1 B LOCAL PARTNERSHIP PROGRAM	49.5	-	-	-	-	-	49.5
MEASURE R - TIFIA LOAN	545.9	-	-	-	-	-	545.9
MEASURE R 35%	467.5	4.5	92.3	(20.0)	-	(15.0)	529.3
CITY CONTRIBUTION	43.6	3.1	20.0	20.0	-	15.0	101.7
GENERAL FUNDS	54.3	-	-	-	-	-	54.3
PROPOSITION C 25% HIGHWAY	368.4	9.9	(20.0)	20.8			379.1
PROPOSITION C 40% DISCRETIONARY	-	-	-	-	-	-	-
PROPOSITION A 35% RAIL CAPITAL	4.9	-	-	-	-	-	4.9
Local/Federal Sources		-	50.8	19.2	20.0	-	90.0
TOTAL:							
	1,868.7	67.5	151.8	40.0	20.0	-	2,148.0

*Sources of funds are subject to change. Assumes Contractor Substantial Completion December 2020 and Metro

**FY20 is projected.

Crenshaw/LAX Transit Project

Measure R and Measure M Unified Cost Management Policy Analysis

Introduction

The Measure R and Measure M Unified Cost Management Policy (the Policy) was adopted by the Metro Board of Directors in June 2018. The precursor Measure R cost management policy was adopted in March 2011. The intent of the Policy is to inform the Metro Board of Directors regarding cost increases to Measure R- and Measure M-funded projects and the strategies available to close a funding gap. The Crenshaw/LAX Transit Project (the Project) is subject to this policy analysis.

The life-of-project (LOP) budget for the Project was last approved by the Board in June 2013 at \$2,058,000,000. The Project is subject to the Policy analysis now due to a proposed \$90,000,000 increase to the LOP budget. Funding for the cost increase is needed through FY 2023. This analysis recommends trade-offs required by the Policy to identify the funds necessary to meet the cost increase.

The Project has previously recognized cost increases and the Metro Board implemented the Policy in June 2013 to address a \$160,100,000 cost increase to the base project (excluding a \$135,000,000 increase to the LOP for station improvements that were not considered cost increases). The Board approved funding of the cost increase using \$149,910,000 of the countywide share of Proposition C 25% and \$10,090,000 that was taken from the Wilshire Bus Rapid Transit project.

Measure R and Measure M Unified Cost Management Policy Summary

The adopted Policy stipulates the following

If a project cost increase occurs, the Metro Board of Directors must approve a plan of action to address the issue prior to taking any action necessary to permit the project to move to the next milestone. Increases will be measured against subsequent actions on cost estimates taken by the Metro Board of Directors, including the determination of the budget. Shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order as appropriate:

- 1) Scope reductions;
- 2) New local agency funding resources;
- 3) Value Engineering;
- 4) Other cost reductions within the same transit or highway corridor;
- 5) Other cost reductions within the same sub-region; and finally,
- 6) Countywide transit or highway cost reductions or other funds will be sought using pre-established priorities.

Scope Reductions

The Project cost increase is attributable to schedule delays and the need for additional Metro project management support services. Any attempt to identify and negotiate agreeable reductions to the scope may result in further delays and potential additional costs. Because of this, we recommend moving to the next step.

New Local Agency Funding Resources

Local funding resources (i.e., specific to the affected corridor or subregion) are considered in the next step as opposed to countywide or regional sources so as not to impact the funding of other Metro Board-approved projects and programs or subregions in the County.

The Project is eligible for both Measure M and Measure R funding and is currently allocated \$1,207,000,000 of funding that is identified in the Measure R sales tax ordinance Expenditure Plan, less \$131,800,000 that the Board reallocated to the Purple Line Extension project (Board item #2015-1630) to address a Regional Connector cost increase.

The Project is located in the South Bay and Central City Area subregions (as defined in the Policy, as amended), with station locations in the cities of Los Angeles and Inglewood. Local funding resources from both the subregions and cities could be considered for the cost increase.

Subregional Programs and Local Agency Contributions

Measure M includes funding for a transit-eligible multi-year subregional program (MSP) for the South Bay and Central City Area subregions. The subregion (represented by its Council of Governments) could allocate a portion of the funding for the Project. Measure R includes funding for a "highway program" in the South Bay. Any use of this funding source would require a transfer to the transit fund and an amendment of the Measure R ordinance so that the funds are eligible for a transit use. The Measure R transfer amendment is in progress and expected to be considered by the Metro Board in June 2020.

Local Agency Contributions

The cities with Project stations have agreed to contribute funding to the Project as part of the 3% local agency funding assumption included in the Measure R ordinance. Metro is front-funding the Los Angeles share of \$89.7 million with the city making payments to Metro through FY 2023. Inglewood has agreed to pay \$12 million, with \$6 million in-kind for future first-last-mile improvements, and \$6 million in payments made over 40 years (with no payments or interest accrued for ten years). The cities are generally not responsible for cost increases to the projects and this restriction is included in the local agency contribution agreements between Metro and the cities.

Measure M, as well as Measure R and Propositions A and C, provide “local return” funding to Los Angeles and Inglewood. The cities will receive an estimated \$3.3 billion of local return (Los Angeles \$3.2 billion, Inglewood \$90 million) over the ten year period FY 2021 to FY 2030 that is eligible for transit use and could contribute a portion to the Project (not adjusted for any negative impact to countywide sales tax due to the current global pandemic). However, prior Board actions relating to the Twenty-Eight by '28 Initiative and funding for the cost increase to Foothill Extension to Pomona did not support use of local return, and it is presumed these funds would not be available for the cost increase to the Project.

State and Federal Funding (Discretionary)

The State has previously granted the project \$129.1 million through Prop 1B grants and the USDOT has provided funding through a \$13.9 million TIGER grant and \$545.9 million TIFIA loan. Additional State or federal discretionary funding (where Metro would compete for the funding) is not probable, given the Project has experienced multiple cost increases and the design/build contract is already awarded.

Value Engineering

The Project cost increase is attributable to schedule delays and the need for additional Metro project management support services. Any attempt to identify and negotiate agreeable value engineering may result in further delays and potential additional costs. As a result, we recommend moving to the next step.

Other Cost Reductions within the Same Transit or Highway Corridor, or within the Same Sub-region

The cities and subregions have existing funding programs that have funding amounts yet to be spent. The potential use of the MSP, SEP, and Measure R highway program are discussed above in section "New Local Agency Funding Resources."

The cities also receive funding through the Call-For-Projects, the competitive grant program that is funded and managed by Metro for the benefit of LA County cities, transit operators, and State highway projects that was last held in 2015. At times the funding for certain projects in the Call-For-Projects is "de-obligated" if not spent within a reasonable timeframe and this can be a funding source for other uses. Currently there is not a meaningful amount of de-obligated funds available, and all other projects are moving through their respective development process.

The Project is within the same corridor as the Airport Metro Connector, the planned Project station intended to be a gateway to LAX. This project is currently in final design and pending a construction bid in mid-2020 to determine the LOP budget. Funding is not yet available from the project.

Countywide Cost Reductions and/or Other Funds

If new local agency resources are not allocated to the Project cost increase, regional or countywide funding could be considered. These funds are programmed for other uses in Metro's financial forecast, during the timeframe when funds are needed for the Project cost increase. A reallocation of the funds to the cost increase would divert the funding from other Board-approved uses and or require additional debt financing. Eligible sources of countywide funding include Proposition C 25% (Transit-Related Streets and Highways), Proposition C 40% (Discretionary), and Proposition A 35% (Rail Development).

Through FY 2023, the Proposition C 25% funds are currently planned, from highest to lowest, for debt service on Metro bonds, I-5 South Carpool and Mixed Flow Lanes I-605 to OCL, Freeway Service Patrol, Blue Line Track and System Refurbishment, and the Crenshaw/LAX Locally Funded Activities Project. The Proposition C 40% is planned for Metro bus operations, ADA-paratransit operations, debt service, Metro bus fleet replacement, and the municipal and non-Metro operators. The Proposition A 35% is planned for debt service on Metro bonds, Metro rail operations, Division 20, Heavy Rail Vehicles, and Light Rail Vehicles. The Project is currently allocated (prior to the proposed LOP increase) \$379.1 million in regional Proposition C 25% and \$4.9 million in regional Proposition A 35% funding.

State and Federal Funding (Formula)

Metro receives quasi-formula funding from the State through the Regional Improvement Program (RIP) and Local Partnership Program (LPP). This is considered regional funding as it can be applied countywide to both transit and highway spending. There is currently no capacity in the RIP or LPP through FY 2025. The RIP has been allocated to projects submitted in Metro's 2020 RTIP and the next cycle of the LPP is planned to be used on the \$801 million Division 20 project.

Due to the delay in revenue operation, approximately \$16.1 million from the State Low Carbon Transit Operations Program (LCTOP) and \$31.1 million from the federal Congestion Mitigation & Air Quality Program (CMAQ), which were allocated to operating costs of the Project in FY 2021, will no longer be needed for this purpose if the revenue service date is delayed. The LCTOP funds have already been earmarked for bus charging infrastructure, as these funds needed to be allocated to satisfy State requirements. The CMAQ funds in FY 2021 could be used for the cost increase and this would not take away funding from another Metro purpose (procedurally, in order to satisfy grant eligibility requirements, the CMAQ may reimburse previously incurred expenditures). The use of CMAQ is subject to the eligibility requirements related to the existing TIGER grant.

Recommendation

The following table summarizes the potential funding options for the Project cost increase. Based on discussions with each of the impacted subregions, Metro staff recommends the use of \$46.7 million from the subregional equity program, to be allocated among the subregions using a proportion to be agreed upon by the subregions, \$33.1 million of CMAQ funds that were initially earmarked for FY 2021 operating costs of the Project, and \$10.2 million from regional funds. Metro staff will work with the subregions to determine the proportional shares for each subregion, and seek formal approval from the governing body of each subregion for use of the subregional equity program.

Crenshaw/LAX
Potential Funding Sources/Cost Reductions
(\$ in millions)

Options	Potential Funding	Year Available
Multi-Year Subregional Programs	not eligible	
Subregional Equity Program-South Bay*	\$ 90.0	2021
Subregional Equity Program-Central City Area	160.0	2021
Measure R Highway Program**	500.0	2021
Local Return	-	2021
Value Capture Financings	-	2025
Scope Reductions/Value Engineering	-	
CMAQ	33.1	
Other Regional Funds***	10.2	
Total	\$ 793.3	

* Represents “discounted” value of amount that is currently programmed beginning in FY 2043.

** Requires amendment to Measure R ordinance.

***Source of funds to be determined.

ATTACHMENT C

Crenshaw/LAX Transit Project
Projected Breakdown of Cost Allocation for \$90 million

Amount	Descriptions
\$4,000,000	ARCADIS INC - based on lessons learned project management has procured a claims support consultant to assist with preparing documentation and analysis in support of Metro's defense against claims submitted by the contractor.
\$5,000,000	City of Los Angeles/City of Inglewood-Leading to the completion of the project there still remains 3rd party coordination which will include administration support and street location support. Based on annual work plans.
\$60,000,000	Professional Services - Includes specific consultants and in-house Metro staff: <ul style="list-style-type: none"> o KKCS/TRIUNITY - Includes project management support services including estimating and project control support. o STANTEC - construction management support services procured to support Metro staff in oversight of specific areas of project construction disciplines such as field inspectors, resident engineers and other construction support. o Mott MacDonald - engineering management support services providing design review support and assessment of engineering issues during construction. There is complicated systems installation and testing during the last 5% of the project and this consultant provides oversight. o Metro staff at Gateway and at multiple field offices who perform oversight in various disciplines. o Legal Services - includes County Counsel and procured legal services to assist project management. o Contract Compliance - consultants that monitor the construction contractor compliance with project labor agreement and DBE requirements. o Community Outreach - consultants that provide assistance to support Metro initiatives along the Crenshaw Project alignment. o Miscellaneous support - there are several consultants companies who provide remaining environmental monitoring, systems testing guidance and miscellaneous support to project management.
\$3,900,000	Non-federal Real Estate Loss of Goodwill - goodwill in property acquisitions is not an allowable federal expense, but required under state law. Therefore, the project must use separate local funding for this component.
\$2,200,000	Non-federal funding must be applied for Metro costs to re-configure the Rail Operations Control (ROC) Center to accommodate the new Crenshaw communications system.
\$700,000	Non-federal Community Outreach - community events and programs that are not eligible for federal funding (Taste of Soul, Eat-Shop-Play). These programs have been very successful and should continue until the project is complete
\$14,200,000	Unallocated Contingency - not assigned to any particular line item but is required for anticipated but unknown cost increases.
\$90,000,000	Total Increase



SOUTH BAY CITIES
COUNCIL OF GOVERNMENTS

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Torrance, CA 90501
(310) 371-7222
sbccog@southbaycities.org
www.southbaycities.org

April 28, 2020

Phillip A. Washington
Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012

Dear Mr. Washington:

The South Bay Cities Council of Governments (SBCCOG) Board of Directors reviewed your April 23, 2020 letter seeking use of Measure M South Bay Sub-Regional Equity Funds (local SEP funds) to partially pay for the \$90 million cost overrun on the Crenshaw/LAX line. As you are aware the SBCCOG has previously committed its entire \$130 million in our local SEP funds as a component of a Metro full-funding plan for delivery of the Centinela Grade Separation project on the Crenshaw/LAX line.

SBCCOG supports use of an appropriate proportionate share of the South Bay SEP funds for the Crenshaw/LAX line cost overrun with the following conditions:

1. Based on 37% of the Crenshaw Line being in the South Bay, the SBCCOG's proportionate share of the cost overrun will not exceed \$33.3 million ($\$90 \text{ million} \times .37$);
2. Since the balance of the Crenshaw/LAX line is in the City of Los Angeles, the South Bay SEP funding is contingent on Metro securing the \$56.7 million balance of the \$90 million overrun from the Central Area Subregion and Westside Subregion SEP funds or from City of Los Angeles local funding sources;
3. This contribution share constitutes a one-time contribution on the condition that no further requests for additional South Bay sub-regional funding for the Crenshaw/LAX line will be sought by Metro; and,
4. Consistent with your commitment to Metro Chair and Inglewood Mayor James Butts, the SEP contribution to the Crenshaw/LAX cost overrun is contingent on Metro staff recommending a full-funding strategy and implementation timeline for the regional Centinela Grade Separation project by June 2020 that includes a maximum of \$96.7 million in South Bay SEP funds (the remaining balance of the South Bay SEP funding).

LOCAL GOVERNMENTS IN ACTION

Carson El Segundo Gardena Hawthorne Hermosa Beach Inglewood Lawndale Lomita
Manhattan Beach Palos Verdes Estates Rancho Palos Verdes Redondo Beach Rolling Hills
Rolling Hills Estates Torrance Los Angeles District #15 Los Angeles County

The SBCCOG Board of Directors believes these contingencies are reasonable and appropriate to ensure that construction of the Crenshaw/LAX line is not delayed further and that the Centinela Grade Separation project will be delivered in a timely fashion.

With gratitude,

A handwritten signature in black ink, appearing to read 'Christian Horvath', with a long horizontal flourish extending to the right.

Christian Horvath, SBCCOG Chair
Redondo Beach City Councilman

**Board Report**

File #: 2020-0255, **File Type:** Informational Report**Agenda Number:** 5.

**PLANNING AND PROGRAMMING COMMITTEE
MAY 20, 2020****SUBJECT: SAN GABRIEL VALLEY TRANSIT FEASIBILITY STUDY****ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATION**

RECEIVE AND FILE the response to Board Motion Item 8.1 (Attachment A, Legistar File 2020-0172) on the February 2020 Board report, Eastside Transit Corridor Phase 2 (Attachment B, Legistar File 2020-0027) directing staff to:

- 1) Prepare a feasibility study to evaluate high-quality transit service options to serve the San Gabriel Valley, and
- 2) Include recommendations for a Funding Plan for the San Gabriel Valley and Gateway Cities subregions that encompasses Measure R and Measure M funding for Eastside Transit Corridor Phase 2 to demonstrate subregional equity.

ISSUE

In February 2020 the Board approved the staff recommendations to withdraw the SR 60 and Combined Alternatives from the Eastside Transit Corridor Phase 2 project (Attachment B) and directed staff to prepare an independent feasibility study that evaluates options to serve the mobility needs of the San Gabriel Valley. The Board approved a Motion (Attachment A) directing staff to return in May 2020 with a plan for the feasibility study and the development of a high-quality transit service option in the San Gabriel Valley subregion including a Funding Plan that encompasses Measure R and Measure M funding. The Board identified \$635.5 million of Measure R funding for improvements to be identified in the San Gabriel Valley transit feasibility study and to be consistent with the funding years in the Measure R Expenditure Plan.

As a result, Metro staff has initiated the development of the technical and outreach scope of services for the San Gabriel Valley transit feasibility study. The feasibility study is anticipated to commence in Fiscal Year (FY) 2021, with an approximate 18-month schedule, and would identify short- and long-term solutions that serve the mobility needs in the San Gabriel Valley. In response to the Board motion, Metro staff has developed a Funding Plan within the parameters identified in the Board motion.

BACKGROUND

Numerous transit alternatives within the San Gabriel Valley and Gateway Cities have been evaluated as part of the Eastside Transit Corridor Phase 2 project. In 2007, the alternatives analysis identified various alternatives including light rail transit (LRT) and bus rapid transit (BRT). Two LRT alternatives, SR 60 and Washington Boulevard, were studied in the 2014 Eastside Transit Corridor Phase 2 Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR). Due in part to concerns regarding the SR 60 Alternative raised by the community, stakeholders, and Cooperating Agencies, the Metro Board deferred the selection of a locally preferred alternative and directed staff to carry out additional technical work to address the issues.

Since that time, Metro conducted additional technical analysis and reinitiated the environmental process. The constraints along the SR 60 freeway became more evident with further technical analysis and in February 2020, the Metro Board approved the withdrawal of the SR 60 and Combined Alternatives from the Eastside Transit Corridor Phase 2 environmental study.

Stakeholders and communities along the SR 60 corridor have shown a vested commitment and support for transit in the southern San Gabriel Valley. Metro recognizes the mobility challenges that exist within the San Gabriel Valley and the need to connect the communities in eastern Los Angeles County to the regional transit network. Metro will continue to work with key stakeholders and the communities in the San Gabriel Valley to evaluate and identify mobility solutions.

Funding

Measure M provides \$3.976 billion to the Eastside Transit Corridor Phase 2, to be expended in two cycles:

- Cycle 1 includes \$1.086 billion of Measure M and \$3 billion estimated project cost for one alignment with a 2029 groundbreaking date and an expected opening date from 2035-37
- Cycle 2 includes \$2.89 billion of Measure M and \$3 billion estimated project cost with a 2053 groundbreaking date and an opening date from 2057-59

Measure R and Measure M did not provide for splitting the corridor into two concurrent projects. Measure R provided for one corridor to be built with funds conceptually attributable to both sub-regions. Measure M provided additional funding to allow two projects to be constructed, but at different points in time. One project was to proceed earlier in the Measure M plan (\$3 billion in FY29-35) and a second to go forward later (\$3 billion in FY53-57), when future sales tax and State funding are projected to be available.

DISCUSSION

The February 2020 Board action directed staff to commence an independent feasibility study focused exclusively on a San Gabriel Valley transit project to replace the previous SR 60 Alternative. Metro staff has initiated the development of the scope of services for technical and outreach services and will procure professional services to assist with this effort. The anticipated duration of the study is approximately 18 months. The feasibility study will identify short- and long-term solutions that serve

the mobility needs in the San Gabriel Valley. The feasibility study will allow Metro to continue to work with the San Gabriel Valley Council of Governments, the SR 60 corridor cities, key stakeholders, and the communities in this area to identify alternative transit solutions including but not limited to BRT, LRT, and monorail. These solutions will be developed in close coordination with stakeholders in the San Gabriel Valley.

The study will build upon the analysis and alternatives developed during early work on the Eastside Transit Corridor Phase 2 planning process and will identify alternatives to serve the SR 60 corridor cities and potentially the communities near the Los Angeles County/San Bernardino County border. Additionally, the feasibility study will identify opportunities to potentially provide new connections to the Foothill section of Metro L (Gold) Line as well as Metrolink and/or Foothill Transit lines. The potential alternatives will be evaluated in order to identify the most promising transit solutions for the subregion. This effort will be supported by a complementary professional services contract for community and stakeholder engagement utilizing the Communications Bench.

In response to the Board Motion Item #8.1, Metro staff are recommending a funding plan to address the parameters included in the Board motion and provide \$635.5 million of funding for the San Gabriel Valley during the "funding years" of the Measure R Expenditure Plan.

Consistency with the Equity Platform

The project is consistent with Metro's Equity Platform and will work to provide a reliable and high-quality transit alternative to the communities of eastern Los Angeles County to help solve the mobility challenges in the San Gabriel Valley and meet the mobility needs of the area's residents and businesses. The feasibility study will incorporate Equity Focused Communities and other demographic data to identify and solve mobility challenges consistent with the Equity Platform. Additionally, the study will incorporate the principle of "listen and learn" and will include comprehensive and meaningful engagement opportunities.

FINANCIAL IMPACT

San Gabriel Valley Transit Feasibility Study- The FY20 budget does not include funding for the proposed San Gabriel Valley transit feasibility study. Staff has identified initial funding sources from Cost Center 4310 (Mobility Corridors Team 1) and is currently working to identify available funds for inclusion in the proposed FY21 budget. Authorization for this study to proceed without delay is subject to the identification and approval of funding in the FY21 budget. Since this is a multi-year program, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years.

San Gabriel Valley Short- and Long-Term Transit Improvements- In response to the Board Motion, Metro staff is recommending a Funding Plan that addresses the following requirements of the motion:

- a) Honor the commitment of \$635.5 million made to the San Gabriel Valley subregion as part of Measure R documentation;
- b) The commitment will be consistent with the funding years in Measure R;

- c) Include recommendations for funding and cash flow that encompasses all Measure R and Measure M funding for the project; and,
- d) Ensure financial capacity to move the project forward as a Pillar Project.

These requirements are generally understood to require that \$635.5 million is made available to the satisfaction of the San Gabriel Valley subregion (i.e., for a transit project that is for the benefit of or is spent within the boundaries of the subregion) during FY22-35, considers funding for both cycles of the project, and does not inhibit the funding of cycle 1.

Given requirement c) above, the commitment could be funded from the cycle 2 Measure M funds, if the Board would support defunding cycle 2. The defunding may reduce the ultimate scope of the cycle 2 project. However, there are several restrictions and important considerations regarding the cycle 2 funds including:

- The Measure M cycle 2 funds (the "Gold Line Eastside Ext. Second Alignment" project funding in the Measure M Expenditure Plan) are not eligible for construction until FY53;
- The cycle 2 funding is programmed in the Metro Long Range Transportation Plan (LRTP) financial forecast during FY50-57;
- The cycle 1 funding plan is based on preliminary cost estimates from the Expenditure Plan and relies on assumed State grant funding that has yet to be pursued or awarded;
- Moving the Measure M cycle 2 funds from FY50-57 to FY22-35 (the Measure R funding years identified in the Expenditure Plan) will take away funding from both the cycle 2 project and other Board-approved Measure M projects and programs scheduled for FY22-35; and,
- Metro has a policy that the acceleration of Measure M funding cannot negatively impact other Measure M projects.

In order to overcome the ordinance restriction on cycle 2 construction spending, the ordinance can be amended. This would reallocate funding from cycle 2 to cycle 1 in a clear and transparent manner. Alternatively, Metro could consider the trading or swapping of funding as a workaround to the construction spending restriction; however, this creates an administrative need to account for the use of funds that increases the risk of noncompliance with the ordinance, and may not be entirely consistent with the ordinance provisions that specify the amount of Measure M funding by project.

The Funding Plan recommendations are as follows:

1. Retain all funding assigned to the cycle 1 project per the 2019 LRTP financial forecast;
2. Pursue an amendment to the Measure M ordinance that creates a new project or program

(e.g., "San Gabriel Valley Eastside Transit Commitment") with \$635.5 million of Measure M transit funding, exclude the funding for this new commitment from the Measure M inflation adjustments allowed by the ordinance, and reduce Measure M funding for the "Gold Line Eastside Ext. Second Alignment" by approximately \$700 to \$750 million (the precise amount to be determined at the time of the amendment);

3. Pursue a Board action that requires the approval of the San Gabriel Valley subregion of the use of Measure M funding for the commitment;
4. Pursue a Board finding that the addition of \$635.5 million for a new San Gabriel Valley Measure M transit commitment, and corresponding reduction of approximately \$700 to \$750 million from the cycle 2 project does not negatively impact other Measure M projects; and,
5. Defer any of the recommendations upon the completion of the San Gabriel Valley transit feasibility study.

The amount of the reduction in cycle 2 Measure M funding is greater than the \$635.5 million commitment in order to mitigate the financial impact of the acceleration of Measure M funds. The acceleration of funding for the commitment comes at a cost - it will likely result in additional debt financing for Measure M projects and programs, with associated interest cost. The relatively larger reduction in cycle 2 funding in FY50-57 provides capacity to fund the expected additional interest cost.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This response to the Board Motion supports the Metro Vision 2028 Strategic Plan. Specifically, the project supports Goals #1 and #3 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.

By continuing efforts that provide high-quality mobility options, enhance communities and lives through mobility and access to transit, and addressing mobility challenges in San Gabriel Valley, Metro is continuing to work towards equitable and accessible transit services, reduce travel times and roadway congestion, and enhance connections to the regional transit network.

ALTERNATIVES CONSIDERED

The Board could decide to delay this action. This is not recommended as this would delay the initiation of the San Gabriel Valley transit feasibility study.

NEXT STEPS

Staff will continue to develop the scope of services for technical and outreach services required to produce the San Gabriel Valley transit feasibility study. Metro staff will report back to the Board with a request for approval proceeding the procurement process and a budget amendment, if required.

ATTACHMENTS

Attachment A - Metro Board Motion Item 8.1 (Legistar File 2020-0172)

Attachment B - Metro Board Report Item 8 (Legistar file 2020-0027)

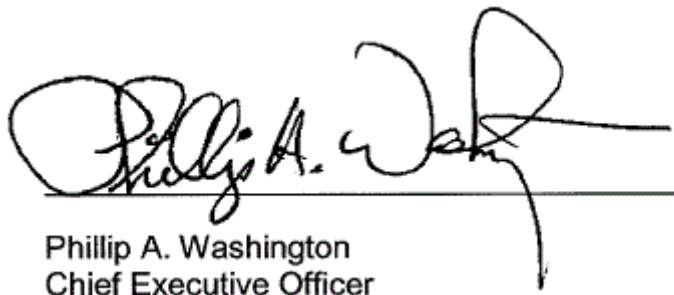
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Chief Executive Officer



Metro

Board Report

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

File #: 2020-0172, **File Type:** Motion / Motion Response

Agenda Number: 8.1

REGULAR BOARD MEETING FEBRUARY 27, 2020

Motion by:

DIRECTORS SOLIS, HAHN, BUTTS, GARCIA, FASANA, AND GARCETTI

Amendment to Item 8: Eastside Transit Corridor Phase 2

Since the passage of Measure R in 2008, the Los Angeles Metropolitan Transportation Authority (Metro) has been hard at work delivering a \$40 billion, voter-approved program of projects aimed at enhancing Los Angeles County's transportation network. In 2016, voters doubled down on their approval of Measure R with their approval of Measure M, which brought forth \$120 billion in additional sales tax revenues for a slew of transit, highway, and active transportation projects.

Both Measures R and M include the Eastside Transit Corridor Phase 2, also known as the Gold Line Eastside Extension Phase 2 project (Project), in their expenditure plans with \$1.271 billion in Measure R sales tax revenues and \$1.086 billion in Measure M sales tax revenues programmed for the Project. In total, the Project has approximately \$3 billion programmed for one alignment available in 2029, and another \$3 billion available for a second alignment in 2053. The Project's environmental document is currently in progress and includes the State Route 60 Alternative, the Washington Boulevard Alternative, and the Combined Alternative as potential alignments for the extension of the existing Gold Line light rail eastward from unincorporated East Los Angeles

Agenda Item 8 provides staff recommendations to withdraw the State Route 60 and Combined Alternatives from further consideration as part of the Project's environmental document. Additionally, staff recommendations include moving forward with Project environmental clearance under the California Environmental Quality Act only and forgoing any additional analysis under the National Environmental Policy Act. In parallel to completion of the environmental document, staff will also launch a feasibility study that will evaluate mobility needs in the San Gabriel Valley for communities along the State Route 60 corridor. The recommendations presented by staff have been informed by a number of in-depth technical studies that identified significant costs and engineering challenges for the delivery of both the State Route 60 and Combined Alternatives.

However, recommendation C under Agenda Item 8 would benefit from stronger specificity. It does not provide a timeframe for when the feasibility study would be presented to the Board, it is vague as to what options should be evaluated, and does not commit funding for this effort.

SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2

RECOMMENDATION

APPROVE Motion by Directors Solis, Hahn, Butts, Garcia, Fasana, and Garcetti that the Board direct the CEO to add the following directive under Agenda Item 8:

e. Honor the commitment of \$635.5 million made to the San Gabriel Valley subregion as part of Measure R documentation. This commitment will be recognized consistent with the funding years in the Measure R Expenditure Plan.

FURTHER that the Board direct the CEO to provide a report back to the Board in May 2020 that includes:

1. Recommendations for funding and cash flow (Funding Plan) for the San Gabriel Valley and Gateway Cities that encompasses all of the Measure R and Measure M funding for the Gold Line Eastside Extension Phase 2 to demonstrate subregional equity for both the San Gabriel Valley and the Gateway Cities. As part of the Funding Plan, include any potential inter-fund borrowing between Measures R and M, loan options, or other financial mechanisms necessary to retain overall equity while ensuring financial capacity to move the Gold Line Eastside Extension Phase 2 forward as an accelerated Pillar Project under Metro's Twenty-Eight by '28 Initiative.
2. Implementation plan to design, environmentally clear and construct a high-quality transit service option that will serve the State Route 60 Corridor cities and potentially the communities near the Los Angeles County/San Bernardino County border. The strategy should include details for outreach, timeframes to initiate and finish the environmental review, and a preliminary analysis of alternatives.
3. Consideration of, as part of the feasibility study for the San Gabriel Valley, high-quality transit service options including Bus Rapid Transit and Alternative Rail Transit Technology (i.e., Monorail Transit, or MRT) and identification of opportunities to connect Metro's transit network with the Foothill Gold Line as well as the Metrolink and Foothill Transit networks in the San Gabriel Valley.

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
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Los Angeles, CA



Board Report

File #: 2020-0027, File Type: Informational Report

Agenda Number: 8.

**PLANNING AND PROGRAMMING COMMITTEE
FEBRUARY 19, 2020**

SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- a. Proceeding with the California Environmental Quality Act (CEQA) only for the project's environmental process;
- b. Withdrawing the SR 60 and Combined Alternatives from further consideration in the environmental study;
- c. Preparing a feasibility study independent from the Eastside Transit Corridor Phase 2 project to evaluate other options that better serve the needs of the San Gabriel Valley; and
- d. Approving the Eastside Transit Corridor Phase 2 Title VI Service Equity Analysis.

ISSUE

Measure M allocates \$6 billion to the Eastside Transit Corridor Phase 2 project (Project) to be programmed in two cycles. Cycle 1 identifies \$3 billion for one alignment with a 2029 groundbreaking date and an opening date of 2035. Cycle 2 identifies \$3 billion with a 2053 groundbreaking date and an opening date of 2057. The Project is currently in the environmental review process pursuant to the CEQA and National Environmental Policy Act (NEPA) with three build alternatives under study to support the adoption of a Locally Preferred Alternative. These three alternatives (SR 60, Washington, and Combined Alternatives as described in this report) were approved for study by the Board in May 2017 (Legistar #2017-0154). This Project is one of the four pillar projects identified by the Board for acceleration efforts to be completed in time for the 2028 Olympic and Paralympic Games in Los Angeles (Motion 32.4, #2019-0108).

The recommendations in this Board Report would facilitate efforts for project acceleration. Discontinuing NEPA analysis would streamline the environmental study by not requiring federal reviews. The current environmental schedule includes NEPA and CEQA clearances of the three project alternatives as well as a no-build Alternative. Final environmental clearance is anticipated in 2023 and construction by 2029, placing the Project at risk of not meeting 2028 acceleration goals. Pillar projects must begin construction no later than the calendar year 2023 to be completed and

enter into revenue service by 2028 (Legistar file 2019-0434).

The SR 60 and Combined Alternative face significant environmental and engineering challenges and are less consistent with adopted Metro policies than the Washington Alternative. These issues and constraints are documented in the attached SR 60 and Combined Alternatives Issues and Constraints Report (Attachment A). Narrowing the project alternatives, in this case, selecting the Washington alternative as the proposed project for continuing environmental review would shorten the project schedule by narrowing and focusing environmental and engineering work currently in progress. The selection of an alternative requires a Title VI service equity analysis which has been completed for this project. Results of the analysis are included in the Eastside Transit Corridor Phase 2 Title VI Service Equity Analysis (Attachment B).

BACKGROUND

The Eastside Transit Corridor Phase 2 has been studied extensively and has evolved since its inception. These studies have included:

- In 2007 an Alternatives Analysis (AA) Study for the Project was initiated, wherein 47 alternatives were evaluated.
- In January 2009, the Metro Board approved the AA Study and identified two build alternatives to be carried forward.
- In 2010 the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was initiated. The Draft EIS/EIR analyzed two build alternatives, SR 60 and Washington Boulevard, in addition to the No-Build and Transportation Systems Management (TSM) Alternatives. The Draft EIS/EIR was released for public review in August, 2014.
- In November 2014, the Board directed staff to carry out additional technical work to address concerns raised by Caltrans, United States Environmental Protection Agency (EPA), and United States Army Corps of Engineers (USACE) about the SR 60 Alternative. The technical work also included identifying a new north-south alignment to connect to the Washington Boulevard Alternative.
- At the May 2017 meeting, the Board received the findings of the Post Draft EIS/EIR Technical Study and approved an updated project definition.

Based on these actions the following project alternatives were carried forward and are included in the current study:

SR 60 Alternative

Generally, follows the southern edge of the SR 60 Freeway primarily in an aerial configuration from Atlantic Station, the current Metro Gold Line terminus at Pomona Boulevard and Atlantic Boulevard, and continues to Peck Road in the city of South El Monte. A 1.5-mile segment shifts to the north side of the freeway, between Greenwood Avenue and Paramount Boulevard to address technical issues regarding the proximity to the Operating Industries, Inc. (OII) Superfund site and avoid disturbance of contaminated materials. Proposed stations along this route that are being considered include: Garfield Avenue station serving Montebello and Monterrey Park, The Shops at Montebello station in Montebello, Santa Anita Avenue station in South El Monte, and Peck Road station in South El Monte.

Washington Alternative

Travels south along Atlantic Boulevard in an underground segment between the current Metro Gold Line terminus station at Pomona Boulevard/Atlantic Boulevard and the Citadel Outlets in Commerce. The route then proceeds east along Washington Boulevard via aerial and at-grade (street level) configurations ending at Lambert Road in the city of Whittier. Proposed stations along this route that are being considered include: redesigned Atlantic Boulevard station, Atlantic/Whittier Boulevard station in East Los Angeles, Commerce/Citadel station in Commerce Greenwood Avenue station in Montebello, Rosemead Boulevard station in Pico Rivera, Norwalk Boulevard station serving unincorporated Los Nietos, Whittier, and Santa Fe Springs, and Lambert Road station in Whittier.

Combined Alternative Explores the potential build out and operation of both the SR 60 and Washington Alternatives as described above. The Combined Alternative would allow service from South El Monte and Whittier to downtown Los Angeles and the regional transit network. The alternative would require infrastructure and operational elements that would not otherwise be required if only one of the alternatives was operated as a “stand-alone” line. Trains would alternate between continuing west past Atlantic Boulevard Station and providing a one-seat ride between South El Monte and Whittier in a “C” configuration via a wye junction (i.e., three-way junction). Specifically, the Combined Alternative would include a wye junction in the East Los Angeles area near the Via Campo neighborhood that would connect the SR 60 and Washington Alternatives, allowing alternating train movements between both lines.

In October 2018, the Board authorized the award of professional services contracts (Legistar file 2018-0303) to restart the environmental studies and clear the Project under CEQA and NEPA and to complete Advanced Conceptual Engineering design. As part of the reinitiated environmental review planning process, additional focused technical analysis was done to address concerns raised by Cooperating Agencies for the SR 60 and Combined Alternatives. The constraints and challenges within or along the freeway corridor have become more evident with further technical analysis, additional engineering design, and coordination with future improvements for the SR 60 Freeway. The Combined Alternative compounds these technical challenges by requiring the addition of an underground wye junction at Pomona/Atlantic where the existing Gold Line ends.

Recent Metro Board adopted policies to address emerging transportation priorities, including equity, Transit-Oriented Communities (TOC), First/Last Mile (FLM) planning, and parking policies which were not in place when the project was first introduced. An analysis of TOC- and FLM-related factors relevant to assessing the SR 60 and Washington Alternatives was completed as part of the current planning process. The Washington Alternative shows greater potential compared to the SR 60 Alternative as it relates to TOC and FLM.

DISCUSSION

CEQA Only Environmental Clearance (Discontinuing NEPA)

The Eastside Transit Corridor Phase 2 is one of the four pillar projects which introduces acceleration goals to the Measure M Program. The Project is primarily funded by Measures M and R and other

state and local sources. Federal funding allocation for this Project is not a significant component of the project's funding plan.

Currently, \$40.4 million out of the \$3 billion Cycle 1 project funding plan are federal. The designated federal funds could be reallocated to other projects with commensurate state and local funding reprogrammed for Eastside Transit Corridor Phase 2. In the future, should additional federal funding for the project become available, staff would have the ability to reinitiate NEPA analysis. Pursuing environmental clearance only through CEQA could streamline the environmental analysis and advance acceleration efforts to support the pillar project goals. Federal reviews would no longer be required and FTA could prioritize reviews of other Metro priority projects.

Summary of Technical Issues and Constraints of the SR 60 Alternative

From the onset, the SR 60 Alternative posed environmental and engineering challenges associated with running parallel to the SR 60 Freeway and adjacent to sensitive land uses and environmental resources. These concerns have been analyzed and reevaluated through several studies beginning with the 2014 Draft EIS/EIR Report, the 2017 Post Draft EIS/EIR Technical Study, and additional focused analyses that were initiated in 2019.

Longstanding environmental and engineering challenges raised by Cooperating Agencies and utility providers are detailed in Attachment A. A summary of critical constraints and challenges that have intensified since the 2014 Draft EIS/EIR and the 2017 Post Draft EIS/EIR Technical Study that impede the Project implementation efforts and inability to meet acceleration schedule are described below.

Future Improvements of the SR 60 Freeway

The SR 60 Alternative runs primarily within the existing Caltrans right-of-way (ROW) and must be closely coordinated with major improvements that are planned for the SR 60 Freeway including Caltrans' planned future widening which would bring existing general-purpose lanes up to Caltrans' current standards and add HOV lanes. These planned improvements pose major constraints for the SR 60 Alternative which have become more apparent as engineering and environmental studies have advanced.

Adverse issues associated with the SR 60 Alternative include:

- In meetings in 2019, Caltrans underscored that the SR 60 Alternative would impact Caltrans' ability to widen the freeway in the future. The widening of the SR 60 Freeway would result in shifting the SR 60 Alternative aerial guideway out of the Caltrans ROW in most cases.
- Based on Caltrans' planned criteria for the freeway, an approximate 93-foot buffer was agreed upon as sufficient space to accommodate future improvements. The 93-foot buffer is conceptual and would require Caltrans approval upon submittal of Advanced Conceptual Engineering drawings.
- This alignment shift, if implemented along the full alignment, would further impact adjacent residential and environmentally sensitive areas beyond what was identified in the 2014 Draft EIS/EIR. The impacts would occur particularly to single-family and

multifamily residences, Whittier Narrows Recreation Area and South El Monte High School.

- The SR 60/ I-605 Interchange Improvements project is currently in the environmental clearance phase. This project, managed by Metro's Highways Program in coordination with Caltrans, has led to modifications to the terminus station at Peck Road to accommodate the freeway widening and new ramp configurations. This design places the guideway approximately within 5 feet of the residential condominiums adjacent to the freeway ramp.

Issues related to the required rail transit guideway as it crosses the freeway have raised additional issues:

- The SR 60 Alternative transitions to the north side of the freeway between Greenwood Avenue and Paramount Boulevard to circumvent the OII Superfund site and avoid disturbance of contaminated materials. Caltrans raised concerns about the 2014 design that proposed the placement of bridge column supports in the median of the SR 60 Freeway.
- To address these comments, a focused technical analysis of alternative bridge options and alignments to cross the freeway was undertaken. It was concluded that a clear-span option (i.e., avoiding a column in the median of the freeway) is feasible to address Caltrans' concerns. However, the curve radius for the alignment across these bridge spans would reduce operating speeds from 55 mph to 25 to 30 mph for the Project. The proposed clear-span bridges do not meet the desired operating speeds for light rail. The Metro Rail Design Criteria (MRDC) establishes maximum operating speed of 65 MPH for exclusive and semi-exclusive alignments and states that mainline alignments should be designed for the established maximum operating speed.

Caltrans-Required Lateral Encroachment Permit

Historically, Caltrans has communicated that a Lateral Encroachment Permit would be required for the areas of the guideway that are proposed to be within Caltrans' ROW (partially or fully). This is an added constraint and risk to the Project because of potential delays to obtain such permit. These types of proposed lateral encroachment permits are not conventional within the Caltrans permitting process, which would require extensive reviews to ensure State compliance.

Constrained Maintenance Storage Facility (MSF)

An MSF and potential initial operating segment would need to be identified for each Alternative to serve rail operational functions and demands. Metro Operations' regional needs are being met through this Project based on the Fleet Management Plan. The plan establishes a need for an MSF site, approximately 20 acres in size, that can accommodate storage capacity for 100 to 120 light rail vehicles (LRV) and required operational elements. Issues associated with identifying a Maintenance & Storage Facility have included:

- Identifying an MSF site along the SR 60 Freeway is limited primarily due to the surrounding land uses, including the SR 60 Freeway, the OII Superfund site, the Whittier Narrows Flood Control Basin, and residential and recreational areas.
- The proposed SR 60 MSF is a small site, approximately 15.5 acres in size, with a storage capacity of approximately 70 LRVs. This is less than what would be required for

the SR 60 Alternative, which would require close to 100 to 120 LRVs, and less than required for the Combined Alternative to serve Metro's overall system needs.

- The non-revenue lead tracks would extend beyond the proposed terminus, Peck Road station, in an aerial configuration approximately half-mile. The lead tracks would cross over the San Gabriel River and the San Gabriel River Trail/Bike Path in an aerial configuration.
- The elevated structure would conflict with Southern California Edison (SCE) overhead transmission lines, which would have insufficient vertical clearance. Also, an easement from SCE would be required, including through the middle of the MSF facility.

Summary of Technical Issues and Constraints of the SR 60 Alternative

The Combined Alternative introduces the inclusion of wye junction. The wye junction's proposed location is in unincorporated East Los Angeles County at the intersection of Atlantic Boulevard/3rd Street/Pomona Boulevard in the Via Campo neighborhood. Additional property acquisitions would be required along Pomona Boulevard from La Verne Avenue to Sadler Avenue.

- The approximately 2/3-mile stretch would require the acquisition of the whole first row of mostly commercial properties along the south side of 3rd Street/Pomona Blvd for the construction of the wye junction as part of the Combined Alternative.
- As a stand-alone element, incorporating the Combined Alternative would add approximately \$1.3-1.7 billion to the project capital cost for the wye junction, which is not commensurate with the forecasted number of riders it would serve.

The Washington Alternative does have its challenges, however not as complex relative to the SR 60 and Combined Alternatives. The focused technical analysis for the Washington Alternative included the evaluation of the underground section, design variations at Rosemead and 605 freeway, and the bridge crossings. These challenges are being resolved within the project's predetermined timeline for environmental clearance.

Inconsistencies with Metro Adopted Policies

In June 2018, Metro's TOC Policy was adopted to promote places (such as corridors and neighborhoods) that, by design, allow people to drive less and access transit more. TOCs promote more walkable, bikeable, and sustainable neighborhoods adjacent to transit. The TOC Policy sets the direction to guide Metro decision-making for projects and to assist local jurisdictions in maximizing the potential of transit investments in their communities.

A TOC and FLM Assessment Report is being prepared which establishes TOC and FLM criteria. TOC criteria relate to an evaluation of adjacent land uses, population and employment densities. FLM criteria analyzed bicycle facilities, block sizes, and active transportation elements. In addition to TOC and FLM analysis, the Assessment Report reviews Environment and Equity criteria to assess physical barriers in the surrounding station area environment and the extent to which TOCs are served. Initial findings from the TOC and FLM assessment work indicates that the SR 60 Alternative lacks potential as it correlates to all three criteria: TOC, FLM, and Environment and Equity. This is due to the spatial nature of proposed station areas along the alignment.

The SR 60 Alternative is challenged and constrained because the guideway runs parallel to the freeway. Stations are adjacent to the freeway which lacks direct connections to residential communities within the half-mile station area. Some stations along the SR 60 Alternative are situated in large commercial shopping malls, parking lots and recreational zones near freeway on/off-ramps. Connections to existing residential neighborhoods are hindered by the quality of the public realm, a discontinuous and suburban street network, large block sizes, numerous freeway on/off ramps, and freeway underpasses.

Given the lack of proximity to residential communities and the lack of direct connections within the half-mile station area, the SR 60 Alternative is less supportive of the adopted equity goals, serving fewer low-income and transit-dependent populations. Land uses surrounding these stations are also less transit-supportive than those along the Washington Alternative. Preliminary results of the TOC and FLM Assessment Report are summarized in Attachment A.

The Washington Alternative exhibited better compatibility with Metro's adopted policies. Proposed stations along the Washington Alternative demonstrated greater TOC compatibility. The stations are planned in areas with a connected street network making it easier to walk, bike, and ride transit. Station areas either have existing transit-supportive land use patterns or have the potential for future planning efforts. This is mainly because the stations along this alignment are located close to existing residential neighborhoods and commercial corridors. In general, the Washington Alternative stations are situated in areas with a higher presence of residential land uses, serving more economically disadvantaged communities who would benefit from improved transit access consistent with Metro's Equity Platform.

Public Scoping Meetings

Through the reinitiated environmental review process, a 45-day scoping period was held from May 31 to July 15, 2019. Public scoping meetings were held in June 2019 in the cities of Whittier, South El Monte, Commerce, Montebello, Pico Rivera, and unincorporated Los Angeles County in the East Los Angeles community.

Approximately 300 comments were received during the scoping period. Approximately two-thirds of the comments referenced the build alternatives. Over one-third of the comments referenced the SR 60 Alternative, which received the lowest amount of support from the public. An organized community group-Justice and Equality for the Eastside Coalition-obtained over 400 signatures from residents of the Via Campo neighborhood opposed to the current proposed construction of an at-grade and aerial portion of the SR 60 Alternative. They were concerned with the negative health and quality of life impacts. In general, there was some support for all three project alternatives. The major themes expressed by stakeholders in their comments included:

- Opposition to at-grade alignment on SR 60 Alternative from South Atlantic Boulevard to Findlay Avenue;
- General support for Washington Alternative from communities, business groups and employers along the alignment; and
- Concerns raised over environmental justice and equal consideration for undergrounding in

lower-income areas of the county.

Alternative Solution with the Withdrawal of the SR 60 and Combined Alternatives

The Eastside Transit Corridor studies to date recognize the mobility challenges that exist along the SR 60 Freeway corridor and within the San Gabriel Valley and the need to connect to Metro's regional transit network. The route has been analyzed and reevaluated through several studies since 2007. Stakeholders and communities along the corridor have shown a vested commitment to the project. If the Board approves the withdrawal of the SR 60 and Combined Alternative from the Project's environmental study, the staff recommendation is that Metro should continue to work with the corridor cities, key stakeholders and the communities to prepare a feasibility study that would identify short and long term solutions to evaluate options to serve the mobility needs in the San Gabriel Valley and along the SR 60 Freeway. The short- and long-term plan will include financial review of the Measure R and M commitments. The anticipated duration of the feasibility study would take approximately 18 months to complete. The development of the scope of work for technical services and outreach would commence immediately upon Board approval. Metro staff will report back in six months on the progress of the feasibility study.

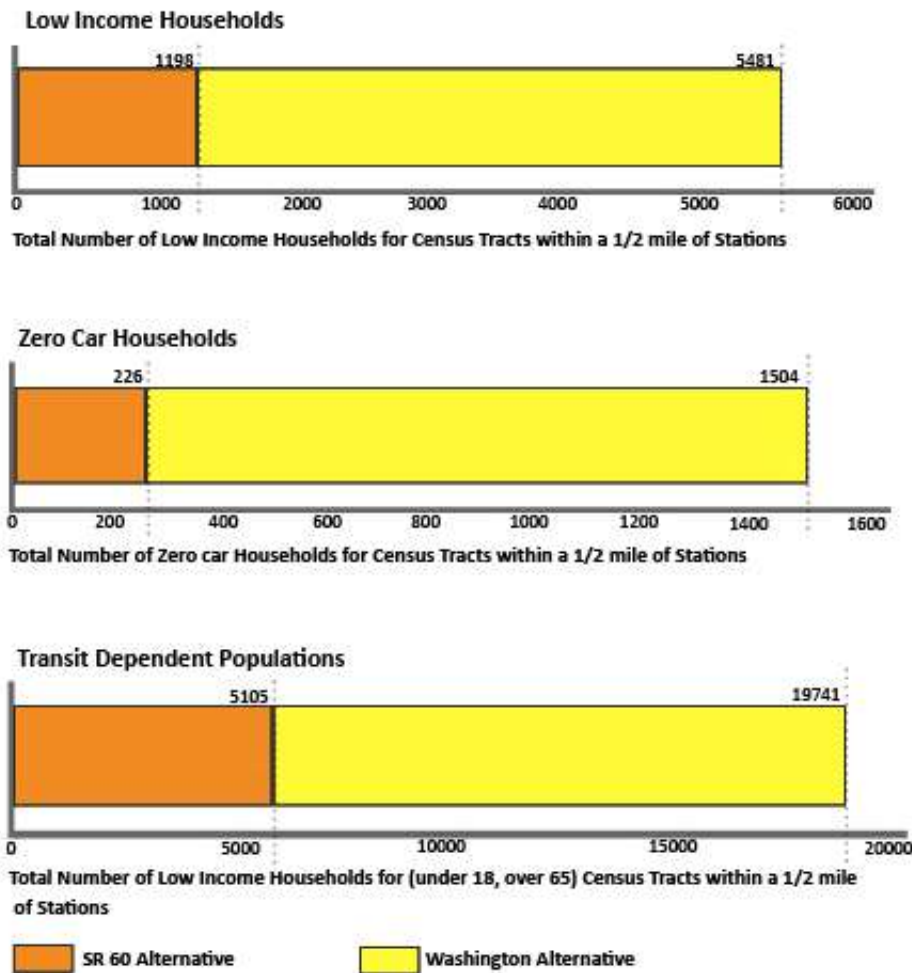
Equity Platform

The Project is aimed at providing a more reliable and high-quality transit alternative to the communities of the eastern Los Angeles County that will help to solve the mobility challenges in the Project area and meet the mobility needs of the area's residents and businesses. In the further development of the Equity Platform, the Draft 2020 LRTP includes frameworks that help address the first two Equity Platform pillars (Define and Measure and Listen and Learn).

The equity-focused community (EFC) definition identifies two demographic factors that have historically been determinants of disinvestment and disenfranchisement: household income and race/ethnicity. Households with low vehicle ownership also present an opportunity to target new mobility investments in neighborhoods with a higher propensity to take advantage of them. Together these three factors represent the locations where strategic transportation investments can have the greatest impact on reducing disparities in access to opportunity. The 2017 baseline year demographic data was used to understand communities' social, demographic, and geographic information.

The communities along the SR 60 Alternative, when compared to the county average, have lower densities, fewer communities with non-English speaking population, and fewer communities living below the federal poverty level. Full EFC mapping analysis and framework are described in Attachment A.

The TOC and FLM analysis also evaluated low-income households, zero-car households, and transit-dependent population data within a half-mile of the station areas for the SR 60 and Washington Alternatives. The SR 60 Alternative stations serve substantially fewer low-income, transit-dependent, and zero-car households. The chart below compares the low-income and transit-dependent population data for the SR 60 and Washington Alternatives.



Title VI Service Equity Analysis Findings

Title VI Service Equity Analysis is required to support the identification of a Locally Preferred Alternative for a potential new transit service as part of the proposed Eastside Transit Corridor Phase 2 Project. The analysis was conducted pursuant to Metro’s Title VI thresholds and FTA’s Circular 4702.1B, which require that the service change be analyzed to determine whether the proposed service will have a disproportionate burden or disparate impact on minority and low-income populations relative to the non-low-income and minority populations.

The analysis utilized income and ethnicity demographic data to assess the characteristics of each alternative’s service area and evaluate if the low-income and minority populations would be affected by the proposed Project. Based on the percentage analysis conducted, it was found that there was no disproportionate burden as it relates to low-income populations along the alternatives. The percentage of minority populations along the new transit service were higher than Metro’s service area as a whole. Since the new transit service would be considered a benefit to the corridor cities, providing an additional transportation option and increased accessibility, the analysis determined that the minority populations along the corridor cities would benefit from the project. In summary, this Title

VI Service Equity Analysis concludes that each alternative would prove beneficial and would not impose a disproportionate burden or disparate impact. The analysis and results are detailed in Attachment B.

DETERMINATION OF SAFETY IMPACT

These actions will not have any impact on safety of our customers and/or employees because this Project is at the study phase and no capital or operational impacts result from this Board action.

FINANCIAL IMPACT

The FY20 budget does not include funding for the proposed feasibility study. Should the Board approve the recommended action, staff would work to identify funding sources from Cost Center 4310 and fund a new project in FY20 in the anticipated amount of \$250,000 for professional services. Since this is a multi-year program, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years.

Impact to Budget

Along with discontinuing NEPA, federal funds will be removed from this project. The new funding sources will be local admin funds, which are not eligible for bus and/or rail operating and capital expenses.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project supports the goals outlined in the Metro Vision 2028 Strategic Plan. More specifically, the Project supports Goal #3 - *Enhance Communities through Mobility and Enhanced Access to Opportunity*, as it will connect communities to the regional Metro rail network, which will expand access to jobs, major activity centers, including educational and medical institutions, and recreational opportunities within the project area and across the Los Angeles region.

ALTERNATIVES CONSIDERED

The Board could decide not to withdraw from the NEPA process. This is not recommended because it extends the Project's environmental schedule with an anticipated final environmental clearance in 2023 placing the Project at risk of not meeting acceleration goals. Allocated federal funds for this Project are marginal and could be reallocated with state and local funding.

The Board could decide not to approve the recommended withdrawal of the SR 60 and Combined Alternatives to be carried forward into the environmental study. These alternatives are not recommended, as this would impact the Project's environmental clearance schedule and would not consider the updated technical findings. The narrowing of the alternatives will ensure the Project remains on schedule and will also support the Project's acceleration goals.

Washington Alternative is a viable option with less constraints in contrast to the SR 60 Alternative. Cooperating Agencies had less concerns regarding the Washington Alternative. More importantly, it avoids conflicts with Caltrans ROW and federally protected resources, and avoids major utility

conflicts that are more prominent along the SR 60 Alternative.

NEXT STEPS

Upon Board approval, staff will notify FTA of the decision to discontinue the NEPA environmental study and will continue to advance the environmental study pursuant to CEQA. The environmental study will evaluate the adopted project alternative, MSF options, and initial operating segments. An update to the Board is anticipated in summer/fall 2020.

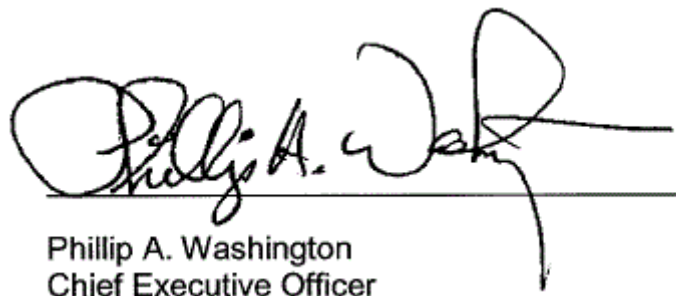
Upon Board approval of the feasibility study, a scope of work will be developed immediately for technical work and community engagement, and Metro staff will report back in six months on the progress of the feasibility study.

ATTACHMENTS

Attachment A - SR 60 and Combined Alternatives Issues and Constraints Report
Attachment B - Eastside Transit Corridor Phase 2 Title IV Service Equity Analysis

Prepared by: Jenny Cristales-Cevallos, Senior Manager, Countywide Planning & Development, (213) 418-3026
Lauren Cencic, Senior Director, Countywide Planning & Development, (213) 922-7417
David Mieger, SEO, Countywide Planning & Development, (213) 922-3040

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



Phillip A. Washington
Chief Executive Officer

San Gabriel Valley Transit Feasibility Study

Planning and Programming Committee
May 20, 2020
Legistar File No. 2020-0255

Recommendations

RECEIVE AND FILE response to Board Motion Item 8.1 on the February 2020 Board report:

- Prepare a feasibility study to evaluate high-quality transit service options to serve the San Gabriel Valley, and
- Include recommendations for a Funding Plan for the San Gabriel Valley and Gateway Cities subregions that encompasses Measure R and Measure M funding for Eastside Transit Corridor Phase 2 to demonstrate subregional equity

Project Background

- Measure M identifies 2 cycles of funding for Eastside Phase II project (ESP2).
- SR-60 Alternative studied as a part of ESP2.
- In February 2020, the Metro Board:
 - Approved the removal of the SR-60 and Combined Alternatives from ESP2 due to constraints, and
 - Directed staff to conduct a feasibility study and recommend a funding plan.

Feasibility Study

- Build on the analysis developed during early work for ESP2.
- Identify short- and long-term solutions to serve the SR 60 corridor cities and potentially communities near the Los Angeles County/San Bernardino County border.
- Consider opportunities to potentially provide new connections to the Foothill section of Metro L (Gold) Line, Metrolink and/or Foothill Transit lines.
- Study multiple transit modes, including but not limited to, BRT and monorail.

Funding Plan Recommendation

- Retain all funding for cycle 1 project.
- Accelerate San Gabriel Valley use of Measure M funding subject to finding that other Measure M projects are not impacted.
- Exclude Measure M inflation adjustments.
- Reduce Measure M for cycle 2 by approximately \$700 to \$750 million.

Next Steps

Pending Metro Board approval and budget availability, staff will

- Continue to develop scope of services for both technical and outreach services for the San Gabriel Valley feasibility study
- Report back to the Board after the procurement process



Board Report

File #: 2020-0293, **File Type:** Informational Report

Agenda Number: 12.

FINANCE, BUDGET AND AUDIT COMMITTEE MAY 20, 2020

SUBJECT: MANAGEMENT AUDIT SERVICES FY 2020 THIRD QUARTER REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Management Audit Services (MAS) quarterly report for the period ending March 31, 2020.

ISSUE

MAS is required to provide a quarterly activity report to Metro's Board of Directors that includes information on audits that have been completed or in progress including information related to audit follow-up activities.

BACKGROUND

It is customary practice for Management Audit Services to deliver the quarterly audit report. This report covers Q3 of FY 2020.

DISCUSSION

MAS provides audit support to Metro's Chief Executive Officer (CEO) and the CEO's senior leadership team in support of the agency's ability to provide responsive, accountable and trustworthy governance. The department performs internal and external audits. Internal audits evaluate the processes and controls within the agency while external audits analyze contractors, cities and/or non-profit organizations that are recipients of Metro funds. The department delivers management audit services through functional groups which are Performance Audit, Contract, Financial and Compliance Audit, and Audit Support. Performance Audit is mainly responsible for internal audits related to Operations, Finance and Administration, Planning and Development, Program Management, Information Technology, Communications, Risk, Safety and Asset Management including the Chief Executive Office and other internal areas. Contract, Financial and Compliance Audit is primarily responsible for external audits in Planning, Program Management and Vendor/Contract Management. MAS's functional units provide assurance to the public that internal processes and programs are being managed efficiently, effectively, economically, ethically, and equitably and that

desired outcomes are being achieved. This assurance is provided by the MAS's functional units conducting audits of program effectiveness; economy and efficiency, internal controls, and compliance. Audit Support is responsible for administration, financial management, budget coordination, and audit follow-up and resolution tracking.

The summary of MAS activity for the quarter ending March 31, 2020 is as follows:

Internal Audits: Two internal audits were completed during the third quarter; and 11 internal audits were in progress.

Contract, Financial and Compliance Audits: Seven contract, financial and compliance audits with a total value of \$6.8 million were completed during the third quarter; and 105 contract, financial and compliance audits were in progress.

Other Audits: 133 other audits were issued by external CPA firms.

Audit Follow-up and Resolution: Three recommendations were closed during third quarter.

*Note: MAS performs audit follow-up for the Office of Inspector General (OIG), which 60 OIG recommendations were closed during the reporting period.

The third quarter FY 2020 report is included as Attachment A.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Receive and file for this item supports Metro Vision 2028 Goal #5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

NEXT STEPS

Management Audit Services will submit the Receive and File report for FY 2020 year-end audit activity in August 2020.

ATTACHMENT

A. Management Audit Services Third Quarterly FY 2020 Report

Prepared by: Monica Del Toro, Audit Support Manager
(213) 922-7494

Reviewed by: Shalonda Baldwin, Chief Auditor, Interim
(213) 418-3265



Phillip A. Washington
Chief Executive Officer

**MANAGEMENT AUDIT SERVICES
QUARTERLY REPORT TO THE BOARD**

**Los Angeles County Metropolitan
Transportation Authority**

***Third Quarter
FY 2020***



Metro

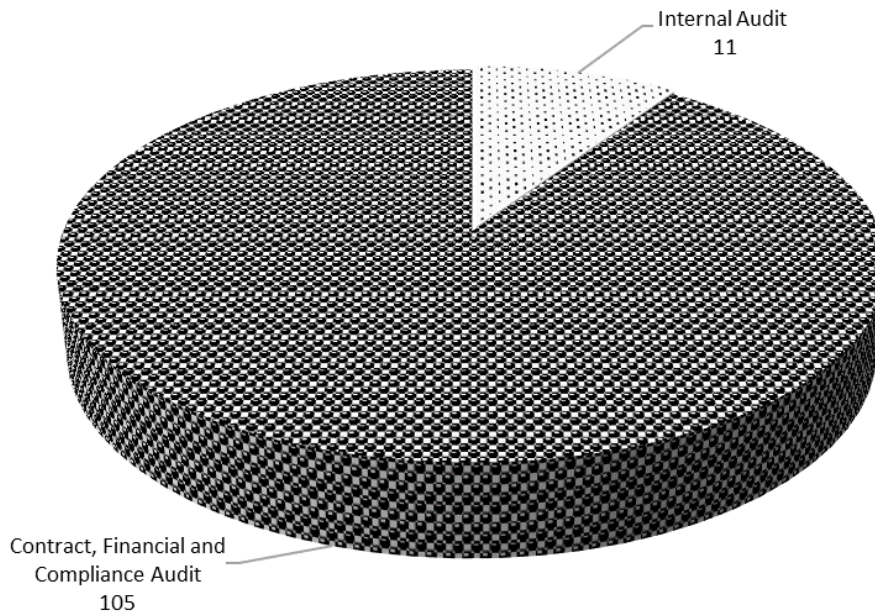
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EXECUTIVE SUMMARY

Summary of In Progress Audit Activity

Management Audit Services (MAS) have 116 in progress projects as of March 31, 2020; which include 11 internal audits and 105 contract, financial and compliance audits. The in progress internal audits are listed in Appendix A.



There are 60 open audit recommendations as of March 31, 2020. In addition, there are 46 open OIG audit recommendations.

EXECUTIVE SUMMARY

Summary of Q3 Completed Audit Activity

MAS completed 142 projects and closed 63 recommendations during Q3 FY 2020, January 1 through March 31, 2020.

The projects comprised of two internal audits; seven contract, financial and compliance audits; 133 other audits and are as follow:

Internal Audits

- Performance Audit of Benefit Eligibility; and
- Performance Audit of Accident Prevention Practices.

Contract, Financial and Compliance Audits

- Three Independent Auditor's Report on Agreed-Upon Procedures of Civil Works Engineers' final indirect cost rate for fiscal years 2013, 2014 and 2015 for the I-710 Corridor Project Environmental Impact Report / Study;
- Independent Auditor's Report on Agreed-Upon Procedures of Civil Works Engineers' interim incurred cost for fiscal years 2013-2015 for the I-710 Corridor Project Environmental Impact Report / Study;
- Independent Auditor's Report on Agreed-Upon Procedures for the close-out incurred costs of City of Glendale's SR-134 Glendale Avenue Interchange Modification Project;
- Independent Auditor's Report on Agreed-Upon Procedures for the close-out incurred costs of City of Torrance's ITS and Traffic Improvements Project; and
- Independent Auditor's Report on Agreed-Upon Procedures for the close-out incurred costs of City of Glendale's Ocean View Boulevard Traffic Signals Installation and Modification Project.

Other Audits

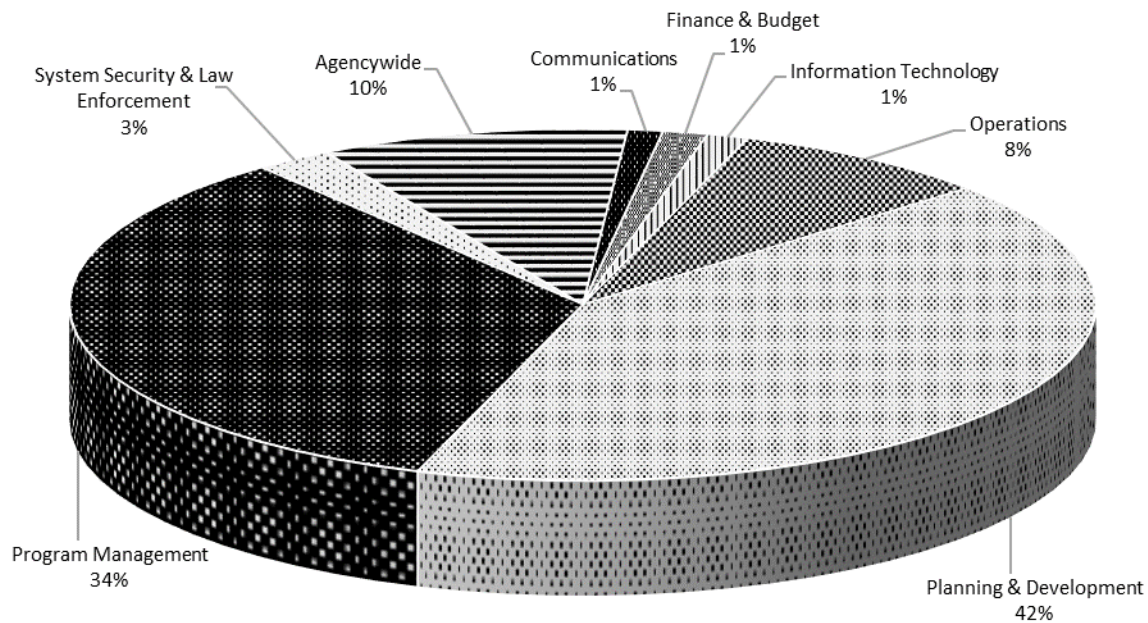
- 133 other audits issued by external Certified Public Accountant (CPA) firms.

Audit Follow-Up:

- Three recommendations were closed during the third quarter. In addition, MAS closed 60 OIG recommendations.

EXECUTIVE SUMMARY

The following chart identifies the functional areas which MAS staff focused efforts during Q3 FY 2020:



The internal audits are highlighted on page 4. The completed contract, financial and compliance audits are highlighted on page 5. The other audits issued by external CPA firms are highlighted on page 6. A summary of closed and open audit recommendations for MAS and OIG are included on page 9.

INTERNAL AUDITS

The following two internal audits were issued in Q3 FY 2020:

Performance Audit of Benefit Eligibility

The audit objective was to determine whether eligibility verification was performed by the Pension and Benefits department for all new hires, qualified events and open enrollments.

MAS found that in general, eligibility verification was properly performed for all new hires, qualified events and open enrollments with some exceptions. Specifically, we found that dependent's eligibility verification was properly performed for all new hires, qualified events and open enrollments in a timely manner by the Pension and Benefits department for 20 of the 26 total samples tested. However, there were six instances where manual processes and controls were inadequate to prevent errors and fully comply with the HR11 Policy and the Standards for the Internal Control in the Federal Government (Green Book). Management concurred with all recommendations and is implementing the corrective actions.

Performance Audit of Accident Prevention Practices

The audit objective was to assess progress made in six key areas since MAS issued Report No. 10-OPS-006 for Bus Accident Prevention in September 2012 and identify improvement opportunities that may reduce accidents.

MAS found that Metro has made progress since September 2012 in transportation accident prevention. For example, the Operations department established the Transportation Directive 12-004 Hard Time Suspensions, and in most instances was aligned with the Directive. Also, a systematic tracking pilot was launched to report and track unsafe conditions including all near misses and hazardous conditions; and three firms were retained for the development and implementation of a safety engagement and recognition program. However, we did note one repeat finding related to the Field Observation and Feedback Program from the previous audit. In addition, we identified improvement opportunities related to the key performance indicators and safety incentives in place. Management concurred with all recommendations and are implementing corrective actions.

CONTRACT, FINANCIAL AND COMPLIANCE AUDITS

MAS' Contract, Financial and Compliance Audit unit conducts audits of Planning and Development's Call-for-Projects program, Program Management's highway projects, federally funded transportation programs, including various other transportation related projects and Caltrans projects. The purpose of the Contract, Financial and Compliance Audit is to ensure that funds are expended in accordance with the terms of the grants and/or contracts including federal cost principles.

MAS staff completed seven contract, financial and compliance audits during Q3 FY 2020. MAS staff reviewed \$6.8 million of funds and identified \$340 thousand or 5% of funds that may be reprogrammed.

Details on Contract, Financial and Compliance Audits completed during Q3 FY 2020 are included in Appendix B.

FINANCIAL AND COMPLIANCE AUDITS OF METRO

Financial and compliance audits of Metro completed during Q3 FY 2020 by external CPA firms include:

Consolidated Audit – Issued various dates

These financial and compliance audits are needed to ensure that the recipients (e.g. 88 cities) of subsidies included in the Consolidated Audit are adhering to the statutes of each applicable funding source. The Consolidated Audit includes financial and compliance audits for the fiscal year ended June 30, 2019 for Prop A & C, Measure R, Measure M and other programs.

MAS contracted with two firms, Simpson & Simpson, CPAs (Simpson) and Vasquez & Company (Vasquez), to conduct the financial and compliance audits of the following programs for the year ended June 30, 2019:

- Local Funding Program to 88 cities and Unincorporated Los Angeles County
 - Proposition A Local Return
 - Proposition C Local Return
 - Measure M Local Return
 - Measure R Local Return
 - Transit Development Act (TDA) Article 3, Article 4 and Article 8 Programs
 - Proposition A Discretionary Incentive Program
- Prop A Discretionary Incentive Grant
 - Antelope Valley Transit Authority
 - Pomona Valley Transportation Authority
- Transit System Operators of Commerce, Redondo Beach, Torrance
 - Transit System Funds
 - Measure M 20%
 - Measure R 20%
- Proposition A Growth Over Inflation (GOI) Fund to Burbank, Glendale, LADOT and Pasadena
- Fare Subsidies Programs
 - Immediate Needs Transportation Program (INTP)
 - Support for Homeless Re-Entry (SHORE) Program
 - Low-Income Fare is Easy (LIFE) Program
- Metrolink Program
- EZ Transit Pass Program
- Access Services
- LADOT

FINANCIAL AND COMPLIANCE AUDITS OF METRO

Local Return

Proposition A and C

Vasquez and Simpson found that the County and Cities, with the exception of the City of South El Monte, complied, in all material respects, with the Guidelines and Requirements in the Ordinances that could have a direct and material effect on the Proposition A and Proposition C Local Return programs for the year ended June 30, 2019.

The auditors found 56 instances of non-compliance for Proposition A and C, consisting of 36 minor findings related to untimely form submittals. Twenty findings with questioned costs totaling \$2 million for Proposition A and \$2.4 million for Proposition C represent approximately 1% of each total fund reviewed. The Local Return Program Manager is working with the cities to resolve the findings. The respective auditors will validate the resolution of the findings identified in these audits in the following years' audits.

Measure R

Vasquez and Simpson found that the County and Cities, with the exception of the City of South El Monte, complied in all material respects, with the Guidelines and Requirements in the Ordinance that could have a direct and material effect on the Measure R Local Return program for the year ended June 30, 2019.

The auditors found 23 instances of non-compliance for Measure R, consisting of 13 minor findings related to untimely form submittals. Ten findings with questioned costs totaling \$2 million for Measure R represent approximately 2% of the total amount reviewed. The Local Return Program Manager is working with the cities to resolve the findings. The respective auditors will validate the resolution of the findings identified in these audits in the following years' audits.

Measure M

Vasquez and Simpson found that the County and Cities, with the exception of the City of South El Monte, in all material respects, with the Guidelines and Requirements in the Ordinance that are applicable to the Measure M Local Return program for the fiscal year ended June 30, 2019. The Measure M Local Return audit results were presented to the Measure M Independent Taxpayer Oversight Committee (MMITOC) on March 4, 2020.

The auditors found 20 instances of non-compliance for Measure M, consisting of 14 minor findings related to untimely form submittals. Six findings with questioned costs totaling \$856 thousand for Measure M represent less than 1% of the total amount reviewed. The Local Return Program Manager is working with the cities to resolve the findings. The respective auditors will validate the resolution of the findings identified in these audits in the following years' audits.

FINANCIAL AND COMPLIANCE AUDITS OF METRO

Non-Local Return

The auditors found that schedules/financial statements for the various programs included in the Consolidated Audit present fairly, in all material respects. They also found that the entities complied, in all material respects, with the compliance requirements of their respective guidelines. However, the auditors noted several compliance findings; eight findings for Metrolink program and sixteen findings for the TDA Article 3 program. Fifteen compliance findings were also identified in Fare Subsidies Programs; ten in the Immediate Needs Transportation Program (INTP) and five in the Low-Income Fare is Easy Program. Metro Program Managers are working with the funds recipients to resolve the findings. The respective auditors will validate the resolution of the findings identified in these audits in the following years' audits.

A receive and file report with additional details on the Consolidated Audit will be brought to the committee in the coming months.

Metro ExpressLanes Fund Financial Statements – Issued February 2020

MAS contracted with BCA Watson Rice LLP (BCA) to conduct an audit of the financial statements of Metro ExpressLanes, an enterprise fund of Metro, for the period July 1, 2019 to January 31, 2020. BCA found that the financial statements present fairly, in all material respects, the financial position of the Metro ExpressLanes Fund as of January 31, 2020, and the changes in the fund's financial position and cash flows for the period then ended in accordance with accounting principles generally accepted in the United States of America.

AUDIT SUPPORT

Audit Follow-Up and Resolution

The tables below summarize the audit recommendations closed during Q3 FY 2020 and open recommendations as of March 31, 2020. Details of open audit recommendations for MAS and OIG are included in Appendix C and D.

MAS and External Audit Recommendations

Executive Area	Closed	Late	Extended	Not Yet Due/Under Review	Total Open
Communications			1		1
Finance & Budget			1	3	4
Human Capital & Development				5	5
Operations	1		10	25	35
Planning and Development	2				
Program Management				1	1
Risk, Safety & Asset Management				5	5
Systems Security and Law Enforcement				5	5
Vendor/Contract Management				4	4
Total	3		12	48	60

OIG Audit Recommendations

Executive Area	Closed	Late	Extended	Not Yet Due/Under Review	Total Open
Communications	4				
Human Capital & Development	1			10	10
Operations	34		6	11	17
Systems Security and Law Enforcement	21			19	19
Total	60		6	40	46

Appendix A

Internal Audit - In Progress Audits as of March 31, 2020						
No.	Area	Audit Number & Title	Description	Frequency	Requirement	Estimated Date of Completion
1	Systems Security and Law Enforcement	19-RSK-P01 Performance Audit of System Security & Law Enforcement's Continuity of Operations Plan (COOP)	Evaluate the adequacy of System Security and Law Enforcement's COOP and Standard Operating Procedures (SOPs) to support mission essential functions during emergencies.	2nd Time; Last Audit 9 years ago	Per FY18 Audit Plan	4/2020
2	Vendor/Contract Management	17-VCM-P02 Performance Audit of Change Order Internal Controls	Evaluate the adequacy and effectiveness of internal controls over the Contract Change Order Process, and to evaluate the utilization of Key Information by VCM.	First Time	Per FY17 Audit Plan	4/2020
3	Human Capital & Development / Finance & Budget	17-OMB-P04 Performance Audit of Position Reconciliation Process	Evaluate the adequacy of the Position Reconciliation Process between the cost centers, Human Capital & Development and Office of Management and Budget.	2nd Time; Last Audit 9 years ago	Per FY17 Audit Plan	4/2020
4	Operations	19-OPS-P01 Performance Audit of Wayside Systems Engineering & Maintenance Training Phase I	Determine whether existing and newly hired employees of Wayside Systems Engineering & Maintenance completed the required training (technical, safety, and mandated) including required refresher courses; required certification per position is current; and employees have the right certification for the tasks assigned.	First Time	Per FY19 Audit Plan	5/2020
5	Operations	20-OPS-P03 Performance Audit of Wayside Systems Engineering & Maintenance Training Phase 2	Review and evaluate the adequacy of the rail engineering & maintenance technical, safety, and mandated training provided to Wayside Track, Signal and the Traction Power units.	First Time	Per FY19 Audit Plan	5/2020
6	Operations	20-OPS-P04 Performance Audit of Contract Compliance for Parkwood Maintenance Contracts	Determine Parkwood's compliance and required performance with contractual terms and conditions for select areas for the period from November 15, 2015 (contract inception) to October 30, 2019.	First Time	Per FY20 Audit Plan	5/2020
7	Operations / Systems Security and Law Enforcement	18-AGW-P01 Performance Audit of Internal Controls over Overtime Payments for AFSCME	Evaluate adequacy of the internal controls over overtime payments for AFSCME union employees for selected positions.	2nd Time; Last Audit 2 years ago	Per FY18 Audit Plan	5/2020
8	Operations / Risk, Safety / Environmental Compliance	20-OPS-P01 Performance Audit of Personal Protective Equipment for Maintenance	Determine the adequacy of training and utilization of personal protective equipment by Metro workers performing clean-ups of Metro facilities impacted by activities of homeless individuals.	First Time	Per FY18 Audit Plan	6/2020
9	Agency-Wide	20-CEO-P01 CRRC Supply Chain Special Review	A limited review of CRRC's use of assemblies, parts and supplies containing any quantity of the mineral mica in the manufacture of the HR4000 heavy rail cars procured by Metro. This engagement will also evaluate the transparency of the sourcing of any mica used by CRRC to determine whether any child or forced labor might be involved at the upstream (mining) end of the supply chain.	First Time	Per FY20 Audit Plan	6/2020
10	Agency-Wide	20-ITS-P01 Performance Audit of IT Security Awareness	Evaluate the extent of information technology security awareness for selected business units within the Agency.	First Time	Per FY20 Audit Plan	7/2020

Appendix A

Internal Audit - In Progress Audits as of March 31, 2020						
No.	Area	Audit Number & Title	Description	Frequency	Requirement	Estimated Date of Completion
11	Communications / Finance & Budget	20-COM-P01 Performance Audit of Expanded Discount Programs	Determine the adequacy and effectiveness of internal controls over the expanded discount (special fares for patrons) programs.	2nd Time; Last Audit 3 years ago	Per FY18 Audit Plan	8/2020

Appendix B

Contract, Financial and Compliance Audit - Audits Completed During Third Quarter						
No.	Area	Audit Number & Type	Auditee	Frequency	Requirement	Date Completed
1	Planning & Development	17-PLN-A17A - Agreed-Upon Procedures	Civil Works Engineers	Once	V/CM Policy and Contract Terms	1/2020
2	Planning & Development	17-PLN-A17B - Agreed-Upon Procedures	Civil Works Engineers	Once	V/CM Policy and Contract Terms	1/2020
3	Planning & Development	17-PLN-A17C - Agreed-Upon Procedures	Civil Works Engineers	Once	V/CM Policy and Contract Terms	1/2020
4	Planning & Development	17-PLN-A17D - Agreed-Upon Procedures	Civil Works Engineers	Once	V/CM Policy and Contract Terms	1/2020
5	Program Management	19-HWY-A03 - Closeout	City of Glendale	Once	Per Project Manager's request and MOU.MR310.16 terms	1/2020
6	Planning & Development	19-PLN-A17 - Closeout	City of Torrance	Once	Per Project manager's request and FA. 920000000F3312 terms	2/2020
7	Program Management	19-HWY-A12 - Closeout	City of Glendale	Once	Per Project Manager's request and MOU.310.17 terms	3/2020

Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
1	Communications	16-COM-P01 Special Fares Programs	21	We recommend the Communications Department to renew the agreement with the Court to confirm mutual agreement. Update: Closed as of April 2020.	3/31/2017	12/31/2019
2	Operations	17-OPS-P07 Performance Audit of the Track Allocation Process	4a	We recommend the Chief Operations Officer consider directing Rail Operations to add more fields in the electronic Track Allocation Request Form to assist Rail Operations Controllers in minimizing some of their manual entries. For example, the Track Allocation Request Form could be further configured to include a check box indicating if the schedule was activated or not, as well as the time and date it was activated, and a drop down menu to include reasons for schedule modification. Update: This recommendation is about 30% complete. Operations is developing an electronic Track Allocation Form/Schedule, integrating System Generated Special Events Calendar, generating an electronic Work Permit, and generating System Reports.	6/30/2019	4/30/2020
3	Operations	17-OPS-P07 Performance Audit of the Track Allocation Process	4b	We recommend the Chief Operations Officer consider directing the Track Allocation Coordinator to measure effectiveness of schedules by periodically assessing whether crews that were scheduled to access the ROW actually accessed the ROW. This will provide visibility to the stakeholders as well as assist the Track Allocation Coordinator in modifying future schedules. This periodic review will only be possible once the data from the newly implemented log has been collected. Update: Pending completion of recommendation 4a.	6/30/2019	4/30/2020
4	Finance & Budget	16-VCM-P01 Performance Audit of Purchase Card (P-Card) Program	4	We recommend that Accounts Payable coordinate with Information Technology Systems and the Agency Program Coordinator to automate the approval process to improve processing time of P-Card statements as well as authentication of the approvers. Update: Accounting staff met with ITS to discuss the approval process automation project for P-Card. Based on current workload, approval workflow, testing and user training will be implemented by March 31 2020.	8/30/2019	3/31/2020
5	Systems Security and Law Enforcement	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	1a	We recommend that the Emergency Management Unit collaborate with the business units, starting with V/CM, to ensure that the business unit COOPs, and all related documents (e.g., SOPs), include the essential content necessary to support the agency-wide program.	6/30/2020	

Any findings that have not been corrected 90 days after the due date are reported as late.

Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
6	Vendor/Contract Management	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	1b	We further recommend that over the next 12 to 18 months, V/CM should consider focusing its efforts on completing and including the following content with Emergency Management's support and guidance: criteria for COOP activation and relocation decisions; flow charts and decision trees; step-by-step instructions applicable to Gateway or agency-wide emergencies; names, titles and contact details such as phone numbers and emails for all continuity personnel (e.g., Advance Team, CMG, and successors); distribution and logistics dependencies, such as MEFs, mission essential systems, records, databases, supplies and equipment; mission essential records and database storage locations.	10/30/2020	
7	Vendor/Contract Management	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	2	We recommend that V/CM management review and reassess the COOP and SOPs periodically to verify that any resulting updates are implemented, including updating V/CM's COOP contact details in the event of key personnel changes.	4/30/2020	
8	Vendor/Contract Management	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	3	We recommend that V/CM management work with Emergency Management to arrange for COOP execution training by an emergency management expert concurrently with each annual update.	7/31/2020	
9	Program Management	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	4	We recommend that the Chief Program Management Officer take the lead role in collaborating with all responsible parties, such as V/CM, Project Delivery Third Party Coordination, County Counsel, etc., to establish agreements with utility companies to guarantee service continuity and restoration in emergency situations.	3/31/2020	
10	Vendor/Contract Management	18-RSK-P01 Performance Audit of Vendor / Contract Management's (V/CM's) Continuity of Operations Plan (COOP)	5	We recommend that V/CM management consider referencing all the existing COOP-related SOPs to the COOP and/or attaching them as appendices to the COOP, doing the same to the SOPs under development as they are completed.	10/30/2020	
11	Operations	18-ITS-P01 Performance Audit of the HASTUS System – Implementation of Collective Bargaining Agreement Changes	5	We recommend Operations management immediately perform all the needed corrections for underpayments and overpayments for all LIP eligible hours from July 1, 2017 to date. Update: Operations' staff prepared a detailed LIP retroactive pay calculation; however, adjustments will need to be made once the automated fix is complete.	12/31/2019	3/31/2020

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Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
12	Operations	18-ITS-P01 Performance Audit of the HASTUS System – Implementation of Collective Bargaining Agreement Changes	6	We recommend Operations management, after completing recommendation number 5 above, partner with ITS to perform periodic true ups to determine any over/underpayment, and submit required corrections to Payroll regularly and in a timely manner until calculations can be automated. Update: ITS / Operations has implemented an automated fix; pending MAS testing to confirm success.	12/31/2019	3/31/2020
13	Operations	18-ITS-P01 Performance Audit of the HASTUS System – Implementation of Collective Bargaining Agreement Changes	7	We recommend Operations management reinforce the training with the Division Staff to properly record all LIP eligible hours and pay codes including special conditions for non-certified Line Instructors. Update: ITS / Operations has implemented an automated fix; pending MAS testing to confirm success.	12/31/2019	3/31/2020
14	Operations	18-ITS-P01 Performance Audit of the HASTUS System – Implementation of Collective Bargaining Agreement Changes	8	We recommend Operations management collaborate with ITS, in consultation with Employee and Labor Relations, to assess possibilities to automate LIP calculations and reporting as practical in either HASTUS or the Payroll system. Update: ITS / Operations has implemented an automated fix; pending MAS testing to confirm success.	12/31/2019	3/31/2020
15	Operations	18-ITS-P01 Performance Audit of the HASTUS System – Implementation of Collective Bargaining Agreement Changes	12	We recommend Operations management immediately partner with ITS department in determining any underpayments due to fallback hours, and make timely corrections necessary for all holidays starting May 2018 to date. Update: Management prepared an underpayment calculation. MAS validated the calculation on a test basis. The retroactive pay correction is now pending Rail management approval to pay.	9/30/2019	3/31/2020
16	Systems Security and Law Enforcement	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	1	We recommend that Emergency Management should coordinate with Payroll to facilitate training and add the additional details to Finance (Payroll)'s COOP and SOPs, including criteria for COOP activation and relocation decisions, flow charts, decision trees and step-by-step instructions.	2/28/2021	
17	Systems Security and Law Enforcement	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	2	We recommend that Emergency Management should coordinate with Payroll to create an SOP template to include names, titles and contact details (phone numbers and emails) for all continuity personnel, such as the CMG, key continuity positions and successors. Advance team references should state "provided by ITS".	7/31/2020	

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Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
18	Systems Security and Law Enforcement	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	3	We recommend that Emergency Management should coordinate with Payroll to review and assess the COOP and SOPs annually and verify that any resulting updates are implemented.	7/31/2020	
19	Systems Security and Law Enforcement	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	4	We recommend that Emergency Management should coordinate with Payroll to schedule COOP execution training by an emergency management expert concurrently with each annual COOP update.	7/31/2020	
20	Finance & Budget	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	5	We recommend that Payroll management update the SOP contact details as requested by Emergency Management on a periodic basis, e.g., quarterly or semi-annually, or when Accounting Administration issues a revised organization chart with changes to Payroll key personnel.	7/31/2020	
21	Finance & Budget	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	6	We recommend that Payroll management add language for the roster of trained personnel (Appendix E): "ITS will assign personnel at the backup site".	8/30/2020	
22	Finance & Budget	18-RSK-P02 Performance Audit of Finance (Payroll)'s Continuity of Operations Plan	7	We recommend that Payroll management consolidate all the COOP-related SOP information into one document. The existing COOP-related SOPs should be referenced and attached as appendices to Finance (Payroll)'s COOP, and SOPs under development should be referenced to and attached as they are completed.	7/31/2020	
23	Operations	19-OPS-P02 Performance Audit of the Rail Communications Systems	12 Total	The recommendations included in this report address findings in Metro's Operational System. Update: As of April 2020, 1 of 12 recommendations was closed.		
24	Operations	19-OPS-P03 Performance Audit of the SCADA Security Controls	13 Total	The recommendations included in this report address findings in Metro's Operational System.		
25	Human Capital & Development	19-BEN-P01 Performance Audit of Benefit Eligibility	1	We recommend that the Pension and Benefits department management complete the update of their written HR policy to reflect the procedural changes already in effect as of January 1, 2019.	6/30/2020	

Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
26	Human Capital & Development	19-BEN-P01 Performance Audit of Benefit Eligibility	2	We recommend that the Pension and Benefits department management reduce the possibility of human error occurring in the data entry/invoice preparation process for employee benefits by documenting review process procedures in the policy manual for (i) manual entries that are made into the PTSC/MTA and Carrier systems, (ii) monthly reconciliations for billing and (iii) regular periodic audits comparing PTSC/MTA system entries against Carrier systems, being performed.	6/30/2020	
27	Human Capital & Development	19-BEN-P01 Performance Audit of Benefit Eligibility	3	We recommend that the Pension and Benefits department management identify other techniques to further reduce the possibility of human error occurrence.	6/30/2020	
28	Human Capital & Development	19-BEN-P01 Performance Audit of Benefit Eligibility	4	We recommend that the Pension and Benefits department management develop an e-mail template that could be used to inform employees as inquiries are made, about what plan changes are allowable during mid-year, to supplement guidance already provided in the Benefits Enrollment Guides.	6/30/2020	
29	Human Capital & Development	19-BEN-P01 Performance Audit of Benefit Eligibility	5	We recommend that the Pension and Benefits department management develop a written procedure for properly communicating with employees if errors are made on plan change forms. The communication should be properly documented and retained in the employee's file.	6/30/2020	
30	Risk, Safety & Asset Management	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	1	We recommend that the Chief Risk, Safety & Asset Management Officer implement oversight over the FOF program including the Local Safety Committee (LCS).	3/31/2020	
31	Risk, Safety & Asset Management	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	2	We recommend that the Chief Risk, Safety & Asset Management Officer raise awareness of the FOF program.	3/31/2020	
32	Risk, Safety & Asset Management	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	3	We recommend that the Chief Risk, Safety & Asset Management Officer develop additional input controls in the TransitSafe System, by designating required FOF form fields as mandatory, including Supervisors sign-off to review for accuracy of information, to prevent the close out of FOF records without completion of all required fields and to ensure quality of information is maintained.	7/31/2020	
33	Risk, Safety & Asset Management	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	4	We recommend that the Chief Risk, Safety & Asset Management Officer incorporate recommendation #3, above, in the upcoming replacement system of TransitSafe.	12/31/2021	

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Appendix C

Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
34	Operations	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	5	We recommend that the Chief Operations Officer continue the monitoring of staff compliance with the guidelines in Transportation Directive 12-004, Hard Time Suspensions, with any exceptions to this directive being explained and documented.	2/28/2020	
35	Operations	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	6	We recommend that the Chief Operations Officer consider using a combination of leading and lagging indicators to evaluate the Accident Prevention Program's success.	7/31/2020	
36	Operations	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	7	We recommend that the Chief Operations Officer consider separate measures for avoidable and unavoidable accidents/incidents codes per division to properly evaluate the division's performance instead of measuring the division only on combined avoidable and unavoidable accident data.	7/31/2020	
37	Risk, Safety & Asset Management	16-OPS-P03 Performance Audit of Accident Prevention Practices in the Operations Department	8	We recommend that the Chief Risk, Safety & Asset Management Officer formally request the Transportation division management to consider allocating a meaningful and equitable Safety Incentive Budget for the Accident Prevention Program.	7/31/2020	

Any findings that have not been corrected 90 days after the due date are reported as late.

Appendix D

OIG Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
1	Operations	17-AUD-04 Review of Metro Safety Culture and Rail Operational Safety	9 Total	The 117 recommendations included in this report address findings in Safety Culture, Red Signal Violations, Safety Assessment of Infrastructure Elements, Technology, Operations and Maintenance, Human Resources, and etc. Update: As of January 2020, 108 of 117 recommendations were closed.	Pending	
2	Operations	18-AUD-03 Review of Metro Rail Service Disruptions	9	Set priorities based on Metro's asset assessment as soon as it is completed to reduce delay incidents.	6/30/2019	4/30/2020
3	Operations	18-AUD-03 Review of Metro Rail Service Disruptions	25	Consider converting some P2000 cars running on the MBL/Expo lines back to the MGL operation if the ATO/ATP packages removed earlier are still available. The critical float will be the P2000 MGL cars with their line specific ATO/ATP equipment.	12/31/2020	
4	Operations	18-AUD-03 Review of Metro Rail Service Disruptions	52	Establish a process and a criterion for replacement of existing signal installations that includes useful life of installation, failure rate, obsolescence, service needs, and available funding. While the Metro asset inventory will provide an important resource to this end when it is finished, this system of prioritization should be formalized and implemented in current signal procedures.	6/30/2019	4/30/2020
5	Operations	18-AUD-03 Review of Metro Rail Service Disruptions	57	Establish a process and a criterion for replacement of existing traction power equipment that includes useful life of installation, failure rate, obsolescence, service needs, and available funding. While the Metro asset inventory will provide an important resource when it is finished, this system of prioritization should be formalized and implemented in current signal procedures.	6/30/2019	4/30/2020
6	Operations	19-AUD-07 OIG Spot Check - Bus Operator Battery Reset Practices	4	We recommend that Operations Management consider the engineering adjustments necessary for improved safety of operators or others associated with battery resets that might occur by operators regardless of the new guidelines to cease operator battery resets.	11/30/2019	9/30/2020
7	Operations	19-AUD-07 OIG Spot Check - Bus Operator Battery Reset Practices	5	We recommend that Operations Management consider if battery hatches should be locked the way hatches inside the buses are to prevent unauthorized access.	11/30/2019	9/30/2020
8	Operations	19-AUD-07 OIG Spot Check - Bus Operator Battery Reset Practices	6	We recommend that Operations Management consider if further research on what circumstances or problems are corrected by a soft software reset versus a full battery reset, if it is possible to mitigate risks for software diagnostic damages in the event of a battery reset, and if considering the time it takes for a mechanic to arrive, it might be more efficient to allow the performance of the appropriate reset in those cases.	11/30/2019	9/30/2020

Appendix D

OIG Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
9	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	3	The Metro SSLE Department should consider providing more detailed information on reported crime to distinguish between violent crime and property and petty crime. Update: Closed as of April 2020.	Pending	
10	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	4	The Metro SSLE Department should collect and report response time information for all three categories of calls for service. Update: Closed as of April 2020.	Pending	
11	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	5	The Metro SSLE Department should use the GPS function and data generated to provide reliable and meaningful information on the amount of time contracted law enforcement officers spend on various parts of the Metro System. Update: Closed as of April 2020.	Pending	
12	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	6	The Metro SSLE Department should work with the contract law enforcement agencies to review, revise and adopt Key Performance Indicators (KPI) including baseline or target levels of performance for each KPI. Update: Closed as of April 2020.	Pending	
13	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	9a	LAPD should submit the required payroll records with the monthly invoice. Update: Closed as of April 2020.	Pending	
14	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	10a	LAPD should submit the list of maximum fully burdened hourly rates for each labor classification for overtime in accordance with the contract requirements. Also, the escalation rate included in the calculation of the maximum fully burdened hourly rates should not exceed the maximum escalation rate stipulated in the contract. Update: Closed as of April 2020.	Pending	
15	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	10b	Metro SSLE Department should work with LAPD to ensure that the list of maximum fully burdened hourly rates complied with the contract requirements. Metro should also review the billing rates for overtime for all invoices to determine the extent of overbillings for FY 2018. Update: Closed as of April 2020.	Pending	
16	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	11a	LAPD should submit the list of maximum fully burdened hourly rates for all labor classifications in accordance with the contract requirements. For any additional labor classifications not identified in the list of maximum fully burdened hourly rate, LAPD should submit a revised list to Metro for approval prior to incurring the cost. Update: Closed as of April 2020.	Pending	
17	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	12a	LAPD should return the overbilled and overpaid amount of \$3,874.99 to Metro. Update: Closed as of April 2020.	Pending	

Appendix D

OIG Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
18	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	13a	LAPD should submit the prevailing Cost Allocation Plan (CAP) rate together with the list of maximum fully burdened hourly rates for overtime. Update: Closed as of April 2020.	Pending	
19	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	14a	LAPD should submit to Metro in a timely manner the monthly Summary of Problem-Oriented Policing projects. Update: Closed as of April 2020.	Pending	
20	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	15a	LAPD should provide the equipment in the quantities listed in Exhibit E of the contract. Update: Closed as of April 2020.	Pending	
21	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	17a	LASD should issue an additional credit amount of \$1,699.68 to Metro. Update: Closed as of April 2020.	Pending	
22	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	18a	LASD should submit to Metro in a timely manner the report for number of cases referred for follow-up investigation and the subsequent disposition. Update: Closed as of April 2020.	Pending	
23	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	18b	Metro SSLE Department should work with LASD to resolve any issues regarding the required reports. Also, Metro should continue monitoring LASD's submission of reports to ensure all the required reports were submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures. Update: Closed as of April 2020.	Pending	
24	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	20a	LAPD should inform Metro the amount expected to exceed the estimated cost specified in the contract for each year before incurring the costs. Update: Closed as of April 2020.	Pending	
25	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	21a	LAPD should submit the daily summary of assignments for all hours worked and payroll records with the invoices. Update: Closed as of April 2020.	Pending	
26	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	22a	LAPD should return to Metro the overbilled and overpaid amount of \$14,643.89. Update: Closed as of April 2020.	Pending	
27	System Security and Law Enforcement	19-AUD-10 Metro Security Performance Review Fiscal Year 2018 Report	23	Metro SSLE Department should review the billing methodology specified in the contract for equipment cost and determine whether the contract should be revised. Update: Closed as of April 2020.	Pending	

Appendix D

OIG Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
28	Operations	20-AUD-02 Audit of the Graffiti/Landscaping/Trash Maintenance on the Gold and Orange Lines Right-of-Ways	2	Require the Gold Line Metro PM to perform periodic spot checks to verify the crew members providing trash/vegetation and graffiti abatement services.	2/28/2020	
29	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	1	We recommend that the General Services Department Management develop written policies and procedures covering the use of cable television services.	1/31/2021	
30	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	2	We recommend that the General Services Department Management develop a standard form to be completed by user departments for requesting and justifying the business purpose for cable television.	1/31/2021	
31	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	3	We recommend that the General Services Department Management develop a tracking system to document and monitor the user departments and location of cable television receivers and outlets.	1/31/2021	
32	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	4a	We recommend that the General Services Department Management work with the ITS Department to schedule and conduct a physical count to identify all active cable television lines (and their locations) at Metro's Gateway Building and departments that have cable television service. For departments that have a business need for cable television, require them to complete a request/approval form.	1/31/2021	
33	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	4b	We recommend that the General Services Department Management work with the ITS Department to schedule and conduct a physical count to identify all active cable television lines (and their locations) at Metro's Gateway Building and departments that have cable television service. Cancel any cable television services that cannot be identified to a department and/or has no business purpose.	1/31/2021	
34	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	5	We recommend that the General Services Department Management cancel the internet service on sub-account 320469395; and if there is a legitimate business need for a separate internet account, direct the user department to request internet service under the ITS internet account with Spectrum.	1/31/2021	

Appendix D

OIG Open Audit Recommendations as of March 31, 2020						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
35	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	6	We recommend that the General Services Department Management ensure that fees for cable television services are paid through the appropriate account (50504).	1/31/2021	
36	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	7	We recommend that the General Services Department Management consider working with Spectrum to eliminate all the sub accounts and create one account that includes only those active cable lines that have been identified as having a legitimate business purpose.	1/31/2021	
37	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	8	We recommend that the General Services Department Management research and determine if there are more effective and efficient methods available for providing cable television service in the Gateway building.	1/31/2021	
38	Human Capital & Development	20-AUD-04 Review of Controls Over Cable Television Services at Metro's Gateway Building	9	We recommend that the General Services Department Management consider placing labels on televisions that have cable service, stating "For Business Purpose Only: No appropriate content should be broadcasted."	1/31/2021	

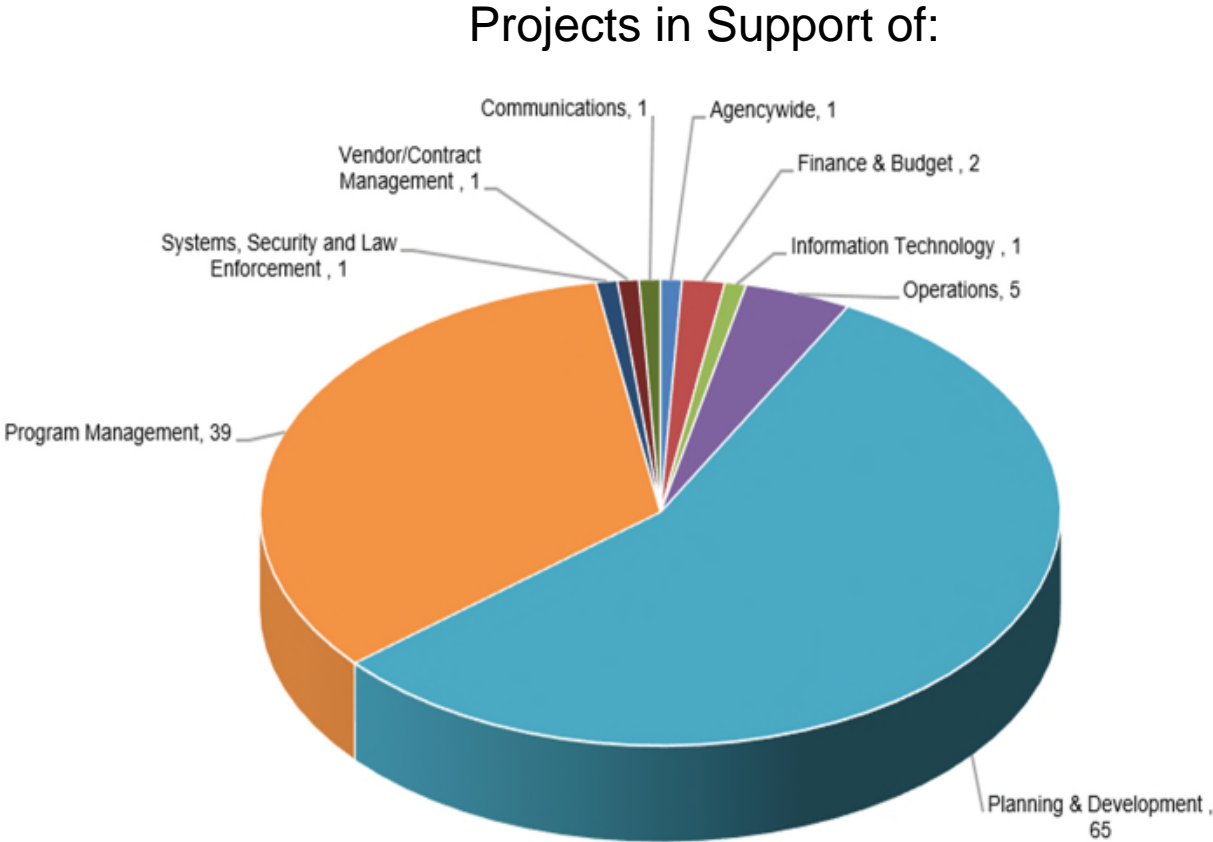
Management Audit Services FY 2020 Third Quarter Report

Finance, Budget & Audit Committee
May 20, 2020



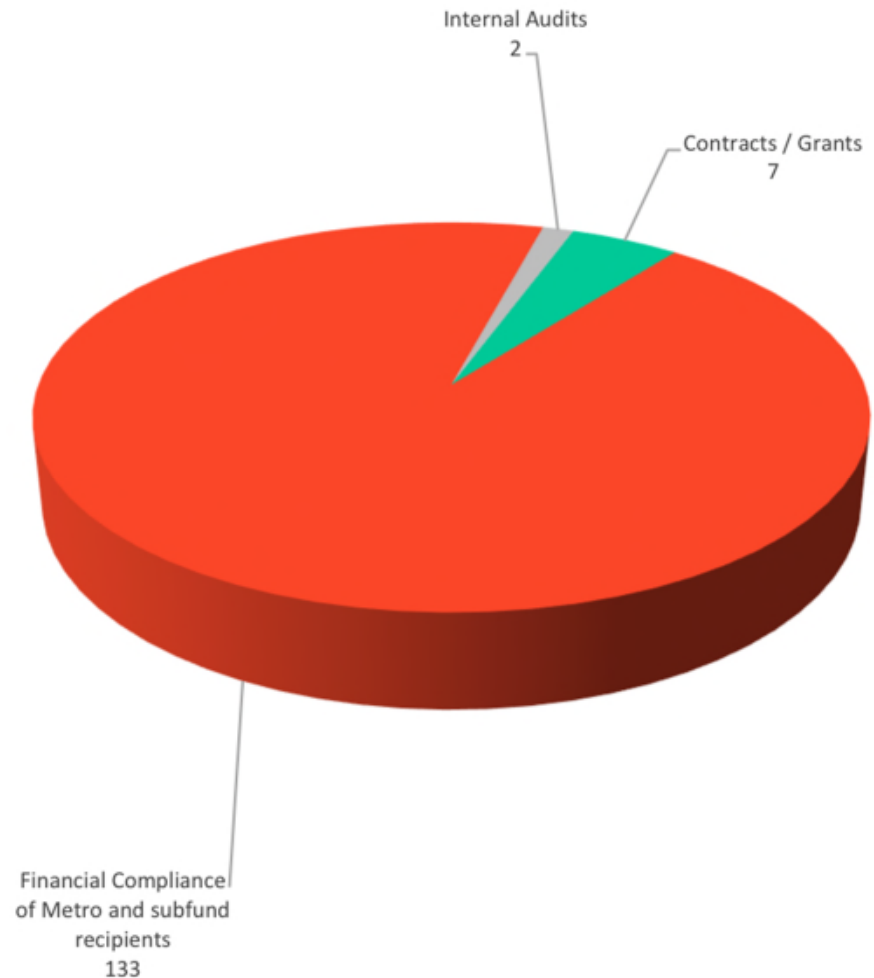
In Progress Audits Summary

- 116 Audit Engagements
 - 105 Contract, Financial and Compliance Audit
 - 11 Internal Audit



Completed Audits Summary

- Internal Performance Audits
 - Benefits Eligibility
 - Accident Prevention Practices
 - Management Concurrence
 - Three Business Improvements
- Contract, Grant and Financial Audits
 - Reviewed \$6.8M of funding
 - Identified \$350K (5%) for reprogramming



Financial and Compliance Audits Highlight

Financial and Compliance – Metro

- Prop A and C
- Measure R
- Measure M
- Metro ExpressLanes Fund Financial Statement

Metro complied in all material respects

Financial and Compliance – Subrecipients

- County and 88 Cities (Subrecipients)
- Comprehensive Consolidated Report (Fall 2020)

County and Cities complied in all material respects

*Exception
City of South El Monte

*Reporting year end June 30, 2019

Financial and Compliance Audit Exception

- City of South El Monte
 - Extension granted by Metro OMB through 3/31/2020
 - Extension approved by State Controller Office through 6/30/2020
- Next Steps
 - Auditors Vasquez & Co continue outreach and audit of City of South El Monte
 - Ongoing monitoring and coordination of MAS and OMB
 - Continued reporting to Oversight Committees

Thank you



Board Report

File #: 2020-0312, **File Type:** Contract

Agenda Number: 18.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
MAY 21, 2020**

SUBJECT: WASTE MANAGEMENT SERVICES

ACTION: APPROVE CONTRACT AWARD

RECOMMENDATION

CONSIDER:

AUTHORIZING the Chief Executive Officer to:

A. AWARD an indefinite delivery indefinite quantity Contract No. OP1484230003367 to American Reclamation, Inc. to provide waste management services throughout Metro B Line (Red), Metro G Line (Orange), Pasadena L Line (Gold) and various bus and rail locations within the geographical area, specified as the North Region, for a not-to-exceed amount of \$3,904,317 for the five-year base period, and \$1,571,479 for the one, two-year option term, for a combined not-to-exceed amount of \$5,475,796, effective June 1, 2020 through May 31, 2027, subject to resolution of protest(s), if any; and

B. AWARD an indefinite quantity/delivery Contract No. OP1484240003367 to American Reclamation, Inc. to provide waste management services throughout Metro A Line (Blue), Metro C Line (Green), E Line (Expo), Gateway Headquarters Building and various bus and rail locations within the geographical area, specified as the South Region, for a not-to-exceed amount of \$3,218,989 for the five-year base period, and \$1,325,033 for the one, two-year option term, for a combined not-to-exceed amount of \$4,544,022, effective June 1, 2020 through May 31, 2027, subject to resolution of protest(s), if any.

ISSUE

The existing waste management services contract will expire on October 31, 2020. To continue providing the required integrated waste management services, two new regional contract awards are required effective June 1, 2020. This action is necessary to allow the incoming contractor sufficient time to acquire new trash and recycling bins for all Metro facilities.

BACKGROUND

On October 25, 2012, Metro Board of Directors authorized the Chief Executive Officer to award a

seven-year, Contract No. PS11064106R to Consolidated Disposal Service, the lowest responsive and responsible bidder for waste management services in an amount not to exceed \$6,993,296 effective December 1, 2012.

To avoid service interruptions and continue providing these critical services, two (2) new contract awards are required effective June 1, 2020.

DISCUSSION

The existing waste management services contract is being replaced with two new regional service contracts split geographically. This action is necessary to expand opportunities for small business participation while maintaining service efficiency and continuity.

The existing contract includes transport and recycling or disposal of solid waste from Metro facilities, provides roll-off containers and dumpsters, and submittal of monthly diversion reports. Most containers are serviced on a regular schedule while others are on an on-call as-needed basis.

Improved diversion is one of many ways that Metro is striving to reduce its environmental impact. These two new contracts are an integral part of Metro's Environmental Management System. The contractor will support the Environmental Compliance and Services unit of the Transit Project Delivery department in education and waste disposal change efforts with front-line employees at all Metro operating facilities. In addition, the contractor will provide on-going analysis of Metro's efforts to reduce landfill waste and improve in-house recycling programs to exceed waste diversion requirements.

Currently, all local government organizations in California are required to divert at least 50% of their waste from landfills. To meet this requirement, Metro's trash-hauling contractor separates and recycles suitable materials from waste materials it collects from all Metro operating, support, office, and passenger facilities. These contracts set goals to improve and exceed the 50% waste diversion requirements over the next seven-years.

The existing contract is due to expire October 31, 2020. However, the two new contracts are required effective June 1, 2020. This action is necessary to allow the outgoing contractor sufficient time to perform all necessary administrative processes associated with contract closeout, and to provide the incoming contractor ample time to acquire new trash and recycling bins for all Metro facilities.

The Diversity and Economic Opportunity Department (DEOD) established a 7% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this solicitation. American Reclamation made a 7% SBE and 3% DVBE participation commitment for each of the North region and the South region contracts.

DETERMINATION OF SAFETY IMPACT

Timely and efficient removal of trash and recycling are important elements of a safe and responsible waste management program.

FINANCIAL IMPACT

The FY20 budget for waste management services is \$941,600, contained in Cost Center 8370 - Contracts and Administration, account 50308 - Service Contract maintenance, in various Operating projects. Current waste management services contracts expire on October 31, 2020 (FY21). To allow for seamless transition to a new contractor and avoid contractual interruptions, this action will put the contract in place for FY21 implementation.

Since these are multi-year contracts, the cost center manager and Sr. Executive Officer, Maintenance and Engineering will be accountable for budgeting the all costs in future fiscal years.

Impact to Budget

The current source of funding for this action are State and Local sources including sales tax and fares. Using these funding sources maximizes the project funding allocations allowed by approved provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This board action supports Strategic Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization. Metro objectives for this contract are to increase efficiency, minimize costs, improve Metro's recycling and landfill diversion programs, reduce the amount of waste that Metro disposes and comply with all applicable Federal, State and Local laws.

ALTERNATIVES CONSIDERED

Staff considered providing this service through Metro in-house staff. This would require the hiring and training of additional personnel, purchase of additional equipment, vehicles, and supplies to support the expanded responsibility. Staff's assessment indicates that this is not a cost-effective option for Metro.

NEXT STEPS

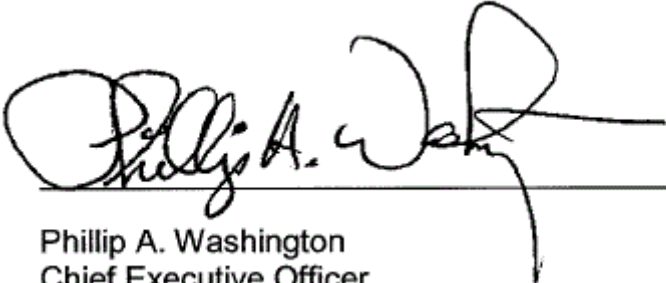
Upon approval by the Board, staff will execute Contracts OP1484230003367 and OP1484240003367 with American Reclamation, Inc. to provide integrated waste management services for the North and South Regions, respectively, effective June 1, 2020.

ATTACHMENTS

Attachment A - Region Maps
Attachment B - Procurement Summary
Attachment C - DEOD Summary

Prepared by: Brady Branstetter, DEO, Facilities Maintenance, (213) 922-6767
Lena Babayan, DEO, Facilities Maintenance, (213) 922-6765

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief, Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

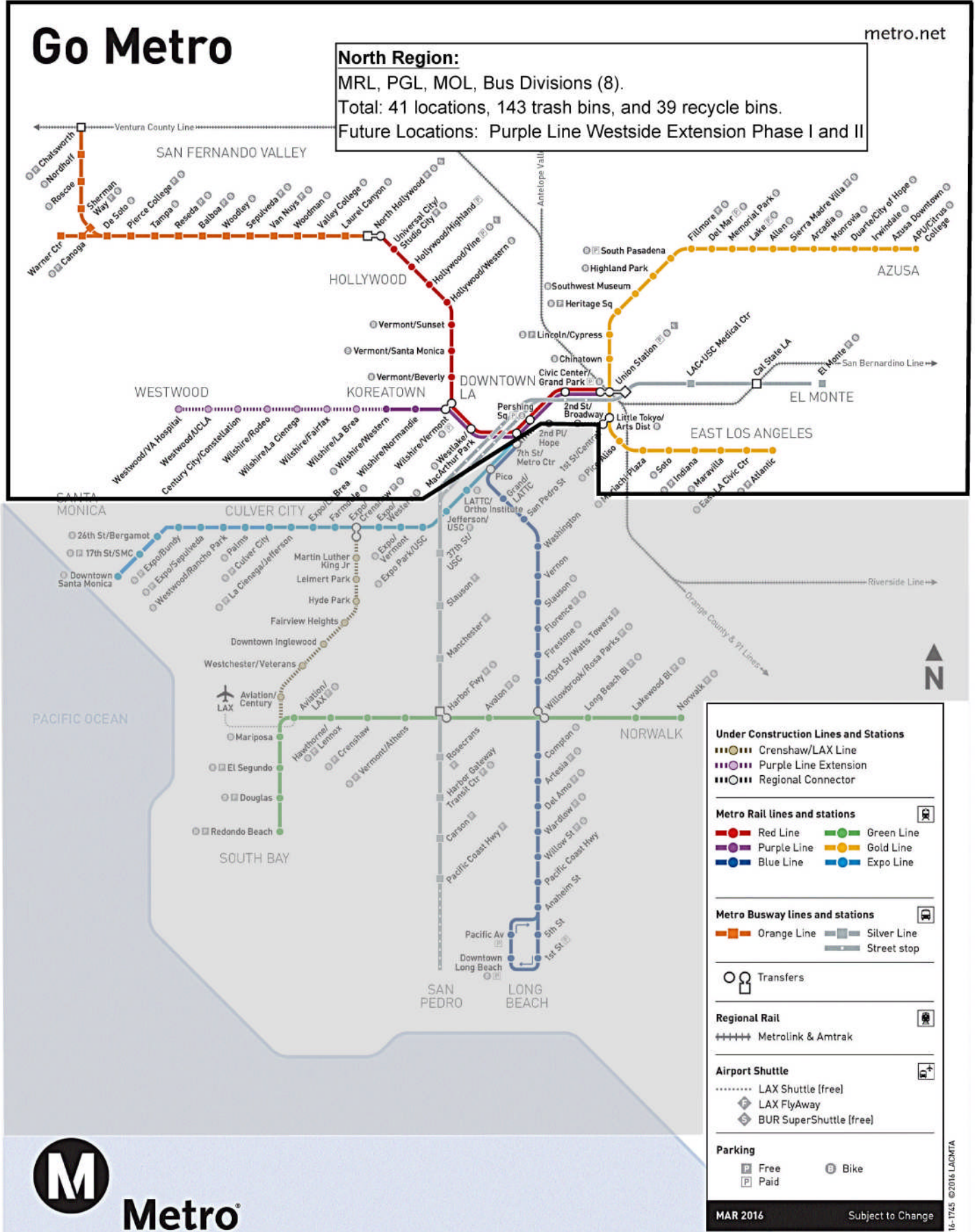
LIST OF SERVICE LOCATIONS

NORTH REGION

metro.net

Go Metro

North Region:
MRL, PGL, MOL, Bus Divisions (8).
Total: 41 locations, 143 trash bins, and 39 recycle bins.
Future Locations: Purple Line Westside Extension Phase I and II



Under Construction Lines and Stations

- Crenshaw/LAX Line
- Purple Line Extension
- Regional Connector

Metro Rail lines and stations

- Red Line
- Purple Line
- Blue Line
- Green Line
- Gold Line
- Expo Line

Metro Busway lines and stations

- Orange Line
- Silver Line
- Street stop

Transfers

Regional Rail

- Metrolink & Amtrak

Airport Shuttle

- LAX Shuttle (free)
- LAX FlyAway
- BUR SuperShuttle (free)

Parking

- Free
- Paid
- Bike

MAR 2016 Subject to Change



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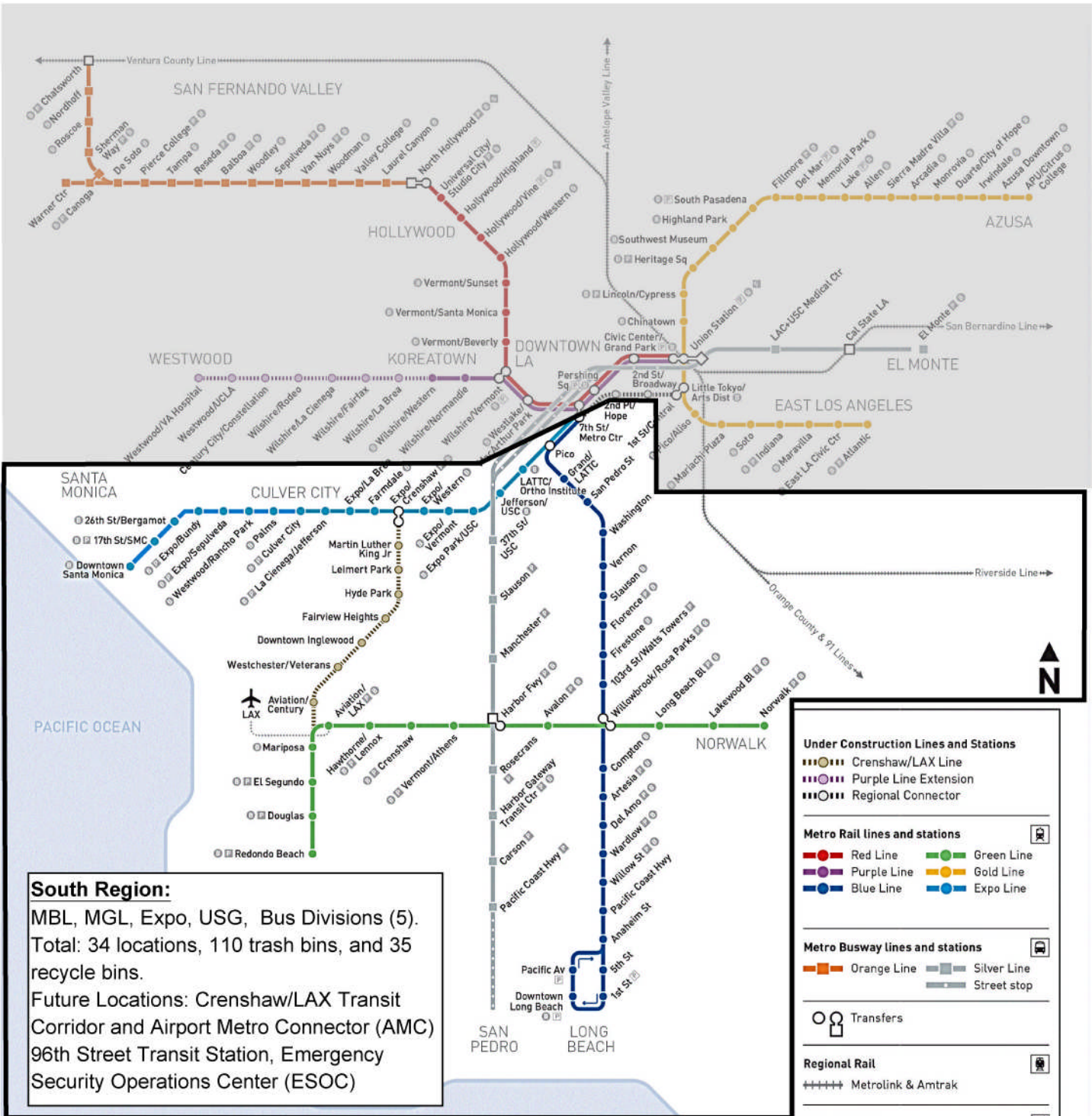
ATTACHMENT A

LIST OF SERVICE LOCATIONS

SOUTH REGION

Go Metro

metro.net



MAR 2016

Subject to Change

16-1745 ©2016 LAGMTA

PROCUREMENT SUMMARY

WASTE MANAGEMENT SERVICES/
OP1484230003367 AND OP1484240003367

1.	Contract Number: A: OP1484230003367 (North Region) B: OP1484240003367 (South Region)	
2.	Recommended Vendor: A: American Reclamation, Inc. (North Region) B: American Reclamation, Inc. (South Region)	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> RFP <input type="checkbox"/> IFB <input type="checkbox"/> IFB-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: June 14, 2019	
	B. Advertised/Publicized: June 18, 2019	
	C. Pre-Proposal/Pre-Bid Conference: June 27, 2019	
	D. Proposals/Bids Due: July 31, 2019	
	E. Pre-Qualification Completed: December 5, 2019	
	F. Conflict of Interest Form Submitted to Ethics: December 2, 2019	
	G. Protest Period End Date: February 24, 2020	
5.	Solicitations Picked up/Downloaded: 19	Proposals Received: North Region: 2 Proposals Received: South Region: 2
6.	Contract Administrator: Rommel Hilario	Telephone Number: (213) 922-4654
7.	Project Manager: Alberto Garcia	Telephone Number: (213) 922-6760

A. Procurement Background

This Board Action is to approve the award of Contracts OP1484230003367 (North Region) and OP1484240003367 (South Region) to American Reclamation, Inc. to provide waste management services at various Metro facilities. Services include, but are not limited to, providing trash and recycling bins of various sizes, servicing trash and recycling bins at various frequencies and provide detailed reporting of trash and recycling efforts and activities. Board approval of contract awards are subject to resolution of any properly submitted protest.

On June 14, 2019, Request for Proposal (RFP) No. OP62840 was issued as a competitive procurement in accordance with Metro's Acquisition Policy. The proposed contract type is indefinitely quantity/delivery.

Two amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on June 28, 2019, revised the Schedule of Quantities and Prices for the North and South Regions and List of Service Locations – South Region; and provided copies of the pre-bid conference material including sign-in sheets and the planholders' list;

- Amendment No. 2, issued on July 17, 2019, extended the proposal due date.

A Pre-Proposal Conference was held on June 27, 2019. A total of six participants attended representing four firms. There were 32 questions received and responses were provided prior to the proposal due date.

A total of two proposals each were received for the North and the South Regions, and are listed below in alphabetical order:

North Region

1. American Reclamation
2. Consolidated Disposal Services, LLC DBA Republic Services

South Region

1. American Reclamation
2. Consolidated Disposal Services, LLC DBA Republic Services

B. Evaluation of Proposals

The Proposal Evaluation Team (PET), consisting of staff from Environmental Services, General Services, and Facility Maintenance departments, was convened and conducted a comprehensive evaluation of the proposals received.

Proposals were evaluated based on the following evaluation criteria stated in the RFP:

Phase I – Minimum Qualification Evaluation: This is a pass/fail criteria. The evaluation focused on the experience of the Prime Contractor in providing integrated waste management services. Further, state issued licenses, certifications and permits were validated. Firms that pass each Minimum Qualification shall be considered within the competitive range for further evaluation.

Phase II – Technical Evaluation: Technical proposals were evaluated in accordance with the following evaluation criteria and associated weights:

- Price 30%
- Workplan 45%
- Degree of Skills – Firm and Personnel Experience 25%

The evaluation criteria are appropriate and consistent with criteria developed for similar waste management services procurements.

The PET reconvened and determined that all proposals passed the Phase I evaluation and were within the competitive range. The proposers were therefore invited to make oral presentations on September 13, 2019. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the PET's questions.

In general, each team's presentation described the composition of the team and the roles and responsibilities of each team member; explained the proposed staffing for the North and South regions as well as the basis of work assignments at each division/facility in relation to Statement of Work requirements. Further, the teams were asked to discuss that specific type of equipment proposed to be dedicated to the contract and procedures for hauling and recycling of waste.

Summary of Firms within the Competitive Range

American Reclamation, Inc.

American Reclamation, Inc. (American Reclamation) is a full service, solid waste hauling company that specializes in waste collection, disposal, and recycling and diversion program. It also conducts on-site waste audits and establishes recycling programs for its clients. American Reclamation is a family-owned and operated business which has been in the waste hauling industry since 1945. Existing clientele include the Department of Public Works of the Cities of El Monte, Glendale, Burbank, Pasadena, Santa Monica and the unincorporated cities of the Los Angeles County, Los Angeles Unified School District, Bureau of Street Services of the City of Los Angeles, California Department of Transportation, Mt. San Antonio Community College, Montebello Unified School District.

Consolidated Disposal Services, LLC dba Republic Services

Consolidated Disposal Services, LLC dba Republic Services, Inc. (Republic) is located in Long Beach, California. It has been in business for over 50 years providing solid waste collection, recycling, and disposal services. Republic provides services to 2,700 municipalities nationwide, including 50 communities across Southern California. Customers consist of residential and commercial clients including single and multi-family unit residences, small business, healthcare facilities, retail establishments and construction sites. Republic is Metro's current provider for waste management services.

The following is a summary of the final scores:

North Region

1	FIRM	Average Score	Factor Weight	Weighted Average Score	Rank
2	AMERICAN RECLAMATION				
3	Price	100.0	30%	30.0	
4	Workplan	82.7	45%	37.2	
5	Degree of Skills – Firm and Personnel Experience	86.8	25%	21.7	
6	Total		100.00%	88.9	1
7	CONSOLIDATED DISPOSAL SERVICES, LLC DBA REPUBLIC SERVICES				
8	Price	86.7	30%	26.0	
9	Workplan	75.8	45%	34.1	
10	Degree of Skills – Firm and Personnel Experience	76.4	25%	19.1	
11	Total		100.00%	79.2	2

South Region

1	FIRM	Average Score	Factor Weight	Weighted Average Score	Rank
2	AMERICAN RECLAMATION				
3	Price	100.0	30%	30.0	
4	Workplan	82.7	45%	37.2	
5	Degree of Skills – Firm and Personnel Experience	86.8	25%	21.7	
6	Total		100.00%	88.9	1
7	CONSOLIDATED DISPOSAL SERVICES, LLC DBA REPUBLIC SERVICES				
8	Price	93.3	30%	28.0	

9	Workplan	75.8	45%	34.1	
10	Degree of Skills – Firm and Personnel Experience	76.4	25%	19.1	
11	Total		100.00%	81.2	2

C. Cost/Price Analysis

North Region

The recommended price has been determined to be fair and reasonable based upon adequate competition, an independent cost estimate (ICE), fact finding, cost analysis, and technical evaluation. The ICE is 13% lower than the recommended award amount due to new environmental laws and restrictions and current recycling marketing conditions which differed from the existing historical pricing used to develop Metro's ICE, thus resulting in a higher recommended price.

BIDDER	AMOUNT	METRO ICE	AWARD AMOUNT
American Reclamation	\$5,475,796	\$4,769,058	\$5,475,796
Consolidated Disposal Services, LLC dba Republic Services	\$6,234,293		

South Region

The recommended price has been determined to be fair and reasonable based upon adequate competition, an independent cost estimate, fact finding, cost analysis, and technical evaluation. The ICE is 20% lower than the award amount due to new environmental laws and restrictions and current recycling marketing conditions which differed from the existing historical pricing used to develop Metro's ICE, thus resulting in a higher recommended price.

BIDDER	AMOUNT	METRO ICE	AWARD AMOUNT
American Reclamation	\$4,649,889.38	\$3,640,214.67	\$4,544,022
Consolidated Disposal Services, LLC dba Republic Services	\$4,962,276.61		

D. Background on Recommended Contractor

The recommended firm, American Reclamation, Inc. (American Reclamation), is headquartered in Los Angeles, CA. It is a full-service solid waste collection and recycling company that has been providing quality service in the greater Los Angeles area for over 50 years. American Reclamation runs a fleet of CNG-powered front-loading refuse collection, roll-off and long-haul flatbed trucks. In addition, it owns and operates a 4-acre major recycling facility located near the 5 and 134 freeway interchange. The facility, which diverts over 180,000 tons from the landfill each year, includes a buy-back recycling center, receipt and processing of haul loads and construction and demolition debris, recycling of commercial sector materials and e-Waste drop-off.

American Reclamation was Metro's waste collection and recycling provider during July 2002 through February 2013, and their performance was satisfactory.

DEOD SUMMARY

**WASTE MANAGEMENT SERVICES/
OP1484230003367 AND OP1484240003367**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 7% Small Business Enterprise (SBE) goal and 3% Disabled Veteran Business Enterprise (DVBE) goal for each region in this solicitation. American Reclamation, Inc. made a 7% SBE and 3% DVBE commitment for each region.

Small Business Goal	7% SBE 3% DVBE	Small Business Commitment	7% SBE 3% DVBE
----------------------------	-------------------	----------------------------------	-------------------

A1. North Region: American Reclamation, Inc. (Prime)

SBE Subcontractors		% Committed
1.	Urban Graffiti Enterprise, Inc.	7%
Total Commitment		7%

DVBE Subcontractors		% Committed
1.	Sam Scully Staffing DBE Indigo Staffing	3%
Total Commitment		3%

Small Business Goal	7% SBE 3% DVBE	Small Business Commitment	7% SBE 3% DVBE
----------------------------	-------------------	----------------------------------	-------------------

A2. South Region: American Reclamation, Inc. (Prime)

SBE Subcontractors		% Committed
1.	Urban Graffiti Enterprise, Inc.	7%
Total Commitment		7%

DVBE Subcontractors		% Committed
1.	Sam Scully Staffing DBE Indigo Staffing	3%
Total Commitment		3%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable on this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2020-0212, **File Type:** Informational Report

Agenda Number: 20.

CONSTRUCTION COMMITTEE MAY 21, 2020

SUBJECT: 2020 LOS ANGELES CONSTRUCTION MARKET ANALYSIS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the 2020 Los Angeles Construction Market Analysis report.

ISSUE

To better understand the factors influencing construction bid prices and Metro's ability to deliver the largest transportation construction program in the country, a construction market analysis was performed in 2018 following the passage of Measure M. A 2020 study has now been conducted to update the construction market analysis to today's current conditions and to identify factors influencing bid prices, labor availability and develop mitigation strategies. Current and future market conditions were assessed to determine factors influencing construction bidding activities and our ability to deliver Metro's capital program, including projects approved as part of Measure M. Since the Construction Market Analysis was finalized in March 2020, we have prepared an addendum (see Attachment B) that assesses the impacts of COVID-19.

BACKGROUND

The 2020 Los Angeles Construction Market Analysis report is a comprehensive analysis of construction market factors and trends since the last report that was completed and presented to the Board in 2018. The Construction Market Analysis objectives were to gather information to evaluate the global, national, regional, and local economy as it relates to construction cost and bidding trends, the current and future amount of construction activities in the region and measure its impact on the proposed work in the region, and the macroeconomic employment trends and skilled labor availability.

DISCUSSION

The desired outcome of the 2020 Los Angeles Construction Market Analysis report is to continue our understanding of the factors influencing construction costs in the Los Angeles market, develop pricing projections for future forecasts, and determine potential solutions to mitigate rising bid prices to better

ensure our ability to deliver Measure M and other capital projects within existing project budgets.

KKCS/Triunity Joint Venture performed the Los Angeles Construction Market Analysis update and completed the report in March 2020. The report discusses factors that would influence future construction bid prices at Metro and how they would impact our ability to deliver Metro's capital program on-time and within budget.

- Current market indicators in the construction industry forecast a construction labor shortage, low unemployment, and large volume of on-going and planned work in the region.
- Inflation projections show a rise in construction costs. The budget development for multiyear projects must adequately account for escalation, increasing wages, materials, and rising margins.
- The number, size, and complexity of mega projects are increasing resulting in reduced competition and higher bids.
- As market demand increases, contractors will be increasingly selective in deciding which projects to pursue, dependent on the owner, and the amount of risk an owner places on the contractor.
- Metro and other agencies will compete for qualified contractors, subcontractors, and skilled workers in the robust construction marketplace.

Report Recommendations

The 2020 Los Angeles Construction Market Analysis report includes the following recommendations:

- Develop innovative way to create housing for construction workers that can be converted into affordable housing as part of Metro's Transit-Oriented Communities program or to house unemployed persons with capability for job retraining.
- Leverage technology to train and attract new job candidates to improve productivity, maintain schedule, and improve the labor pool.
- Consider different incentivizing strategies for contractors meeting certain diversity goals.
- Reduce the time and cost to propose on Metro projects and standardize contract templates to lessen the burden on bidders.
- Incorporate modular construction design to relieve local labor pool constraints and streamline schedule.
- Consider phased implementation of projects to lower the risks associated with megaprojects.
- Identify potential third-party project synergies for shared costs opportunities.
- Maintain an aggressive posture to attract limited available resources, including onboarding qualified candidates before the actual need arises.

FINANCIAL IMPACT

There is currently no impact to the budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal #1 to expand the transportation network as responsibly and quickly as possible, and by targeting infrastructure and services investments towards those with the greatest mobility needs.

NEXT STEPS

Metro staff will evaluate each of the recommendations and implement, if appropriate. Staff will also continue to develop strategies on how to best address the factors impacting Metro's ability to successfully deliver projects on-time and within budget.

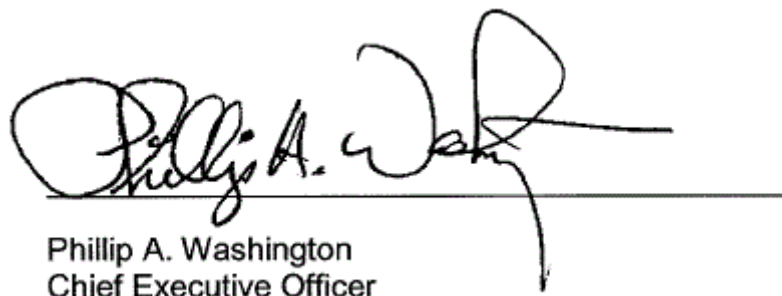
ATTACHMENTS

Attachment A - 2020 Metro Construction Market Analysis

Attachment B - Metro Construction Market Analysis Addendum, COVID 19

Prepared by: Brian Boudreau, Sr. Executive Officer, (213) 922-2474

Reviewed by: Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer



2020 UPDATE

LOS ANGELES CONSTRUCTION MARKET ANALYSIS

March 2020

Prepared by



Metro



KKCS/TRIUNITY JV



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Executive Summary

Delivering Metro Projects for the Next 10 Years

With many major capital projects in construction, and more in the next few years, Metro is on track to achieve ambitious goals. In addition to routinely reviewing project status, Metro uses the Construction Market Analysis as a tool to gauge progress, assess current and future market conditions, and adjust strategies for attaining its 10-year goals.

The economy has been growing at all levels, and robust national and regional capital programs compete for limited resources putting a strain on the construction industry. In response, innovative approaches to construction delivery coupled with ongoing implementation of best management practices present opportunities for Metro to remain competitive in this challenging market. This report focuses on how these conditions will impact delivery of Metro's projects and influence contractor bids.

Market analysis findings have been incorporated into a strategic assessment of Metro's strengths, weaknesses, opportunities, and threats (SWOT) with associated recommendations. These findings and recommendations accent Metro's ability to plan around market challenges:

- Volatile commodity pricing
- High demand for resources, along with increased competitive bidding from more contractors
- Completing projects within schedule and budget baselines.

Key Indicator:

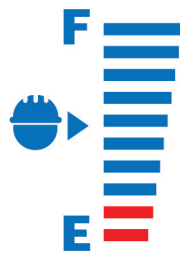
Los Angeles tied Seattle for the most construction cranes in the US in 2019.

Economic Conditions

Overall, the US economy in 2019 maintained steady momentum, while both California and Los Angeles growth outpaced the rest of the country. Major economic events that impacted the construction industry included the US trade treaty with Canada and Mexico, on-going trade negotiations with China, California's \$1.8 billion subsidies and expanded tax credits to address the housing shortage, and recovery efforts from natural disasters across California. While normal economic cycles assume a "correction" or recession will eventually transpire, the economy in the short term is poised to continue positive employment and growth trends.



75%
of contractors
expect to
add workers
in 2020



81%
of firms having
difficulty filling
hourly craft or
salaried positions

State of the Construction Industry

Transportation construction expenditures increased by 8% in 2019 for a total of \$73.1 billion nationwide. This level of expenditure is forecast to grow approximately 5% in 2020 largely because of increased funding from all levels of government.

Unemployment in the construction industry is exceptionally low at 3.6%, and the number of construction job openings are at the highest levels since 2000. An Associated General Contractors of America survey found that 75% of contractors expect to add workers in 2020 and 81% of firms indicated difficulty filling positions.

A “perfect storm” of conditions is occurring in the Los Angeles region’s construction industry:

- Shortage of skilled construction labor
- Low unemployment
- Large amount of ongoing and planned work

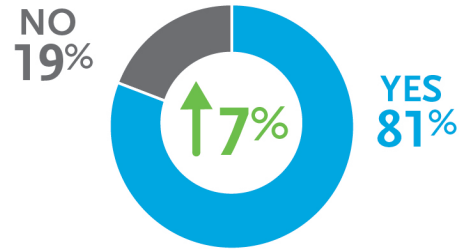
Market corrections have normalized the cost of commodities and materials after a spike a year ago during potential trade tariff tensions. However, cost escalations appear likely to continue for several more years.

The COVID-19 coronavirus is creating a global economic impact that may hurt supply chains for the construction industry. However, is too early to tell the significance and duration of what economic impact may result from the coronavirus.

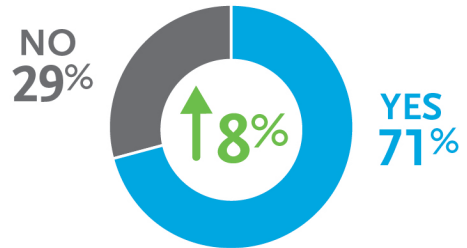
Contractor Response to Skilled Labor Shortage

Average annual change since 2018

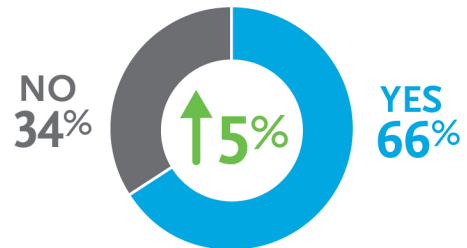
ASKING SKILLED WORKERS TO DO MORE WORK



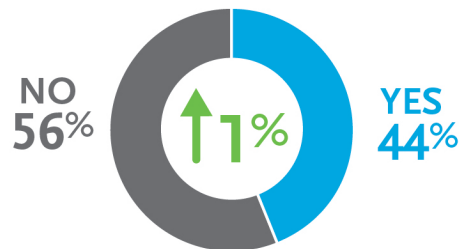
CHALLENGES TO MEET SCHEDULES



SUBMITTING HIGHER BIDS



TURNING DOWN WORK PROJECTS



Emerging Trends Challenge “Business as Usual”

Although increasing demands on the construction industry are causing a labor shortage and higher prices, they are also changing how owners and contractors approach the marketplace. These emerging trends challenge “business as usual.”

- Megaprojects are growing not only in number, but in scale and complexity. The average size of a megaproject is expected to increase 37% from \$2.1 billion to \$2.9 billion between 2019 and 2023, making projects that have historically been difficult to control cost and schedule even more challenging.
- Contractors are more selective when bidding work, gravitating toward “owners of choice” while steering away from fixed-price contracts and their associated risks.
- Contractors are weighing the risks and rewards of the P3 market; some are moving away, while others are embracing the innovative alternative delivery method.
- Alternative delivery methodologies such as Construction Manager/General Contractor and Progressive Design Build, are gaining traction to attract bidders to a more “risk friendly” contracting environment.

Metro’s Response to Shifting Construction Market Conditions

Three intended outcomes have shaped Metro’s strategy for adapting to evolving market conditions: (1) increase the labor pool, (2) be the owner of choice, and (3) create a stronger, more resilient organization. They resulted in a broad array of actions.

Increase the Labor Pool

Metro recognizes the need to build and train a diverse, inspired, and high-performing workforce. It has made significant strides toward developing a larger labor pool and embarked on bold strategies to develop the next workforce generation.

The percentage of women in construction has not changed for years, despite several initiatives to address this issue. Metro is paving the way for women to enter the construction workforce through several initiatives:

- WIN-LA
- SEED Transportation School
- E3 Youth Initiative
- Female Construction Scorecard
- Women Build Metro LA

Be the Owner of Choice

Metro remains focused on adapting to changing market conditions to attract more bidders to drive innovation and to support competition in the private sector.

- Reducing risk associated with firm-fixed-price contracting in favor of alternative deliveries, where appropriate
- Conducting contractor outreach to attract more bidders, such as industry forums and market soundings
- Scaling projects to increase competition and create more bidding opportunities for smaller contractors.

Megaprojects: Increasing in Number, Size, and Complexity



473

MEGAPROJECTS
PLANNED IN U.S. FOR
NEXT 4 YEARS (TO 2023)



40%

OF NATIONAL TOTAL FOR
PLANNED MEGAPROJECTS
ARE IN CALIFORNIA, TEXAS,
AND NEW YORK



37%

INCREASED AVERAGE
SIZE EXPECTED FROM
\$2.1 B TO \$2.9 B



90%

OF MEGAPROJECTS IN
THE US EXPERIENCE
SCHEDULE DELAYS
AND COST OVERRUNS



12

METRO MEGAPROJECTS (> \$1B)
TOTALING \$35B ARE UNDER
CONSTRUCTION OR PLANNED
IN NEXT 10 YEARS

Create a Stronger, More Resilient Organization

Metro is implementing the largest transportation expansion program in the country during a time of booming construction activity in Southern California. Consequently, Metro has started to implement critical steps to plan and build projects more cost effectively and with less risk using these actions:

- Applying recent lessons learned to overcome the cost and schedule challenges historically associated with megaprojects
- Greater collaboration among Metro departments to better manage scope and costs
- Risk management and contingency planning that accounts for current and trending macroeconomic conditions

External Factors Influencing Metro

While Metro continues to respond to shifting market conditions, external factors largely beyond Metro’s control remain. However, strategies can and are being developed to optimize beneficial external factors and minimize detrimental external factors.

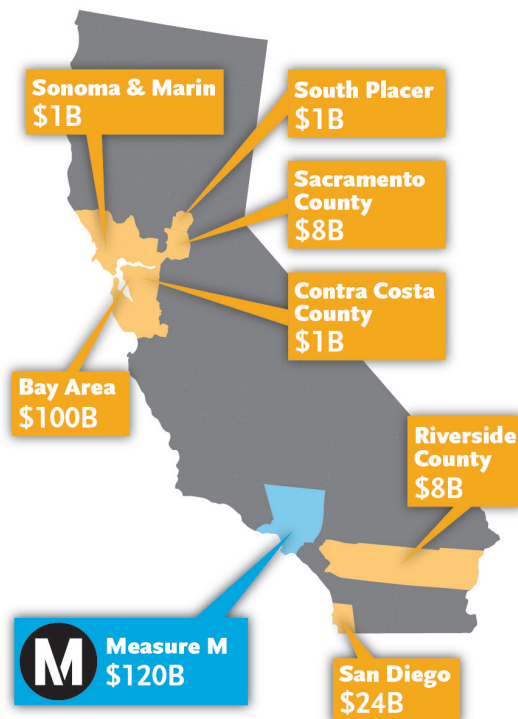
Beneficial External Factors

- An economic downturn may ease the construction market demand, creating greater availability in the workforce and more competition on Metro procurements.
- The fate of the next federal surface transportation bill creates uncertainty because federally funded projects may be delayed, and contractors would look to Metro for locally funded work.

- The changing regulatory setting that is focusing on fewer government-initiated obstacles may shave years off project delivery.

Detrimental External Factors

- The labor need is so significant that it is essential to bring in qualified workers outside Southern California. But the high cost of living poses a major hurdle for contractors trying to hire qualified workers from outside the region.
- Lengthy third-party jurisdictional and utility processes and approvals are contributing to additional cost and schedule pressures.
- With multiple billion-dollar-plus capital programs in the region, Metro is competes with other local agency programs for the same limited resources. This may be compounded as ballot measures rivaling Measure M and could divert resources from Metro are considered.



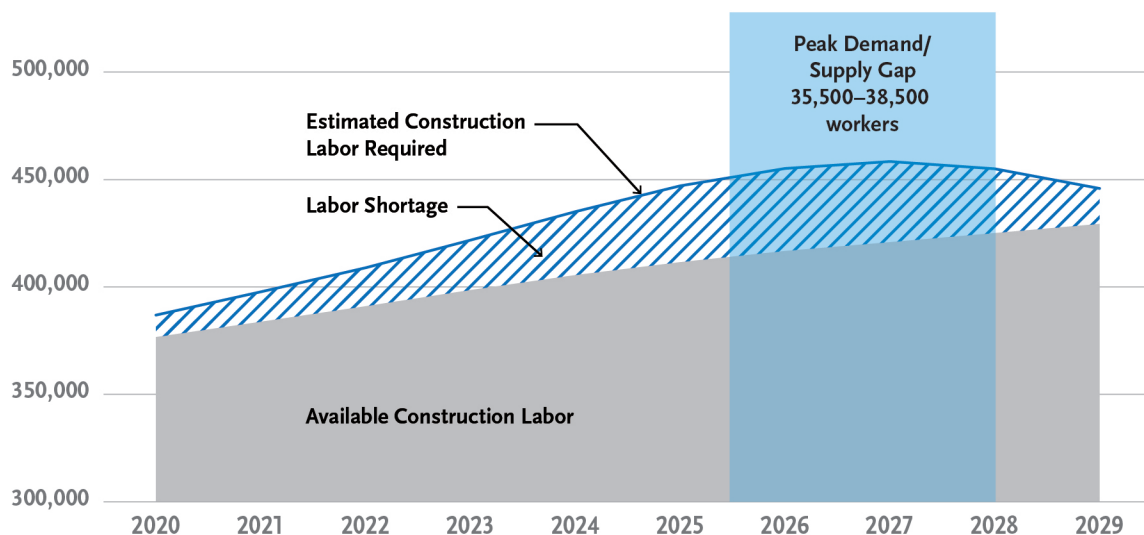
Future Construction Labor Needs and Availability

To forecast the future construction jobs needed in the Los Angeles region, construction expenditures were projected for Metro, local public work agencies, and private development. These projections included some significant findings:

- Over the next 10 years, Metro construction expenditure will average nearly \$2.9 billion per year with expenditures peaking in 2025 to 2027.
- Local public work agencies are anticipated to spend \$9.5 billion per year on construction driven by major programs such as Measure W, Metrolink’s SCORE Program, and Los Angeles World Airports.
- The construction industry is anticipated to sustain substantial growth and need for construction labor during preparation for the 2028 Olympic Games in Los Angeles related to significant investments in infrastructure and private development.

Using the construction expenditure budgets and data from Dodge, the Bureau of Labor Statistics, and Los Angeles Economic Development Corporation, an economic model forecasted the number of construction jobs. Model results indicate a significant and prolonged construction labor shortage if all planned and unplanned (and currently unknown) construction projects were to occur simultaneously. The labor shortage gap between the estimated construction labor needed and available labor is increasing. The peak of the labor shortage is anticipated between 2026 and 2028, resulting in a shortage of approximately 35,500 to 38,500 people to fill construction jobs.

ESTIMATED CONSTRUCTION LABOR PROJECTIONS BETWEEN 2020-2029

















SWOT Assessment and Recommendations

SWOT assessments help identify how an organization can enhance areas of strength, boost areas of weakness, leverage potential opportunities, and minimize threats. This report assessed national and regional economic conditions, the state of the construction industry, emerging trends in the market, Metro’s previous actions, and external factors. Assessment results provide a basis for Metro to prepare its strategy for the next decade of construction demand, which will likely exceed supply and will increase costs for labor and materials.

The predecessor study to this Construction Market Analysis was prepared in early 2018. The 2018 report provided recommendations that have been implemented by Metro or are being developed.

Building on the strengths identified in the SWOT assessment, implementation of the previous report’s recommendations, and Metro’s recent initiatives and policies, this current study provides additional recommendations designed to increase the number of bidders, increase the availability of craft and management resources, and continue building Metro as an “owner of choice.” Detailed descriptions of the recommendations are provided in Chapter 6 of the report.

RECOMMENDATIONS AND BENEFITS SUPPORTING METRO OUTCOMES						
Actions and Outcomes	Benefits					
Recommended Actions Supporting Outcomes	 Address Labor Shortage	 Reduce Cost	 Minimize Risk	 Attract Bidders	 Manage Schedule	 Response
Increase the Labor Pool						
1. Innovate worker housing	✓			✓	✓	
2. Leverage technology	✓	✓			✓	
Be the Owner of Choice						
3. Incentivize diversity	✓			✓		
4. Reduce bidder burden		✓		✓	✓	
5. Incorporate modular design	✓	✓		✓	✓	
Create a Stronger and More Resilient Organization						
6. Phased implementation		✓	✓	✓	✓	
7. Shared cost	✓	✓	✓		✓	
8. Recruit talent	✓	✓	✓		✓	



01

Delivering Projects for the Next 10 Years

Measures R and M capital programs delivery is well underway. Staying on track to achieve ambitious goals by 2030, the Los Angeles County Metropolitan Transportation Authority (Metro) gauges progress by routinely reviewing project status, assessing current and forecasting future construction market conditions, and adjusting strategies for attaining its 10-year goals.

Serving as a barometer for today's and tomorrow's construction market, this updated Los Angeles Construction Market Analysis is an important tool for gauging near- and long-term conditions in the Los Angeles region that may affect Metro's ability to sustain progress toward improving transportation infrastructure in Los Angeles County.

Market conditions and resource availability are dynamic year to year, but industry followers provide key data indicators and trends to inform Metro's delivery approach:

- What has changed since the previous market analysis in 2018?
- Do construction market conditions continue to tighten? Will resources be available to support Metro's capital program?
- Is Metro positioned for success, or should it refine delivery strategies to be the owner of choice in the region?

Building on the 2018 Los Angeles Construction Market Analysis, this 2020 report reviews key indicators to keep Metro on track:

- Performs a market analysis showing the current and projected construction activity in the Los Angeles region
- Analyzes the qualified contractor and skilled labor availability in the region, including employment trends in the construction industry
- Provides recommendations for how Metro can be the owner of choice to attract construction contractors in the region when compared with other successful transit agencies

What is Driving Metro's Construction Needs?

In November 2016, Los Angeles County voters approved Measure M, a half-cent sales tax to improve transportation infrastructure in Los Angeles County. Measure M is expected to generate \$120 billion in revenue over 40 years and create a continuous source of funding for transportation in Los Angeles County. This influx of funding will be allocated to a comprehensive capital program portfolio that ranges from "state of good repair" improvements, such as the recently renovated Blue Line, to large-scale megaprojects like the Sepulveda Transit Corridor.

The overall Measure M budget for the first 40 years focuses on the capital project delivery of major transit and highway projects, which includes \$41.8 billion in transit construction, \$20.3 billion in highway construction, and \$2.4 billion in state of good repair refurbishments and improvements. According to the Los Angeles Economic Development Corporation's the 2016 economic forecast, Measure M will add 465,900 new jobs and stimulate \$79.3 billion in economic output in the region.

Current economic conditions at the national and global level have also changed since the 2018 Los Angeles Construction Market Analysis:

- The national economy continues to grow, but at a slower pace, with consumer and business confidence generally high and with low unemployment.
- Trade policies including new tariffs, along with low unemployment and a robust economy, may fuel higher inflation.

Measure M allocation of
\$120 billion in revenue



\$41.8 B

NEW TRANSIT
CONSTRUCTION INCLUDING
100 MILES FOR METRO RAIL
AND 65 MILES OF BRT



\$20.3 B

HIGHWAY IMPROVEMENTS,
CARPOOL LANES AND
GOODS MOVEMENTS



\$20.3 B

LOCAL CITY
TRANSPORTATION
IMPROVEMENTS



\$2.4 B

STATE OF GOOD
REPAIR PROGRAM



\$2.4 B

ACTIVE
TRANSPORTATION
PROJECTS



METROLINK®

\$1.2 B

METROLINK
PROJECTS

The impact of these concerns may result in consequences to the construction industry due to increases to material costs, labor shortages, and demand for construction.

Identifying Critical Strategies to Achieve Measure M Goals

Metro must analyze the challenges of delivering Measure M in the current economic climate to better understand the impacts of a growing economy at all levels, shifting approaches to construction delivery, and competing capital programs and projects. This report illuminates current and projected future construction market conditions that will impact contractor delivery on Metro's current projects, and influence contractor bids on Metro's upcoming projects.

This construction market analysis update for 2020 has the following primary objectives:

- Provide economic analysis at all levels related to the construction market industry
- Evaluate employment trends and skilled labor availability
- Identify the current and projected construction activity in the Los Angeles region for the period from 2020 to 2030
- Identify factors impacting current Metro projects and influencing future bids on upcoming Metro projects

Analyses aimed at these objectives will reveal current and future indicators of construction market conditions. These updated results will help guide Metro's approach to construction contracting, enhance Metro's ability to compete for resources, and increase competitive bidding from more contractors.

The Metro Vision 2028 Strategic Plan serves as the foundation that aligns all Metro's plans, programs, and services to achieve a common vision. This construction market analysis supports Goal 5 (Provide responsive, accountable, and trustworthy governance within the Metro organization) by aligning this market analysis report's recommended actions under Metro Vision 2028 Strategic Plan Goal 5.

Market Intelligence Sources Supporting this Assessment

Metro asked the KKCS/Triunity JV (KTJV) team to perform an extensive literature review and research statistical data and public records to develop a picture of the current and future construction market, employment, and availability of construction labor and trade resources.

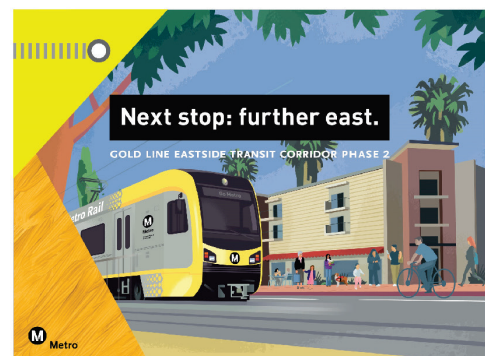
The assessment compared Metro's capital program with other local agency programs to identify similarities or differences in several areas, such as amount of work, SBE/DBE participation, bid estimates versus engineers estimate, and number of bidders.

Measure M's portfolio of projects helped win the award of the 2028 Summer Olympic and Paralympic Games to Los Angeles because of its goals to improve mobility options and enhance transportation infrastructure in Los Angeles County. Now, Measure M and the 2028 Olympic Games position Metro to not only prepare for hosting a global event, but to accelerate delivery of public benefits to Angelenos even earlier than originally envisioned, especially for its four pillar projects.

The Journey Ahead: Market Drivers Threaten Major Capital Programs

When Measure M passed, Los Angeles was in a building boom, and construction continues to be robust across all sectors in Los Angeles. Now, more than 52 building projects are under construction and another 120 are planned in downtown Los Angeles, along with several multi-billion-dollar sports and cultural facilities, and extensive improvements at Los Angeles International Airport (LAX). Delivery is also shifting toward more alternative delivery, such as public-private partnerships (P3), as a method to accelerate projects.

Metro Is Focused on Accelerating Funding and Delivering Four Pillar Projects



These industry and public resources provided the most current, relevant data available for this construction market analysis:

- Federal economic indicators, including US Bureau of Economic Analysis, US Bureau of Labor Statistics, Census Bureau, and the US Department of Commerce
- American Road and Transportation Builders Association (ARTBA)
- Associated Builders and Contractors (ABC)
- Associated General Contractors of America (AGC), including an interview with AGC's Chief Economist, Ken Simonson
- Engineering News-Record (ENR)
- Business and trade journals
- Dodge Data and Analytics (Dodge)
- Los Angeles Economy Development Corporation (LAEDC)
- University of California, Los Angeles (UCLA) Anderson School of Management
- US Chamber of Commerce
- Agency websites and bid data

The economic market forecast is based on federal, state, and local data and market intelligence that was gathered and used in the economic modeling and development of the forecast.

Considerations Framing this Assessment

The current extremely dynamic market will require Metro to closely monitor trends and adjust strategies to achieve not only its 2028 goals for its four pillars projects, but also its fundamental levels of service in the communities it serves. The earlier 2018 Los Angeles Construction Market Analysis closely examined and modeled current economic conditions for the first time. This 2020 update will help Metro stay informed and proactively adjust strategies in a dynamic market where economic projections are more short-lived than ever. The following discussion steps through these topics:

- Delivering projects for the next 10 years
- Construction market conditions today and tomorrow
- Metro's response to shifting market conditions
- External factors influencing Metro
- Future construction market projection
- Strengths, weaknesses, opportunities, and threats (SWOT) assessment with recommendations



02

Construction Market Conditions Today and Tomorrow

The economy is cooling from the historic pace of 2019, which marked the longest economic expansion in US history. California surpassed national performance and is forecast to continue outpacing the rest of the country. Los Angeles' income growth, however, is expected to lag California's in 2020.

Economic Conditions Cooling from Historic Pace

Overall, the US economy in 2019 maintained steady momentum, but it was outpaced by California's and Los Angeles' growth. Although a recession will eventually hit as a part of the normal economic cycle the short-term economy is poised to continue positive trends in unemployment and growth.

National

In 2019, the US economy broke several records: longest economic expansion in US history, lowest unemployment rate since 1969, and longest stretch of monthly job gains. This contributed to the 2.3% growth rate of the US Gross Domestic Product (GDP) in 2019.

This sustained growth rate provides for balanced jobs growth while preventing inflation and volatility. The stock market was strong in 2019, including recovery from market corrections in 2018. Another positive signal was the strong pace at which consumer spending rose throughout 2019, supported by solid job growth and wage increases. The passage of the United States-Mexico-Canada Agreement (USMCA) also served to reduce market uncertainty and increase optimism.

After a series of interest rate hikes, the Federal Reserve cut interest rates to support continued economic expansion. Historically, however, such action is taken only when evidence of pending economic hardship is seen.

As a new decade begins, the US economy is likely to experience continued growth but at a slower pace, and likely to avoid a recession in 2020. The Federal Reserve is projecting the GDP to hover at or below 2% between 2020 and 2022ⁱⁱ. The unemployment rate is projected to

remain below 4%, according to the Federal Reserve, and inflation is likely to rise in 2020 and beyond. (Note that some industry experts believe the low unemployment rate may be misleading because many workers are part-time in low-paying industries and would prefer full-time work in higher-paying jobs.)

However, uncertainty at the global stage will continue to be the economy's biggest risk:
















- Trade tensions with China resulting in tariff increases
- A slowing Chinese economy that may cause a sluggish global economy
- Uncertainty until the 2020 election cycle ends
- Federal monetary policy with unpredictable interest rate changes.
- The corona virus' affect on manufacture and imports of construction-related goods and materials
- Slowing population growth generally reducing the labor pool in the long term

This uncertainty and recent events may result in lower growth, tighter financial conditions, lower asset prices, and weakened labor markets.

California

As the fifth-largest economy in the world, California's GDP is expected to grow roughly in line with the national average. According to the University of California, Los Angeles (UCLA) Anderson Forecast, California will continue to outpace the rest of the country in job growth, and real personal income. However, California's unemployment rate will likely remain higher, and home building production will likely be lower than what the rest of the country experiences.

Key Economic Indicators and Drivers since 2018

National	KEY INDICATORS	KEY DRIVERS
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>GDP ↑ \$21.7 T</p> </div> <div style="text-align: center;">  <p>CPI ↑ 256</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>UNEMPLOYMENT ↓ 3.7%</p> </div> <div style="text-align: center;">  <p>INFLATION ↓ 1.8%</p> </div> </div>	<ul style="list-style-type: none"> • 2019 US population growth was slowest in 100 years • Federal Reserve cut interest rates and a trade treaty between US, Canada, and Mexico was approved
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>GDP ↑ \$3.1 T</p> </div> <div style="text-align: center;">  <p>CPI ↑ 281</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>UNEMPLOYMENT ↓ 4.1%</p> </div> <div style="text-align: center;">  <p>INFLATION ↓ 3.0%</p> </div> </div>	<ul style="list-style-type: none"> • \$1.8 billion state investment to address the housing crisis • 3 CA metro areas in top 10 of most construction jobs added in 2019
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>GDP ↑ \$0.8 T</p> </div> <div style="text-align: center;">  <p>CPI ↑ 274</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>UNEMPLOYMENT ↓ 4.5%</p> </div> <div style="text-align: center;">  <p>INFLATION ↓ 3.1%</p> </div> </div>	<ul style="list-style-type: none"> • Highest ratio of housing prices to household income in the country • Currently tied with Seattle for most cranes in the nation

Indicators shown are the actual values as of February 2020.
Arrows represent the direction of change in the indicator from 2018.

The State of California (State) approved its largest budget in history with increased spending on schools, homelessness, and health care, while still adding billions to the State's reserves funds. The State budget allocated \$1.8 billion for subsidies and expanded tax credits to spur new housing production, along with incentives for cities to approve new home constructionⁱⁱⁱ. After the defeat of Proposition 6 in November 2018 (intended to reverse the SB-1 legislature-approved gas tax for infrastructure spending), SB-1 has gone into full effect. The 12-cent-per-gallon SB-1 gas tax has increased Caltrans' budget to \$14.6 billion, up from \$9.5 billion 3 years ago, and will support a \$52.0 billion program to repair and maintain the state's highways and bridges as well as invest in public transportation.

Risks to California's economy include the high cost of housing and the ability to attract and keep skilled workers, and slowing population growth. The increased frequency of natural disasters throughout the state will further constrain the construction market as destroyed structures and infrastructure are rebuilt.

California has both the highest number and largest value of projects in the country. With over 1,300 construction projects, California accounts for nearly 15% of all the construction spending in the country^{iv}. Major projects being undertaken in the state include LAX's Landside Access Modernization Program (LAMP), California High-Speed Rail, and the Virgin Trains' Xpress West from Los Angeles to Las Vegas.

Los Angeles

Real income gains are emblematic of the trends taking place across the state, however income growth in Los Angeles is expected to lag behind the state in 2020 due to Los Angeles' relatively higher unemployment rate and greater degree of labor market slack. Robust employment increases in service sectors such as health care and business will create an additional 60,000 jobs per year, continuing the long-term decrease in unemployment rate and Los Angeles County's projected unemployment rate of 4.3% in 2020.

Despite the county's projected GDP growth, which roughly paces the statewide economy and national growth, housing shortages pose a threat to continued growth. Approximately 21,000 new unit permits are forecasted in 2020 in Los Angeles County, an upward trend that must continue if home prices are to decline to more attainable levels. Consequently, housing construction will continue to rise to make up the affordable housing gap that has widened over years of suppressed development.

Los Angeles County has also seen a major shift. A wave of technology companies has taken root along the coast, spanning from Santa Monica to Los Angeles International Airport (LAX), creating "Silicon Beach." Now considered the technology capital of Southern California, Silicon Beach is bringing employment opportunities and an influx of new residents. As this new tech hub expands and attracts more entrepreneurs and investors to the region, housing prices will continue rising along the coast and push residents farther inland toward more affordable housing, but longer commute times.

The Construction Industry is Booming

Voters are passing transportation funding measures across the nation resulting in 5% projected growth in 2020, optimistic contractors, and labor shortages.

Construction Spending Continues Rising

With annual national spending of approximately \$1.3 trillion last year, the construction industry is a major contributor to the US economy. It accounts for 4.1% of the national GDP and employs 5.3% of the country’s total workforce.

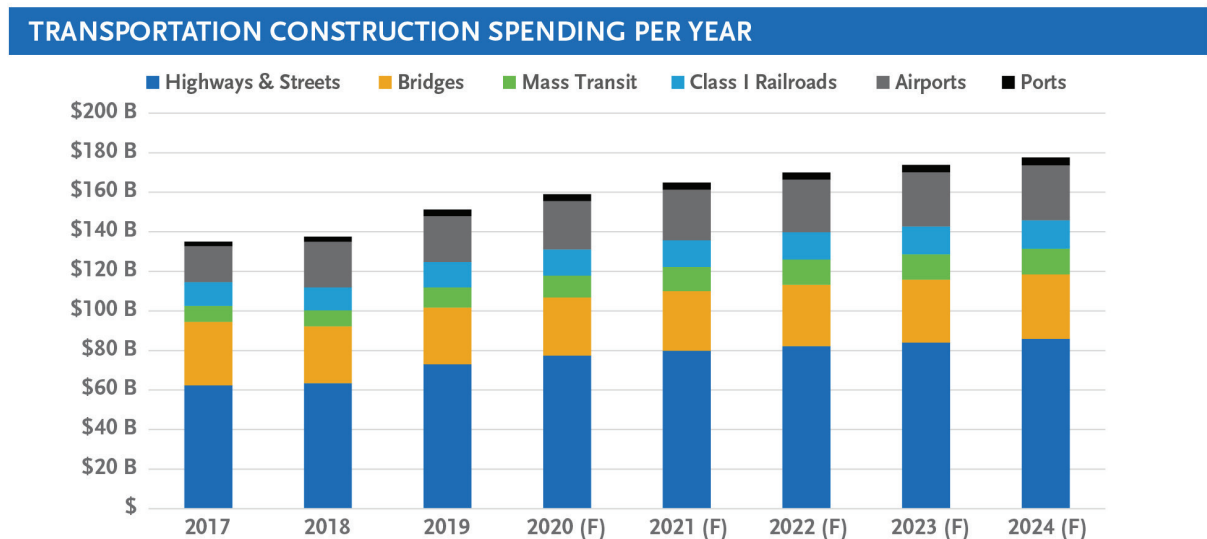
Transportation construction expenditures increased 8.0% in 2019, with significant gains in highway, street, and pavement work, which grew by \$9.6 billion for a total of \$73.1 billion nationwide. Several rail transit megaprojects also broke ground.

Four more states raised gas taxes in 2019 to support transportation investment, bringing the total number such states to 31. Nearly 90% of

the 305 state or local transportation measures on the ballot in November 2019 were approved, resulting in additional \$9.6 billion in potential construction spending on projects in the next few years.

According to the American Road and Transportation Builders Association (ARTBA) 2020 Market Forecast, the US transportation infrastructure market is expected to grow 5% in 2020 with increased funding from all levels of government. This accounts for public investment in highways, bridges, public transit, rail, ports and waterways, and airport runways and terminals, as well as related transportation infrastructure for residential and commercial development.

Potential delays in the reauthorization of the Fixing America’s Surface Transportation (FAST) Act and Congress ability to find additional revenues to support the Highway Trust Fund both pose a risk to the transportation construction market. If states delay projects over concerns about whether the next federal surface transportation bill is completed in a timely manner, this could temper 2020 market growth.



Note: (F) ARTBA's forecast of construction spending for future years.

Exceptionally Low Unemployment in the Construction Industry

Despite some concerns of the overall economy slowing, most construction firms expect demand for their services to expand in 2020. Contractors plan to add staff to ensure a sufficient workforce to keep pace with growing demand^{vi}. On a year-over-year basis, construction employment has expanded 3.1% nationally in 2019, and California alone is projected to add 29,400 construction jobs in 2020.

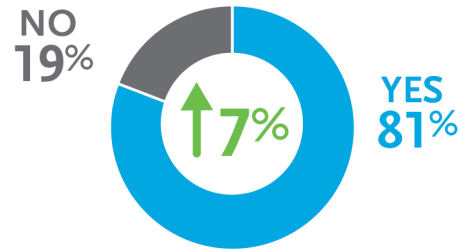
Although construction job openings in recent months have been at the highest level since 2000, the number of unemployed skilled workers available to fill these openings has fallen. The national annual unemployment rate has fallen to a low of 3.7%, and the construction annual unemployment rate has also fallen, down to 4.5% in 2019. Although good for individuals, the low unemployment rate has created labor shortages in industries, especially construction. Associated General Contractors released a survey that found 75% of contractors expect to add workers in 2020, but 81% of firms indicated difficulty filling hourly craft or salaried positions and do not foresee improvement in the near future^{vii}.

The construction industry continues to increase employment, including a 3.4% increase in California on a year-over-year basis as of November 2019^{viii}. However, labor shortages threaten to undermine the growth of the construction industry. Staffing challenges as a result of labor shortages are increasing construction costs and delaying project schedules—projects take longer and bids also become more expensive. Workforce shortages that make construction projects more costly and slower to build increase the risk of undermining broader economic growth by making development projects—including infrastructure—more expensive and time-consuming.

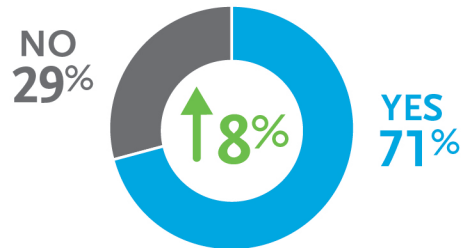
Contractor Response to Skilled Labor Shortage

Average annual change since 2018

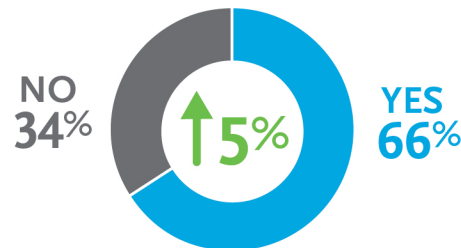
ASKING SKILLED WORKERS TO DO MORE WORK



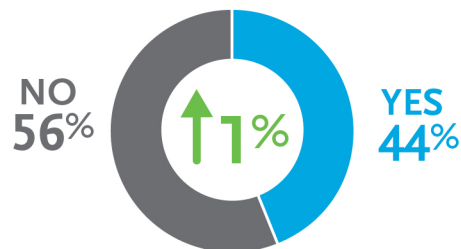
CHALLENGES TO MEET SCHEDULES



SUBMITTING HIGHER BIDS

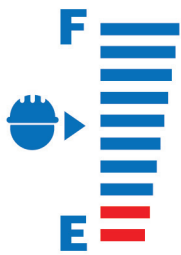


TURNING DOWN WORK PROJECTS





75%
of contractors
expect to
add workers
in 2020



81%
of firms having
difficulty filling
hourly craft or
salaried positions

The Los Angeles construction market is experiencing “perfect storm” conditions driven by a skilled-labor shortage, low unemployment, and large amount of ongoing and planned work in the region. Construction employment in Los Angeles County has increased significantly by over 7% the past year, resulting in 10,700 jobs. The construction industry’s recent growth in Los Angeles has been driven up primarily by transportation infrastructure and by private-sector redevelopment investment in response to increased demand for housing and office space. More information regarding the number of construction jobs needed over the next 10 years in Los Angeles is presented in Chapter 5.

The Los Angeles construction market is experiencing “perfect storm” conditions driven by a skilled-labor shortage, low unemployment, and large amount of ongoing and planned work.

Normalization of Construction Materials/Costs

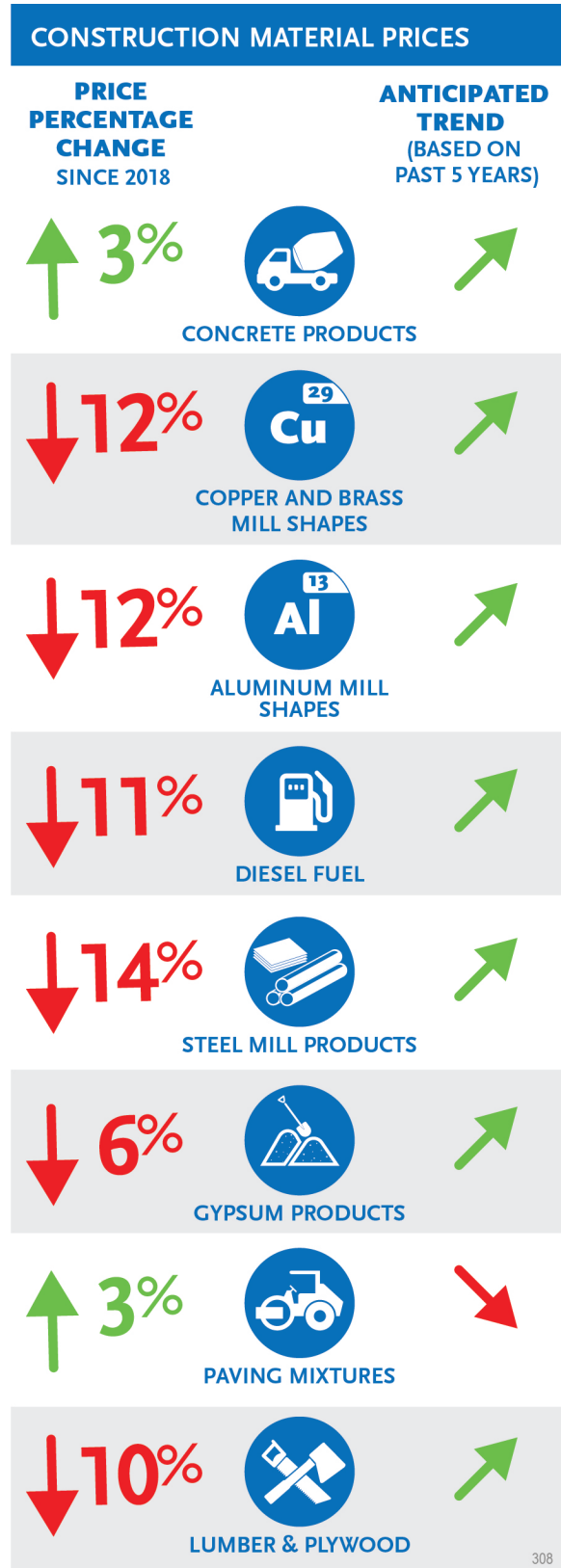
Each month, the US Department of Bureau of Labor Statistics (BLS) surveys the prices that goods producers charge for items used in construction. The Producer Price Index (PPI) is a measure of the average change over time in the prices paid by contractors for construction materials. These prices are expressed as index numbers rather than dollars, and how much these numbers change over time is significant.

One of the contributing factors putting pressure on construction costs includes materials costs, which are rising at the fastest rates in several years driven in part by recent tariffs on construction materials including lumber, steel, and aluminum. As of the beginning of 2019, material prices have cooled off according to ENR and BLS statistics^{ix}. This is in part due to a market correction resulting from lower than expected construction starts in the US housing market and tariffs that are now lifted. However, the US could potentially see new tariffs introduced or removed anytime, making the cost of construction materials volatile and uncertain. The unpredictability and continually changing trade negotiations and agreements over the past year has resulted in suppliers decreasing the window of time that quotes remain valid.

AGC reviewed specific construction items and how prices have normalized within a few months following the trade agreement between the US, Canada, and Mexico. Material costs are also expected to continue to escalate, but at a slower pace than labor costs.

Per the BLS October 2019 News Release, the PPI final demand index rose 1.1% for the 12 months ending in October, the lowest rate of increase since advancing to 1.1% in October 2016 ^x. The 20-city average also showed a fall-off with prices decreasing 3.1% for the year. Steel prices—which soared as the tariffs were introduced—have since fallen below where they were at the outset of the trade war, dropping by more than 40% since last summer. As of October 2019, after months of price slides, domestic steel suppliers have already begun increasing steel pricing.

Despite the recent decline and short-term continuation of decreasing producer price indices for key construction materials, based on recent market and policy trends, cost escalations appear likely to remain in place for several more years. These increases will result in increased costs for Metro projects.



Contractor Confidence Index Remains Optimistic

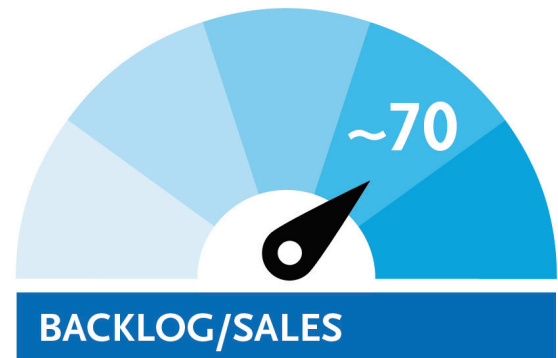
The Construction Confidence Index (CCI) measures general contractors', subcontractors' and design firms' sentiment about the current market and where it will be in 3 to 6 months and over a 12- to 18-month period. The CCI is a forward-looking national indicator that reflects the industry's perceptions and expectations of the business environment through indicators such as sales, profits, and staffing. Index readings above 50 indicate growth optimism, and below indicate growth pessimism.

Contractors became slightly less confident since January 2019 regarding their staffing levels because of greater challenges recruiting and retaining talent, dropping from 68.2 to 63.6 points. Given the large and growing skills shortages and rising compensation costs, contractors are finding it increasingly difficult to hire skilled workers who can complete jobs within the estimated labor costs.

Most contractors still have high confidence in the market's ability to provide new business opportunities and believe they will see revenue growth despite a point drop of 4.6 to 63.8. Profit margins dropped less than 2 points in 2019, finishing at 58.5 in December, strongly suggesting that demand for construction services remains elevated.

All 2019 indicators showed an overall decrease in index number, yet all remain above 50 points, suggesting a growing market. Moving into 2020, Associated Builders and Contractors (ABC) chief economist Anirban Basu believes "Contractors [will] continue to position themselves for a growing and more profitable marketplace with expectations of rising sales, wider profit margins and larger teams of workers." However, abundant risks remain including material price fluctuations and the struggle to meet shorter project schedules with limited resources.

CCI Data



- Significant Slowdown (0-19)
- Down Market (20-39)
- Neutral Market (40-59)
- Healthy Market (61-79)
- Boom Market (80-100)

Emerging Trends Challenge “Business as Usual”

Increasing demand for construction combined with industry challenges such as labor shortages affecting productivity have shifted needs and emerging trends in the market. Current trend drivers include increases in megaprojects, contractors bidding more selectively, perceived risks of P3 delivery, and growing interest in alternative delivery methods.

Megaprojects

Massive and transformational undertakings costing over a billion dollars, megaprojects also involve more stakeholders. This scale of effort comes with more unforeseen challenges, construction duration up to a decade, and historically overrun cost and schedule objectives.

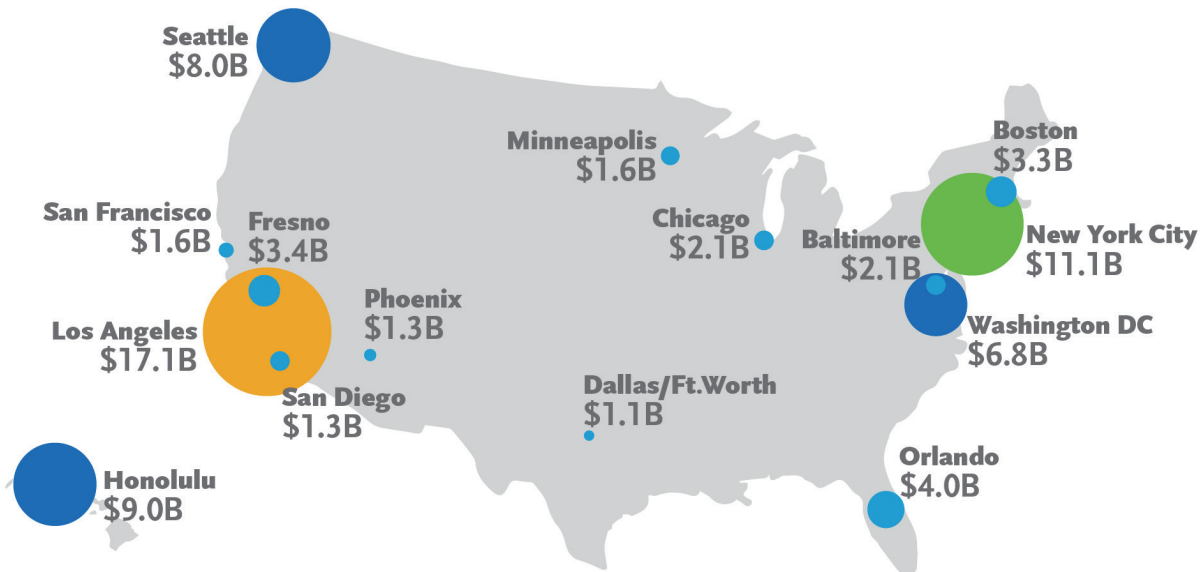
The demand to rebuild infrastructure is high, and megaprojects are growing larger and increasing in number and complexity. Between 2013 and 2018 alone, the annual value of US megaprojects increased from 3% to approximately 33% of all US

construction project starts^{xi}. Today, 473 megaprojects are planned in the US between 2019 and 2023, and the average size is expected to increase 37% from \$2.1 billion to \$2.9 billion. The US is projected to exceed \$2.5 trillion in total construction allocated for megaprojects in the next decade, and— notably—these projects are densely located:

- California, Texas, and New York represent 40% of the national total for planned megaprojects.
- Over the next 3 to 5 years, 50% of megaproject construction will occur in only 20 metropolitan markets.

Owners and contractors are struggling to develop accurate bid estimates and manage the administrative burden inherent in the scale and complexities of megaprojects.. Megaproject performance analysis indicates that merely one out of ten megaprojects in all US market sectors are delivered on time and on budget. This trend is not likely to improve, because the pool of contractors and resources will be further constrained as the number of megaprojects in the market increases.

RAIL TRANSIT MEGAPROJECTS UNDER CONSTRUCTION BY METROPOLITAN AREA



Megaprojects: Increasing in Number, Size, and Complexity



473

MEGAPROJECTS
PLANNED IN U.S. FOR
NEXT 4 YEARS (TO 2023)



40%

OF NATIONAL TOTAL FOR
PLANNED MEGAPROJECTS
ARE IN CALIFORNIA, TEXAS,
AND NEW YORK



37%

INCREASED AVERAGE
SIZE EXPECTED FROM
\$2.1 B TO \$2.9 B



90%

OF MEGAPROJECTS IN
THE US EXPERIENCE
SCHEDULE DELAYS
AND COST OVERRUNS



12

METRO MEGAPROJECTS (> \$1B)
TOTALING \$35B ARE UNDER
CONSTRUCTION OR PLANNED
IN NEXT 10 YEARS

Contractor Bid Decisions

With a strong backlog growth and optimism in future demand for construction, contractors are being more selective when bidding work. As a result of the tremendous demand and less contractor capacity, there will be diminished competition on bids and margins will be driven up that will likely increase construction costs for owners.

One of the biggest considerations for contractors in making decisions to bid are fixed-price agreements that lock in a price early on. As things change on fixed-price jobs, so does costs, increasing the chances for disputes between contractor and owner about who is responsible to pay for these changes.

Another factor influencing contractor willingness to bid is contract terms and conditions. Contractors are seeking more “friendly” terms and conditions related to liquidated damages, significant upfront payment on mobilizations, and clauses that mandate ongoing issue resolution.

Five of the Engineering News Record's top 25 ranked contractors are backing away from, or are more risk averse to, P3 delivery.

Weighing the Risks of the P3 Market

The rapid deterioration of infrastructure in every state, investment shortfalls for building and rebuilding vital public systems, and overcapacity of systems are forces driving the expansion of the public-private partnership (P3) market in the US. The US Department of Transportation defines P3s as “contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.”

At the heart of the P3 model is the principle that risks associated with the delivery of infrastructure should be allocated to the contractual party best able to manage them—both the public and private sector have echoed that efficient allocation of risks between partners is needed to have a successful project. Problems arise when risks are not identified or properly allocated prior to beginning work, and neither the owner nor contractor can agree on who will pay for the additionally incurred costs.

This was the case for five of ENR's top 25 ranked 2019 contractors who recently became considerably more selective when choosing which P3 projects to participate in, or discontinued participation in P3 projects in the US altogether^{xii}. Each contractor reported large financial losses as a result of recent projects, heavily influencing their decision to limit involvement in P3 projects in the US. And as risks facing large public projects increase due to the growing pressures over labor and materials prices, contractors are being even more cautious about this alternative delivery.

While several of the country's largest contractors are moving away from P3 projects, others see them as a worthwhile solution to financing, designing and building large-scale government projects. Under the right circumstances and with the right partners, P3s can have extraordinary results compared to other methods. The Design-Build Institute of America (DBIA) recently produced a position paper on the delivery method, saying it “supports P3s as a potentially effective and efficient method to help address our nation’s infrastructure financing and delivery challenges,” noting that the key to a successful P3 is collaboration between parties in all phases of project delivery^{xiii}. Even as the P3 model becomes an important part of the country’s infrastructure landscape as state and local governments try to drum up new funding sources and minimize their risk of cost overruns and schedule delays, the US currently lags behind other nations. Canada, widely acknowledged to be the key source of international best practice for P3, has initiated dedicated procurement offices and standardized P3 contracting as risk reduction measures. In contrast, US contract terms vary from project to project—adding uncertainty and decreasing attractiveness to potential bidders.

Alternative Delivery Methods Are Gaining Traction

The industry is looking to alternative delivery methods, instead of traditional design-bid-build (DBB) and design-build (DB), to address capital programs and projects that are trending larger in size and with greater complexity. These alternative delivery methods are intended to better address (1) quality, time, and cost requirements, (2) risk sharing between stakeholders and project delivery partners, and

(3) increasingly constrained market resources including attracting proposers from a limited bidding pool. Primary among these alternative delivery methods is Construction Manager/General Contractor (CM/GC) and Progressive Design Build (PDB).

Construction Manager/General Contractor

CM/GC is in some sense like a hybrid of DBB and DB, because the owner separately procures a designer and a contractor (like with DBB), but brings the contractor (the CM/GC) onboard during the pre-construction phase to collaborate with the owner and designer during design development. This collaboration is intended to assist with constructability reviews and value engineering of the final design (like with DB). Under CM/GC a Guaranteed Maximum Price (GMP) is negotiated with the owner for delivery of the construction project (in whole or in phases).

Progressive Design Build

PDB is like a hybrid of DB and CM/GC, whereby delivery involves a single procurement of the resources necessary to complete final design and construction (like DB), but a firm fixed price is collaboratively developed between the owner and the DB contractor during the Preconstruction Phase of the project (similar to CM/GC). The primary difference with “traditional” design-build is the award is qualification based, not price based. Essentially, the owner defers obtaining price and schedule commitments until after the design has been sufficiently defined to support improved baseline establishment.

COMPARISON OF ALTERNATIVE DELIVERY METHODS		
Alternative Delivery Method:	Construction Manager/ General Contractor	Progressive Design-Build
Key Features		
Negotiate GMP for delivery of the construction project (in whole or in phases)	✓	
Create “off-ramp” milestones during pre-construction	✓	
Utilize qualification-based selection		✓
Defer price and schedule commitments until after the design has been sufficiently defined		✓
Shared Benefits Addressing Market Conditions		
Doesn't lock the bidder into a firm fixed price at the time of the bid, reducing contractor risk	✓	✓
Reduced time of delivery by overlapping early critical path construction items	✓	✓
Early input from the contractor via constructability reviews and value engineering	✓	✓
Additional Benefits		
Provides for greater cost certainty through GMPs	✓	
Lower proposal preparation costs to attract more bidders		✓
Low bid is not the deciding factor in selection		✓



03

Metro's Response to Shifting Construction Market Conditions

Three intended outcomes shape Metro's strategy for adapting to evolving market conditions: increase the labor pool, be the owner of choice, and create a stronger and more resilient organization.

Increase the Labor Pool

Metro recognizes the need to build and train a diverse, inspired, and high-performing workforce as outlined in Metro Vision 2028 Strategic Plan Goal 5.7. Over the past few years, Metro has made significant strides to developing a diverse labor pool and embarked on bold strategies to develop the next workforce generation.

WIN-LA Workforce Program Is Developing Needed Resources

As of today, 50% of Metro's workforce will be eligible for retirement by 2024, and a qualified workforce is needed to continue building and maintaining Los Angeles County's transportation infrastructure.^{xiv} The boom in local infrastructure development, coupled with the agency's aging workforce, creates an urgent need for a new generation of qualified, trained, and prepared talent that reflects the region's demographics.

“Contractors are paying more to locate and train labor, and paying for more overtime hours. However, the quality and productivity of workers has declined as a result of a poor pipeline of craft personnel who are well trained and skilled.”

Ken Simonson, AGC

Metro's workforce development program, Workforce Initiative Now Los Angeles (WIN-LA), is helping address this challenge increasing opportunities and creating career pathways in the transportation industry—including construction.

WIN-LA focuses on Los Angeles County communities and individuals who may be underrepresented in the workforce:

- Economically challenged communities
- Emancipated foster youth
- People who are veterans, homeless, previously involved in the criminal justice system
- People who or lacking a high school diploma or GED

WIN-LA is delivered through established regional partnerships between Metro, the Los Angeles Regional Community College Consortium, the Transportation Workforce Institute, and community-based organizations.

Beyond providing needed resources for training and placement of hard-to-fill positions within the transportation industry, WIN-LA collaborates with program partners to support areas such as life skills development, skill set enhancement, and educational attainment services. By providing the resources needed for training and placement of these positions, WIN-LA was able to deem 89% of program participants as job-ready after completing training, and succeeded assisting 85% of participants from priority communities gain employment.

Strengthening Metro and Reducing Risk

Metro is implementing the largest transportation expansion program in the country and is experiencing the impacts of booming construction activity in Southern California.

In response, Metro is implementing critical steps to plan, build, and deliver critical mobility projects in Los Angeles County made possible by Measures R and M.

WIN-LA Workforce Development Program

50% OF METRO FORCE ELIGIBLE FOR RETIREMENT IN 2024



89% OF PARTICIPANTS IN WRP WERE DEEMED JOB-READY

85% FROM PRIORITY COMMUNITIES GAINED EMPLOYMENT

Contractor Outreach

300+ ATTENDEES AT INDUSTRY FORUMS FOR SEPULVEDA TRANSIT CORRIDOR AND LINKUS



24+ MONTHLY OUTREACH EVENTS BETWEEN METRO AND CONSTRUCTION INDUSTRY ASSOCIATIONS

SEED Transportation School/ E3 Youth Initiative Will Build the Next Workforce Generation

Metro and Los Angeles County has announced the kickoff of its Transportation School. This free boarding school offers vocational and college-preparatory curriculum tailored to train approximately 400 high school students annually in the transportation industry. It aims to attract students from across the county who have been homeless, in foster care, or involved in the criminal justice system (and through the WIN-LA Program)

Early plans for curriculum envision seven career tracks that include logistics, civics and public policy, engineering and mechanics, along with classes that meet State curriculum requirements. After graduation, students could obtain work with Metro or other local contractors, or go to college to study engineering, architecture, or urban planning.

The school aligns with Metro's Expose, Educate, and Employ (E3) Youth Initiative. E3's mission is to "prepare Los Angeles County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable industry skills." The initiative's goals include exposure to careers in the global transportation industry, education and training in transferrable transportation industry skills, and expansion of Metro's highly skilled and diverse workforce.

As Metro's soon-to-leave employees begin transition out of the work force in the next few years while the boom in local development continues, existing staff will move up to fill these positions, leaving thousands of positions to fill. Metro hopes graduates could address this critical projected need for qualified workers.

Helping Women Enter the Construction Market

The construction industry is a male-dominated industry that consists of roles traditionally filled by men. A perception that women are physically incapable of doing the work has been a barrier to entry, which has been reinforced by an unwelcoming industry and environment that lacks encouragement and support.

According to the BLS the construction industry is composed of only 9% women, which includes those in executive, administrative, and office roles. This number has remained approximately 9% since 1996. However, looking specifically at women workers on active job sites and in trades, women make up only 3.4% of the workforce.

If more women join the construction industry, more labor will be available to deliver projects now and in the future.

The inclusion of female workers to meet demand for future infrastructure projects is vital. The older construction workforce is growing faster than new, younger workers entering the market. Realizing the potential for women to find new opportunities while helping to address labor shortages, the industry has launched several initiatives supporting this movement.¹⁵

In 2016, Metro began challenging the status quo by implementing programs to support women entering the industry. Metro has passionately committed to increasing the number of qualified women candidates for apprenticeship and placement with all trades that work on Metro construction projects, and setting ambitious, measurable goals. These efforts to encourage and support women include Women Build Metro LA (WBMLA), and the Female Participation Scorecard.

Women in the Workforce

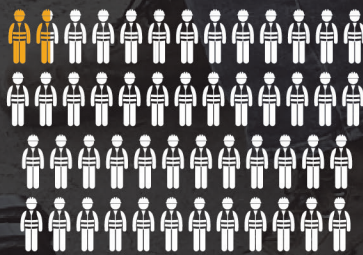
The number of women in construction has not changed for years despite several initiatives to address this issue. Metro is paving the way for women to enter the construction workforce through several initiatives.

- WIN-LA
- SEED Transportation School
- E3 Youth Initiative
- Female Construction Scorecard
- Women Build Metro LA



3.4%

WOMEN ON ACTIVE JOB SITES AND IN TRADES NATIONALLY



3.6%

METRO'S CURRENT AVERAGE FEMALE PARTICIPATION ON CONSTRUCTION PROJECTS AS OF SEPTEMBER 2019



6.9%

FEMALE UTILIZATION GOAL SET BY METRO BOARD EXECUTIVE ORDER 11246

Women Build Metro LA

In response to the lack of women in the construction workforce, WBMLA was established to recruit, educate, and support women's introduction to all aspects of the transportation industry, with an emphasis on the construction trades. This program supports Metro's Project Labor Agreement and Construction Careers Policy, which encourage construction employment and training opportunities to those who reside in economically disadvantaged areas on Metro construction projects. WBMLA is composed of women and men in construction related industries, community advocates, stakeholders, and decision makers from the private and public sectors who strive to improve access to career opportunities and serve as a catalyst for improving socio-economic status for minorities and women. By empowering women to pursue careers in the construction industry, WBMLA creates a more equitable and inclusive work environment.

Female Construction Scorecard

Construction workers on Metro projects are contractor employees. The current average female participation on Metro construction projects is 3.6% as of September 2019, compared to a Metro Board of Director goal of 6.9%. However, Metro aims to exceed the female utilization goal and has established a score card system to highlight prime contractors' attainment of this goal. From 2015 to 2019, with the establishment of WBMLA and the score card, female participation in Metro projects increased to from 2.9% to 3.8%, and from 1.0% to 2.3%, respectively. Metro continues to emphasize to contractors who work with Metro that increasing female utilization is a Board priority.

WBMLA and the female participation score card helped increase female participation in Metro projects from 2.9% to 3.6% and participation in greater Los Angeles area projects from 1.0% to 2.3% from 2015 to 2018.



Be the Owner of Choice

Metro has many successful relationships with the construction contracting community, but now more than ever, contractors have many options and must make savvy business decisions when determining which owners and projects to bid. Metro continues evolving and adapting more nimbly to changing market conditions to attract the highly qualified bidders, drive innovation, and support competition as outlined in Metro Vision 2028 Strategic Plan Goal 5.5: Metro will expand opportunities for business and external organizations to work with us.

Reducing Risk on Firm-Fixed-Price Contracts Through Alternative Delivery

Several large contractors have had major losses with firm-fixed price delivery because complex projects are difficult to accurately bid while accounting for uncertainties. Contractors have expressed that current contracts have skewed risk too far toward favoring owners, resulting in limited bidding pools and withdrawn bids.

Understanding this trend in the market and the complexity associated with projects, Metro has begun evaluating more equitable alternative delivery methods.

Allowing more equitable sharing of project risk and engaging in earlier collaboration to help refine scope and price will increase contractors' ability to assess and account for risk before submitting a firm-fixed price.

Delivery methods such as pre-development agreement (PDA), construction management/general contractor (CM/GC), and progressive design-build (PDB) when soundly contracted and administered allow for contractor insight on

critical design decisions helps to reduce risks, facilitate improved management of costs, and accelerate delivery.

These alternative delivery methods provide equitable sharing of project risk. Attracting a larger pool of bidders becomes possible as risk is reduced and appropriate reward is available to the contractor.

As with any delivery strategy, benefits must be balanced by pitfalls. For alternative delivery strategies, the primary pitfall is implementation of a delivery method that is new to an owner and untested. Metro's implementation of a more formalized project delivery selection procedure is intended to weigh advantages and disadvantages of numerous contracting types, traditional and alternative, based on the project goals and attributes.

Attract More Bidders through Contractor Outreach

Metro has actively engaged contractors early and often regarding upcoming projects through several means:

- Sharing appropriate information (project scope, timing, procurement and financial approach, technical components)
- Holding one-on-one meetings with contractors during the pre-solicitation stage
- Hosting 300+ person industry forums and market sounding events

Advantages of early contract outreach include obtaining high-level feedback from the private sector prior to project procurement regarding project design, delivery mechanism, public funding commitments, and feasibility; and determining if there is sufficient interest to proceed with the procurement or the need to modify the procurement approach.

Scale Projects to Increase Competition

As Metro implements a large portfolio of small-, medium-, and large-scale projects, there will likely be fewer and higher-cost bids from contractors as a result of contractor capacity and labor availability challenges in the market. For megaprojects, there are select few contractors that are willing to take on the high risk associated with these projects. Metro may want to evaluate contracting options that logically phase projects for initial operating segments (IOS) and structure contracts to allow the contractor to build a manageable IOS and have the option to build the subsequent IOS based on performance.

“Attracting a larger pool of bidders becomes possible as risk is reduced and appropriate reward is available to the contractor.”

Ken Simonson, AGC



Multiple Metro projects will compete with each other for the same pool of resources. Metro may need to consider contractor-friendly terms and conditions to incentivize additional bidders on small- and medium-size projects. Although doing so creates greater administrative burden, scoping projects into smaller packages will create more bidding opportunities for smaller contractor firms that would otherwise be unable to provide necessary bonding or form teams for larger procurement packages.

Create a Stronger and More Resilient Organization

As Metro implements the largest transportation expansion program in the country, it has experienced the impacts of the booming construction activity in Southern California and macroeconomic market conditions. Subsequently, Metro has started to implement critical steps to plan and build projects more cost effectively, with less risk to accelerate. Aligning with Metro Vision 2028 Strategic Plan Goal 5.5: Metro will expand opportunities for business and external organizations to work with us, these critical steps to position Metro for the shifting construction market conditions are outlined below.

Metro's Program Management Department has instituted internal training, mentoring and provided large amounts of hands-on experience and responsibility to personnel working on megaprojects. Megaprojects are tremendous opportunities for young and new personnel to learn, accept challenging assignments and move up the ladder.

Lessons Learned to Overcome the Megaproject Challenges

Managing the delivery of megaprojects is difficult, resulting in increased claims and change orders, delays, and owner/contractor disputes ending in litigation. The size and complexity of megaprojects amplifies cost increases and schedule delays resulting from these issues. In the past, most megaprojects have been delivered through low-bid design-bid-build or design-build. Depending on the type and complexities of the projects, these delivery methods can be appropriate, but have a greater risk of cost overruns due to low bid selection that does not account for the risk uncertainties and complexities of megaprojects.

As outlined in Metro Vision 2028 Strategic Plan Goal 5.2 (Metro will exercise good public policy judgment and sound fiscal stewardship), Metro is using best practices for sound fiscal stewardship by better defining and controlling the costs of infrastructure projects. Reviewing Metro's current and past megaprojects reveals several successes on current and past projects, such as the Purple Line Extensions. Many of the lessons learned from Regional Connector and Crenshaw/LAX are being incorporated into current and planned Metro projects to increase market-readiness, improve execution, and manage costs. Some of the lessons learned can be applied on several levels:

- Provide clear project team governance and administrative support
- Conduct quality assessments for deeper understanding of project issues and opportunities
- Perform additional early due diligence for major identified risk areas, as well as cost, schedule, and value factors
- Provide internal clarity around major commercial terms and project specifications

- Create dispute resolution procedures both parties can rely on
- Design to appropriate levels based on risk assessments

Furthermore, planned megaprojects in the Metro portfolio are also being evaluated for the most appropriate and cost-effective delivery methods, as seen with West Santa Ana Branch Transit Corridor, Sepulveda Pass Transit Corridor, and Link Union Station. Project considerations including constraints and opportunities, value for money, empirical metrics, and risk transfer are being evaluated to identify the most appropriate project delivery method. Through this process, the historical challenges of costs and risks associated with megaprojects will be better defined and managed to ultimately improve the delivery execution.

Greater Collaboration Among Departments to Better Manage Scope and Costs

As projects transition from the Metro Countywide Planning Department to Program Management, so does management responsibility. To leverage expertise and resources, there has been more strategic and greater collaboration between respective Metro departments during the early stages of project development. The enhanced collaboration between Countywide Planning, Program Management, Construction Management, Real Estate, and Operations and Maintenance will help reduce risks and accelerate projects through knowledge transfer by multidiscipline subject matter experts, innovation to solve technical challenges, implementing best practices, and aligning Metro plans, policies, and initiatives. Irrespective of which Department a project lies with, closer collaboration with each Department will enhance the scope, public benefit, and more accurately ensure schedule and costs are accounted for from the inception of the project.

Improved Risk Management Program Accounts for Uncertain Market Conditions

Metro developed a Risk Management Program Plan to formalize and document risk management protocols and practices, and commence risk assessments at the earliest practicable time in the project life. The Risk Management Plan is a robust tool to guide projects in identifying and managing project risks and opportunities. The plan includes guidance on risk management, top-down and bottom-up risk analysis, and risk and contingency management. The focus is to avoid and/or mitigate risks (and optimize opportunities) so avoidable cost increases do not compound already higher construction costs.

A key component of the risk management process is an assessment of Market Conditions. A continually tightening marketplace, lack of bid competition, inflation/escalation pressures, and the resulting likelihood of higher bids are considered in the risk modeling and establishment of contingency amounts reflective of this risk.



04

External Factors Influencing Metro

Several emerging trends in the construction industry are affecting Metro's ability to deliver Measures R and M. Although many trends are outside of its control, Metro can develop strategies to position itself for positive external factors and minimize potentially negative external factors.

To position itself for success in this market, Metro is taking proactive, necessary steps for factors it can control. However, significant external factors—beneficial and detrimental—are largely beyond Metro’s control.

Beneficial External Factors

Economic Downturn May Ease Construction Market Demand

The most recent recession began more than 10 years ago, which increases the probability of an economic downturn sometime soon. In the event of a downturn, private investment and development would slow, causing a ripple effect throughout the economy. As private construction projects pause, the available labor market would be greater for Metro projects.

Although a recession would produce less sales tax revenue to fund Metro’s construction projects, it would create opportunity for Metro to tap a deeper pool of available workers. Likewise, contractor competition would increase as bidders seek project owners with resilient and continuous streams of revenue for construction.

Fate of Federal Surface Transportation Bill Creates Uncertainty

Potential delays in the reauthorization of the FAST Act, set to expire in September 2020, and Congress’ ability to identify new revenue sources to support the Highway Trust Fund is a major concern. Many state transportation agencies rely on the Highway Trust Fund to provide 50% or more of their highway and bridge capital investments. Although several attempts to pass a major infrastructure bill in Washington have occurred, none built enough momentum to get out of Congress.

Concerns regarding timely approval of a new federal surface transportation bill may cause some state and local agencies to delay construction projects as a consequence of sparse federal funding. This could temper the transportation construction market in 2020 and potentially 2021. This scenario may be beneficial to Metro because Measure R and M are locally funded revenue streams. Contractors would be drawn to bid with agencies like Metro, which could result in greater competition and lower bids on Metro projects.

“With the unlikelihood of a new infrastructure bill from Washington, the number of new projects will taper off in the next few years, which will be beneficial for Metro.”

Ken Simonson, AGC

Changing Priorities in the Regulatory Setting

The regulatory process of approving infrastructure projects is complex, lengthy, and burdensome. It can take longer to obtain environmental clearance and permits than it takes to construct the project.

Once in construction, projects must comply with strict regulations from many federal permits that typically slow construction and add unnecessary expense to projects.

To address this issue, the Council on Environmental Quality (CEQ) is proposing to comprehensively update and substantially revise

National Environmental Policy Act (NEPA) procedures to make the environmental review process more efficient. Key provisions include limiting time for completing environmental impact statements to 2 years, and 1 year for environmental assessments, which would give project owners greater authority in preparing their own environmental impact statements.

Metro major transit and highway projects typically receive federal funding and are then required to go through the NEPA process. This potential streamlining of NEPA will help Metro projects with federal funding get out to the market sooner therefore reducing costs and accelerating delivery.



Detrimental External Factors

Many external factors deserve attention now, and as they continue evolving, as part of Metro's strategy to achieve its three intended outcomes in construction: high cost of living constraints, third-party collaboration influences, agency competition for resources, and ballot measure trends in California and beyond.

High Cost of Living Deters Qualified Workers

According to Zillow estimates, the \$2,950 median rent for the Los Angeles area is nearly double the national median rent of \$1,590^{xvi}. Los Angeles is also considered one of the least affordable metropolitan areas in the country based on the ratio of house prices to household income^{xvii}. This issue hits blue collar workers the hardest, because the price of housing more than eliminates the advantage of higher wages in the Los Angeles area.

The need for labor is so significant that it will be essential to bring in qualified workers from outside Southern California. But the high cost of living poses a major hurdle for contractors trying to hire qualified workers from outside the region to work in Los Angeles. For specialized work, contractors are having to provide special hiring packages, higher salaries, and subsidies for transportation and relocation costs. These costs are reflected in contractor bids and drive up the costs to build projects.

Third-Party Collaboration

Misalignment with local jurisdictions and utility agencies is an issue that continuously causes project delays. Close coordination with all interfacing governmental entities and utility owners is important for maintaining project schedule and budget. Some of the common issues impacting project delivery include the length of submittal review times, changes in assigned reviewers, scope creep, inconsistent review comments, multiple rounds of review, and lack of authority for approval. Enhancing collaboration and expediting third-party jurisdictional and utility processes could help offset the cost and schedule pressures facing Metro in these market conditions. Metro is addressing this issue by evaluating how it can develop simpler master cooperative agreements (MCAs) that are more user-friendly, particularly for jurisdictions new to doing business with Metro.

Accounting for COVID-19

COVID-19 is creating a global economic impact that may soon affect the construction industry. Metro and contractors should brace themselves for potential supply-chain interruptions, labor disruption, increased costs for materials, logistic breakdown, and legal disputes. As a precaution, Metro should start conducting supply chain audits and identify vulnerabilities. The construction industry should prepare for short-term impacts, but the significance and duration of COVID-19 impact in the long term is uncertain.

Local Agencies Already Competing for the Same, Limited Resources

Southern California is arguably the infrastructure capital of the world with multiple billion-dollar-plus capital programs across various markets such as transportation, ports, aviation, water, and utilities. Major regional competition in construction market may divert potential resources away from Metro:

- California Department of Transportation (Caltrans) SB 1 highway repair and improvement projects
- Los Angeles Department of Water and Power (LADWP) \$1 billion program to transition to 100% renewable energy
- Los Angeles World Airports (LAWA)'s \$14 billion LAMP and \$2 billion Airfield & Terminal Modernization Project (ATMP)
- Orange County Transportation Authority (OCTA) freeway widening and improvement project totaling \$3 billion
- Port of Long Beach with construction of Middle Harbor, Pier B Railyard, and Gerald Desmond Bridge.
- Southern California Regional Rail Authority (Metrolink)'s \$10 billion Southern California Optimized Rail Expansion (SCORE) Program
- Virgin Trains' \$3.5 billion XpressWest high-speed rail line project connecting Southern California to Las Vegas

Consequentially, Metro's local peer agencies are all competing for the same limited resources to deliver their projects. In addition, contractors have multiple project owners to choose from and will prefer owners with favorable contracts.

Ballot Measures Rivaling Measure M Could Steal Construction Resources from Metro

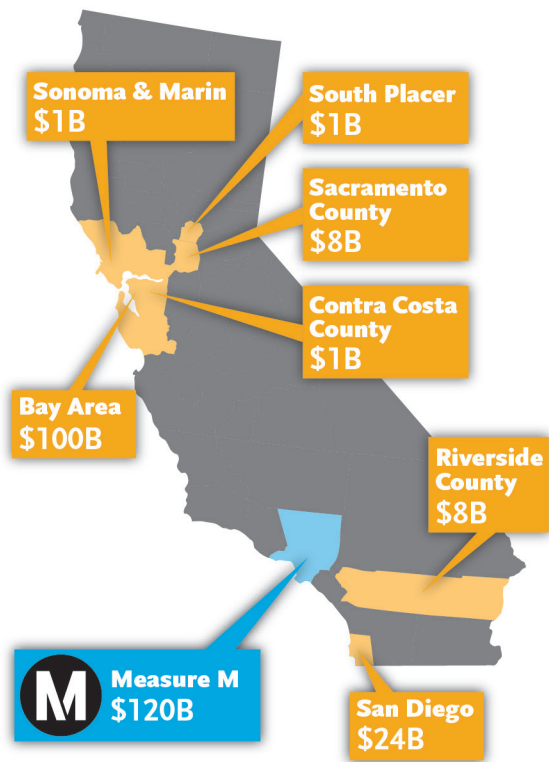
After witnessing the successful passage of two major transportation ballot measures, other jurisdictions are following Metro's approach by going to the ballot to fund transportation improvements.

Across the nation, nearly 90% of the 305 state or local transportation measures on the ballot in November 2019 were approved, resulting in additional \$9.6 billion in potential construction spending on projects in the next few years. In addition, recent legislation in California is making it easier for agencies to place funding measures for special districts or on a sub-regional basis. Therefore, several transportation ballot measures and funding strategies outside of Los Angeles County that rival Measure M could pass in 2020. Passage of these ballot measures and programs, especially in California, would significantly increase construction demand, further constraining the short supply of construction labor to support Metro's capital program under Measures R and M.

- **Bay Area** – A nine-county initiative in the San Francisco Bay Area, called the “Faster Bay Area Transportation Tax” will be on the November 2020 ballot. This ballot initiative is projected to generate approximately \$100 billion over 40 years for transportation projects. Projects would likely include transit and rail projects, and highway and bridge improvements. Polling for this ballot measure is hovering around 70% in general support.

- Riverside County** – In December 2019, Riverside County Transportation Commission (RCTC) approved the placement of a half-cent sales tax increase on the November 2020 ballot to generate \$8 billion in transportation infrastructure. The half-cent sales taxes would have no sunset and could generate several billion dollars over the first 30 years. Potential projects would mostly be highway and regional rail improvements.
- San Diego** – San Diego Metropolitan Transit System is moving forward with a half-cent sales tax measure on the November 2020 ballot to fund nearly \$24 billion over 50 years for transportation projects.
- Other California counties plan to go to the ballot box with transportation funding measures in March and November 2020.

Ballot measures at the local, state, and regional levels rivaling Measure M could threaten Metro’s construction resources.





05

Future Construction Market Projection

Economic modeling was used to identify the number of construction jobs that will be generated from construction activity between 2020 and 2030. The modeling results shows a significant labor shortage between the estimated construction labor required and available construction labor force.

Metro’s Construction Expenditure Forecast

To forecast Metro’s annual construction expenditure for its projects, a model was developed to analyze available project data such as construction costs, anticipated construction start dates, and construction duration. The data was entered in an S-curve model to capture the cumulative progress of a project as construction activity typically begins slowly, ramps up in the middle, and then slows toward completion.

Over the next 10 years, Metro construction expenditures will likely average nearly \$2.9 billion per year with expenditures peaking in 2025. The figure below provides details of Metro’s forecasted capital expenditures by year and project type. This forecast does not capture all Metro projects, such as the I-710 South Corridor, due to uncertainty in how the project will be built, and Crenshaw Northern Extension, which is estimated to start construction outside the forecast period.

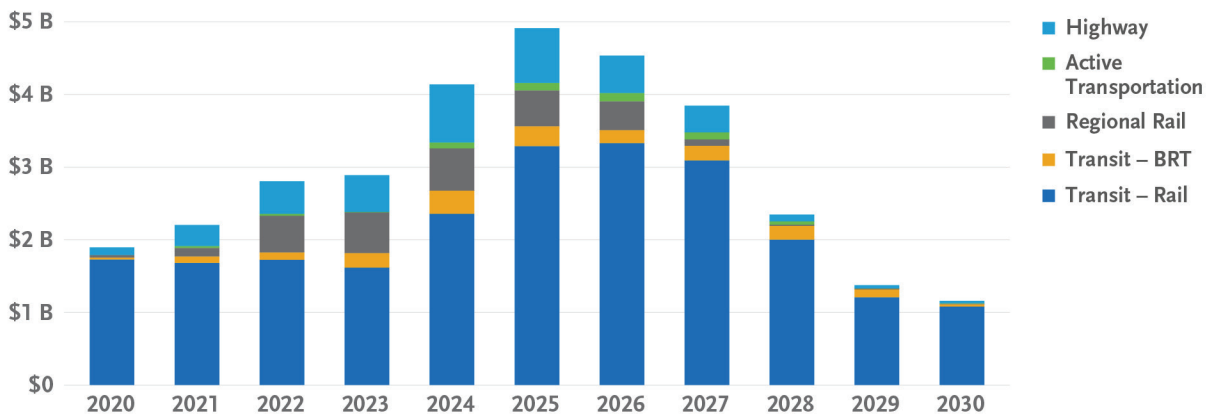
Local Agency Construction Budget Forecast

Local agency construction budgets from 2020 to 2030 with major capital programs were forecasted similarly and are summarized below.

These local agencies were categorized by sector:

- Transportation: Caltrans, OCTA, RCTC, SANDAG, SBCTA, SCRRA, Virgin Trains
- Airports: LAWA, BUR, LGB, ONT
- Water: MWD and LADWP
- Ports: Los Angeles and Long Beach
- Schools: LACCD and LAUSD
- Municipalities: City of Los Angeles, Los Angeles County, Orange County, San Bernardino County, Riverside County

METRO ANNUAL EXPENDITURE BY CONSTRUCTION PROJECT TYPE



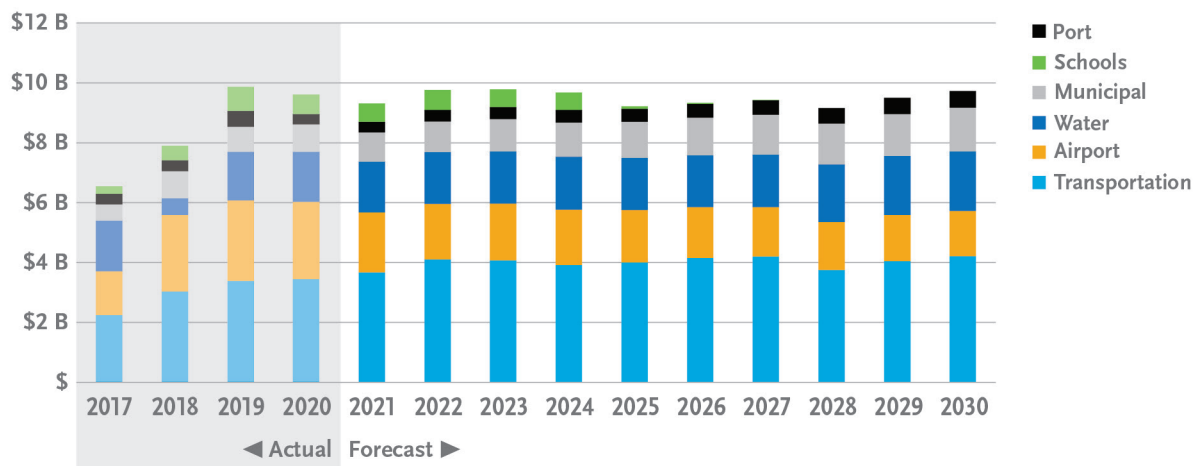
Most agencies reviewed included annual budgets out to Fiscal Year 2021 only. To estimate the budgets for years 2020 to 2030, linear trends were projected based on historical data.

Since the 2018 report, local agency budgets are anticipated to increase by \$1.9 billion annually to an annual average of \$9.5 billion over the next decade. This increase is driven by SB-1 going into full effect after repeal efforts failed in November 2018, the passage of Los Angeles County’s Measure W, LAWA’s \$2 billion Airfield & Terminal Modernization Program (ATMP), LADWP renewable energy and recycled water program, Metrolink’s SCORE program, and Virgin Train’s XpressWest project.

The total construction amount of capital improvement projects in the region which would directly compete with Metro’s capital program over the next decade is projected to be \$104.5 billion. In contrast, Metro’s total construction amount over the next decade is projected to be \$35 billion, or 33.5% of all projected construction spending in the region between 2020 and 2030.

This data will be affected by ongoing events such as local ballot measures and awards of State and federal funding to local agencies. If approved, many transportation improvements planned in future decades will be accelerated. Expenditure plans for the pending local ballot measures were not included in this report’s analysis.

LOCAL AGENCY FORECAST OF ANNUAL CONSTRUCTION SPENDING BY SECTOR



Dodge Data for Other Non-Residential and Residential Construction

Private development is a major source of construction demand in Los Angeles with major cultural and entertainment projects in construction, including the NFL Stadium and the George Lucas Star Wars Museum. Downtown Los Angeles, Hollywood, and Silicon Beach are seeing significant growth in private development. Private development demand now employs the majority of construction labor. Construction expenditure data for private development is typically not public information, but is trade specific; therefore, to obtain past expenditures and projected projects, Dodge Data & Analytics was contacted and the private development construction expenditure data were purchased for the region (Los Angeles County, Orange County, San Bernardino County, and Riverside County). The Dodge data was then adjusted to account for possible double-counting in the nonbuilding and nonresidential project expenditures as well as Metro and local agencies construction expenditures.

Key Indicator:

Los Angeles tied Seattle for the most construction cranes in the US in 2019.

How the Number of Construction Jobs Required Was Modeled

Data gathered from the Bureau of Labor Statistics (BLS), LAEDC, local agency budgets, Dodge data, and Metro were used to model the job creation impact to the region (Los Angeles County, Orange County, San Bernardino County, and Riverside County) for the period of 2020 to 2030. Economic modeling was performed with the IMPLAN model to determine job creation by using construction budgets for Metro and local agencies and using Dodge data for private development as input. These employment values were compared to the current BLS number of construction employment for the current year and projected out to 2030 based on various growth factors including LAEDC's latest growth rate for the construction industry in the region.

The available construction labor was based on the current BLS employment and projected by California Employment Development Department (EDD) growth of 2% for the construction industry. This growth rate was adjusted slightly in the latter half of the decade to account for slowing population growth in California.

Limitations of the analysis should be considered when evaluating the data as the model does not account for employment resulting from other public or private construction expenditures. For example, the planned local agency public expenditures do not include any planned construction for the statewide expenditures on public construction projects such as the California High Speed Rail project and the University of California capital projects. Additionally, projected private construction expenditures data from Dodge excludes minor additions or alterations to existing buildings.

The Forecast Reveals a Prolonged Construction Labor Shortage

Although speculative, this 10-year economic analysis provides a view into the construction employment conditions that are anticipated from 2020 to 2029. It provides a basis to further develop trends that will impact the implementation and completion of Metro’s projects. The results of this employment conditions modeling show that demand for construction jobs exceeds the available resources to fill these jobs.

The results from the economic modeling forecast for the annual estimated number of construction jobs is provided in a table. The construction industry is expected to sustain substantial growth and need for construction labor in preparation for the 2028 Olympic Games in Los Angeles along with significant investment in infrastructure and private development. After the Olympics, the construction industry will likely experience a slight decline as a localized market correction that reflects completion of Olympic-related construction activity.

ECONOMIC MODEL FORECASTING RESULTS FOR ANNUAL ESTIMATED NUMBER OF CONSTRUCTIONS JOBS

Year	Available Construction Labor	Estimated Construction Labor Required	Estimated Metro Construction Labor Required	Labor Shortage
2020	369,600	376,100	10,100	6,500
2021	376,600	386,900	11,500	10,300
2022	383,800	397,700	14,600	13,900
2023	391,100	409,000	15,100	17,900
2024	398,500	421,800	21,700	23,300
2025	405,500	435,100	25,800	29,600
2026	411,600	447,100	23,800	35,500
2027	416,700	455,200	20,200	38,500
2028	420,900	458,400	12,200	37,500
2029	425,000	454,900	7,100	29,900

The current labor shortage is felt as contractors have difficulty filling positions on current projects. The next 5 years will likely bring a labor shortage gap between 10,000 and 30,000 people. The peak of the labor shortage is anticipated between 2025 and 2028, resulting in a shortage of approximately 35,500 to 38,500 people to fill construction jobs.

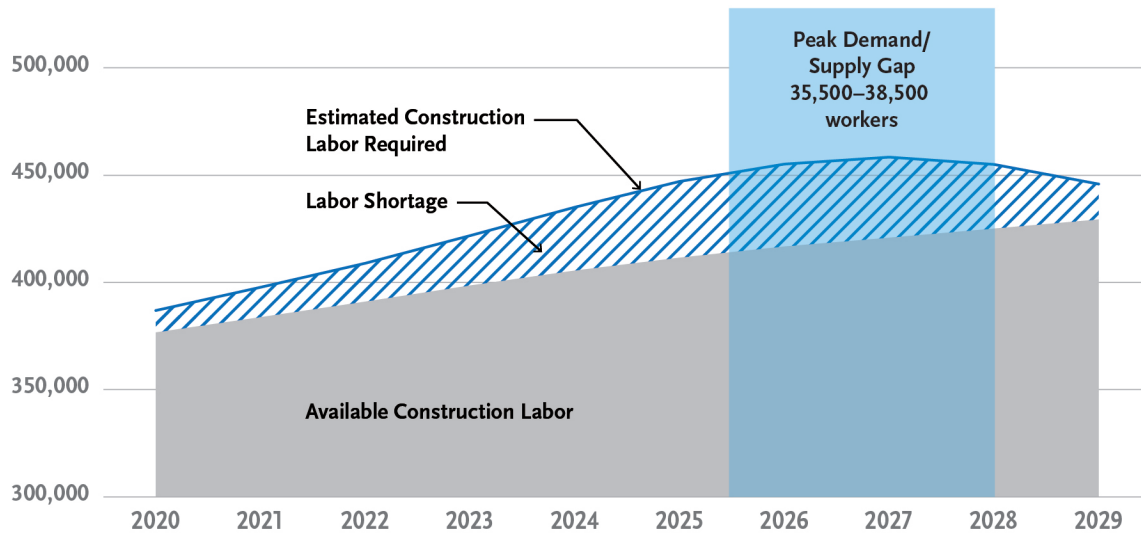
Metro will need to take significant further actions to close this labor gap. It represents the peak levels of construction expenditures as the region prepares to host the Olympics. The labor shortage will result in construction projects being delayed and costing more than originally anticipated. Following the conclusion of the Olympics, the labor shortage will subside as available labor reaches estimated demand.

This projected construction labor shortage as well as the estimated duration of the shortage is variable and will be affected by market conditions:

- Economic volatility
- Unforeseen events (such as national policy decisions)
- Natural and environmental disasters
- Population growth

Therefore, these conditions must be routinely monitored to detect either positive or negative impacts to the projected labor shortage. Annual updates to the findings in this study are prudent.

ESTIMATED CONSTRUCTION LABOR PROJECTIONS BETWEEN 2020-2029





06

SWOT and Recommendations

The next 10 years will see more construction work than workers and firms available at a reasonable cost. Metro's recent initiatives in management practices and innovative development of local talent are solid examples of adaptation to this challenging market. Staying competitive will require Metro to remain vigilant and diligent in assessing its strengths, weaknesses, opportunities, and threats (SWOT) facing project delivery.

Over the next 10 years, the Los Angeles market will see more construction work than it will have workers and firms available to execute the work and at a reasonable cost. Metro’s Measure M and Measure R programs will be affected by this lack of resources. Metro’s recent initiatives to implement best management practices and to initiate innovative approaches to developing local talent and resources are steps in the right direction to attract bidders and to expand available industry resources in a tightening and competitive marketplace.

As market demand increases, contractors will become increasingly selective about which projects to pursue. Decisions will depend on who is the project owner and the amount of risk that owner places on the contractor. Contract language that contractors perceive to be difficult, punitive, subject to interpretation, or inconsistent with other processes or procedures will be viewed as a source of conflict, uncertainty, and inefficiency, are more likely to be unattractive to potential bidders.

Assessment of Metro’s Strengths, Weaknesses, Opportunities, and Threats (SWOT)

A SWOT assessment is a useful tool for an organization to identify how it can enhance areas of strength, boost areas of weakness, minimize threats, and leverage potential opportunities. Metro developed a SWOT assessment relative to the construction market by examining national and regional economic conditions, the state of

the construction industry, emerging trends in the market, Metro’s previous actions, and external factors. Assessment results provide a basis for developing recommendations to prepare Metro’s strategy for the next decade of construction demand. The results also help align recommendations with its Vision 2028 Strategic plan’s three desired outcomes (increase the labor pool, be the owner of choice, and create a stronger and more resilient organization) to navigate the next decade of construction demand.

	<p>Strengths: Metro has taken bold actions to address labor availability, material cost challenges, and become the owner of choice.</p>
	<p>Weaknesses: Factors driving up project cost and testing Metro’s ability to deliver projects on schedule without sufficient resources.</p>
	<p>Opportunities: Should certain external factors occur, Metro has opportunities to leverage to their benefit.</p>
	<p>Threats: External factors beyond Metro’s control threaten to increase inflationary pressures and reduce available labor resources.</p>





Strengths:

Metro has taken bold actions to address labor availability, material cost challenges, and become the owner of choice.

- Project-by-project evaluation for alternative project delivery (P3, PDA, PDB, CM/GC) based on project goals and the need to better control cost and schedule.
- Countywide Planning and Program Management resources are collaborating earlier in the project lifecycle.
- Risk assessments are being conducted earlier and more regularly in the project lifecycle to identify project uncertainties and risk events affecting project budget and/or schedule, and mitigation efforts to reduce the probability of their occurrence.
- Outreach to contractors through one-on-one meetings, industry forums, and market sounding to obtain high-level feedback on project design, delivery mechanism, public funding commitments, and feasibility.
- Significant investments in workforce development initiatives such WIN-LA, SEED Transportation School, Female Participation Scorecard, Metro Youth Career Experience Program (MYCE), E3 Youth Initiative, Women Build LA, and the Women & Girls Governing Council.
- Increased internal training effort along with the experience gained by staff in managing megaprojects.
- Metro has initiated a review of third-party jurisdictional best practices with a goal of expediting the submittal review process.



Weaknesses:

Factors driving up project cost and testing Metro's ability to deliver projects on schedule without sufficient resources.

- Industry feedback on Metro procurements indicates that the process is still administratively burdensome and costly to bid.
- Along with the rest of the industry, Metro and its contractors are struggling with attracting qualified staff and talent.
- Multiple long-term megaprojects in the Measure M portfolio are complex and historically difficult to determine the life of project budgets.
- The sheer size and number of Metro projects is so great that the number of bidders per procurement will likely decline as contractors are forced to make difficult business decisions in this market.



Opportunities:
Should certain external factors occur, Metro has opportunities to leverage to their benefit.

- Identify potential project synergies between Metro and local jurisdictions for shared costs opportunities and win-win solutions to streamline local jurisdictional approval for Metro projects.
- Identify project delivery methods that are tailored to the project size, complexity, and attractiveness to potential bidders, including use of PDB and CM/GC.
- If interest rates rise, demand will decrease for income-producing and housing projects, possibly taking some pressure off of the labor shortage and materials costs.
- Advocate for regulatory reform to streamline environmental clearance and construction of transit infrastructure that can help reduce climate change.
- In the event of future recession, the Los Angeles market and Metro will likely be resilient to potential impacts and likely see more benefits, such as an increase in the number of bidders, more availability of talent and labor resources, and a decrease in bid prices.



Threats:
External factors beyond Metro's control threaten to increase inflationary pressures and reduce available labor resources.

- Occurrences of natural disasters and extreme weather events are increasing, resulting in billions of dollars in reconstruction efforts.
- An increasingly booming construction industry decreases the labor pool and increases wages.
- Impacts to materials costs if trade policies/tariff increases continue or remain uncertain.
- Jurisdictions outside of Los Angeles are initiating sales tax increases rivaling Measure M, which could further divert construction resources away from Metro.
- Contractors exiting the P3 market and being more cautious on bidding fixed-price projects.

Recommendations

In 2018, after Measure M passed, Metro commissioned a construction market analysis to evaluate conditions in Los Angeles County and Southern California. The 2018 report provided recommendations that have been implemented by Metro or are being developed. The findings in this 2020 market analysis, including the SWOT assessment, advance several more recommendations. The status of the 2018 recommendations, as well as the new recommendations resulting from this 2020 update, are discussed below.

2018 Recommendations Review

Previous recommendations from the 2018 Market Analysis are summarized to provide more complete strategic context. These earlier recommendations identified actions intended to enhance Metro's ability to deliver projects, expand the resource pool, and make Metro an "owner of choice." The following recommendations from the 2018 Construction Market Analysis have been implemented or are being developed:

- Develop a joint committee to develop skillsets relevant to the construction market.
- Identify appropriate projects that could use design-bid-build to increase bidding competition by smaller and certified firms to increase DBE/SBE participation.
- Evaluate contract language that might result in a less-attractive bidding climate to proposers and at higher cost.
- Conduct one-on-one meetings with proposers before or during the request for proposal (RFP) process to evaluate where they may include risk transfer to contractors.

- Increase the dollar ceiling for project-level change authority to reduce the time required to resolve change orders by delegating more authority at the project manager level.
- Develop estimates that are consistent with the current market trends.
- Develop contract language to allow for addressing project cost increases so risk to both Metro and contractors can be limited.
- Institute active engagement with the contracting community to jointly identify balanced risk sharing in contracts.
- Conduct regular interviews with the contractors to identify lessons learned.

2020 Recommendations

The results of the 2020 Los Angeles Construction Market Analysis point to an industry that will be challenged to fulfill nationwide public and private needs, especially within the transit and highway sectors. Public agencies, like LAWA and Caltrans, are investing in their infrastructure and will be competing for construction resources. The private sector is also competing for resources to construct new cultural and sports facilities in Los Angeles and rebuild more than 5,000 residential properties affected from recent wildfires throughout California.

Building on the strengths identified in the SWOT assessment, Metro's recent initiatives and policies, and implementation of the previous 2018 report recommendations, this 2020 study provides additional and refined recommendations aimed at supporting Metro's intended outcomes:

- Increase the labor pool
- Be the owner of choice
- Create a stronger and more resilient organization

Recommended actions are designed to increase the number of contractors and depth of craft and management resources available to build Metro projects. They focus on positioning Metro as the owner of choice for potential bidders, who are becoming increasingly cautious about which owners to invest in.

Based on the current market conditions and analysis presented in this report, recommendations are identified under each intended outcome they support.

Increase the Labor Pool

1. **Innovate worker housing.** Develop innovative ways to create housing for construction workers. For example, constructing dormitory-style housing that could serve the dual purpose of housing unemployed persons who are capable of job retraining into the construction field. Another approach could develop transit-oriented community sites to temporarily house construction workers during project construction, and then be sold on the open market after the transit project is complete.
2. **Leverage technology.** Establish an initiative to attract and engage new generations of potential workers while challenging outdated perceptions of the construction industry. Explore partnerships and concepts aimed at showcasing the industry's adoption of technology, along with opportunities to engage in tech innovation through training and career development that can benefit project productivity, schedules, and labor pool challenges.

Be the Owner of Choice















3. **Incentivize diversity.** Consider a different strategy by incentivizing contractors for meeting certain diversity thresholds in the form of bonuses.
4. **Reduce bidder burden.** Save contractors time and cost when proposing on Metro projects by (1) reducing and simplifying the number of contracting templates (require standard bid forms be prepared outside the proposal process to be completed once, placed on file at Metro, and remain effective until their information changes), (2) allowing for electronic submission of forms, certificates, and licenses, and (3) considering a three-firm limit on the number of bidders short-listed to avoid burdening contractors with the high cost of developing detailed cost estimates.
5. **Incorporate modular design.** Encourage modular construction design and approaches to simplify on-site construction, relieve local labor pool constraints, and streamline schedules. Taking the work to the workforce by fabricating project components at offsite locations with fewer constraints could benefit contractors and Metro in several ways: reducing local labor pool demand, saving cost, shortening schedule, and more competitive bids.

Create a Stronger and More Resilient Organization

6. **Phase implementation.** Assess the potential for initial operating segments of transit corridor with lower risk and complexity to maximize benefits for the money and getting the project out to market sooner.
7. **Share Cost.** Identify potential project synergies for shared costs opportunities through third-party collaboration on projects.

8. Recruit Talent. Maintain an aggressive posture competing with other agencies for limited available resourcetalent, including onboarding project management staff when qualified candidates are identified and available, even if prior to actual need arising.

Implementing these recommendations will help Metro expand available resources to serve its program by initiating an expedited and more bidder-friendly RFP process, attracting contractors outside of the region to participate in Metro procurements, building the craft labor base in the region, and structuring procurement packages to attract a greater range of responding firms.

RECOMMENDATIONS AND BENEFITS SUPPORTING METRO OUTCOMES						
Actions and Outcomes	Benefits					
Recommended Actions Supporting Outcomes	 Address Labor Shortage	 Reduce Cost	 Minimize Risk	 Attract Bidders	 Manage Schedule	 Response
<i>Increase the Labor Pool</i>						
1. Innovate worker housing	✓			✓	✓	
2. Leverage technology	✓	✓			✓	
<i>Be the Owner of Choice</i>						
3. Incentivize diversity	✓			✓		
4. Reduce bidder burden		✓		✓	✓	
5. Incorporate modular design	✓	✓		✓	✓	
<i>Create a Stronger and More Resilient Organization</i>						
6. Phased implementation		✓	✓	✓	✓	
7. Shared cost	✓	✓	✓		✓	
8. Recruit talent	✓	✓	✓		✓	

Acronyms and Abbreviations

ABC	Associated Builders and Contractors
AGC	Associated General Contractors of America
BLS	Bureau of Labor Statistics
CCI	Construction Confidence Index
CEQ	Council on Environmental Quality
DBIA	Design-Build Institute of America
ENR	Engineering News-Record
FAST	Fixing America's Surface Transportation
GDP	Gross Domestic Product
IOS	initial operating segments
LAMP	Landside Access Modernization Program
LAX	Los Angeles International Airport
METRO	Los Angeles County Metropolitan Transportation Authority
NEPA	National Environmental Policy Act
P3	public-private partnership
PDA	pre-development agreement
PDB	Progressive Design-Build
PPI	Producer Price Index
RFP	request for proposal
SCORE	Southern California Optimized Rail Expansion
SWOT	strengths, weaknesses, opportunities, and threats
UCLA	University of California, Los Angeles
USDOT	US Department of Transportation
WBMLA	Women Build Metro LA

Notes

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3	iv	Metro	Crenshaw/LAX Transit Project
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5	1	Metro - Steve Hymon	Westside Purple Line Extension Section 1
6	3	Metro	Patsaouras Plaza
7	5	Metro	Sepulveda Transit Corridor, Green Line Extension, West Santa Ana Branch Transit corridor, Eastside Transit Corridor Phase 2
8	7	Metro - Luis Inzunza	Regional Connector Transit Project
9	17	Metro - Luis Inzunza	Regional Connector Transit Project
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21	lv	Metro	Crenshaw/LAX Transit Project
22	Back Cover	Metro	Regional Connector Transit Project





Increase the labor pool.

Create a more resilient organization.

Be the owner of choice.



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Metro

Metro Construction Market Analysis 2020

COVID-19 Special Addendum

May 21, 2020

 COVID-19 UPDATE

Metro Construction Projects are considered essential and still moving forward.

GET UPDATES

Overview

Early this year, Metro had just completed its Construction Market Analysis 2020, a 2-year update that assesses the current and future state of the economy, identifies Metro's progress in response to tight construction market conditions, and outlines strategies for keeping Metro's capital program, especially megaprojects, on track over the next 10 years.

Meanwhile, the emerging COVID-19 pandemic posed an uncertain concern. Soon after, the dramatic economic effects became starkly clear.

This addendum provides an updated snapshot of the unprecedented and evolving global pandemic's effect on the state of the economy and construction market:

- Summary of the most current information available for COVID-19-related impacts
- Outlooks for key economic and construction market indicators
- Metro-centric circumstances and perspectives relative to its project construction goals, along with potential actions Metro may consider in response to this historic and dynamic global event.

The information presented in this addendum was current at the time it was completed on April 15, 2020.

State of the Economy

Impacts

The COVID-19 pandemic has created economic risks still not well understood by economist around the country. However, economist have consensus that a fully functioning economy will not return until people are confident they can resume normal activity without risk of contracting the virus.ⁱ Some also believe that the dramatic changes occurring are not necessarily resulting from fundamental economic factors. Others expect a depression to occur if the "safer at home" orders last until the summer.

- UCLA's Anderson Forecast spring update reveals that the US gross domestic product (GDP) is tracking to decline by 7.5% in the second quarter (an annual rate of -30%).ⁱⁱ
- Dodge Data & Analytics anticipates US GDP to decline by more than 6% in the second quarter.ⁱⁱⁱ
- Economists at various global banks project that US GDP will decline between 3% and 24%.^{iv}

These predictions are unable to capture potentially positive impacts of federal programs offering loans to businesses that rehire or retain workers. UCLA typically uses historical data from expansions and recessions to develop such forecasts. However, this economic shutdown is unlike any the US has ever experienced, making historical data essentially irrelevant.^v





**PUBLIC SAFETY
ACTIONS SLOW
COMMERCE AND
MOBILITY**

Businesses, consumers, and regulators are acting to limit the spread of the virus by implementing policies that restrict interactions and thus decrease the potential for transmitting the virus. Policies include travel restrictions (especially international), canceling sporting events and live entertainment, public school closures, restaurant and bar closures, and closure of any “non-essential” businesses.

As of April 6, California is one of 43 states that have instituted “safer at home” orders that restrict activity to essential jobs and personal needs such as grocery shopping and medical appointments.^{vi}

The most recent jobs reports and unemployment claims indicate that the number of unemployed workers may reach historic levels in the coming weeks and months. Jobless claims reached over 10 million nationally at the end of March (the first month of the pandemic), jumping more quickly than ever before.^{vii}

Results from UCLA’s Anderson Forecast spring update show the US unemployment rate peaking at approximately 13% in the fourth quarter of 2020, a total job loss of approximately 17 million. The forecast expects California’s unemployment rate to be higher than for the US, predicting that it will peak at more than 16% with 2.2 million jobs lost in the state.^{viii}

601_B



**UNEMPLOYMENT
GROWS**



**ECONOMIC SAFETY
VALVES OPEN**

In response to the pandemic, the Federal Reserve Bank and the federal government took steps to manage economic fallout by enacting monetary and fiscal policies aimed at cushioning the impact. In early March, the Federal Reserve slashed interest rates to nearly zero percent.^{ix}

Responding more quickly to the pandemic crisis than it did during the Great Recession of 2007-2009, the Federal Reserve has continued acting to keep financial markets functioning and credit available to the market, especially for small businesses.^x

Congress has also acted quickly to provide relief, passing three bills in response to the crisis. The most significant bill—the \$2 trillion CARES Act— includes \$25 billion for public transportation relief.

The \$25 billion for public transportation would be apportioned through the Federal Transit Administration based on Fiscal Year (FY) 2020 funding formulas that account for regional population, ridership, and other factors. The CARES Act dictates that, in some cases, it would be up to states, localities, and other recipients to determine how much of the broad-ranging grants or other types of aid would be devoted to operations and how much to construction. Of the \$25 billion transit funding provided under the CARES Act, the Los Angeles-Long Beach-Anaheim region has been allocated over \$1.2 billion.^{xi}



**FUNDING
ADDRESSES
TRANSPORTATION
NEEDS**

Economic Outlook

The COVID-19 situation remains highly dynamic and difficult to predict beyond the near-term. The ongoing nature of the pandemic makes it difficult to forecast the economic impact.

Current signs point to the economic impacts worsening before improving. If the federal stimulus packages provide the necessary cushioning in the interim and that normalcy resumes within a couple of months, the immediate economic hardship could be somewhat temporary. The resumption of the deferred consumption coupled with improvements in production and the supply chains are also likely to result in further improvements.

The decline in travel and fuel consumption will likewise cause the Highway Trust Fund's revenue to decline, which may affect states' Department of Transportation projects. However, the federal government is considering another relief bill related to infrastructure of up to \$2 trillion. This bill could provide an influx of funding for the construction of new transportation projects and accelerate shovel-ready projects.

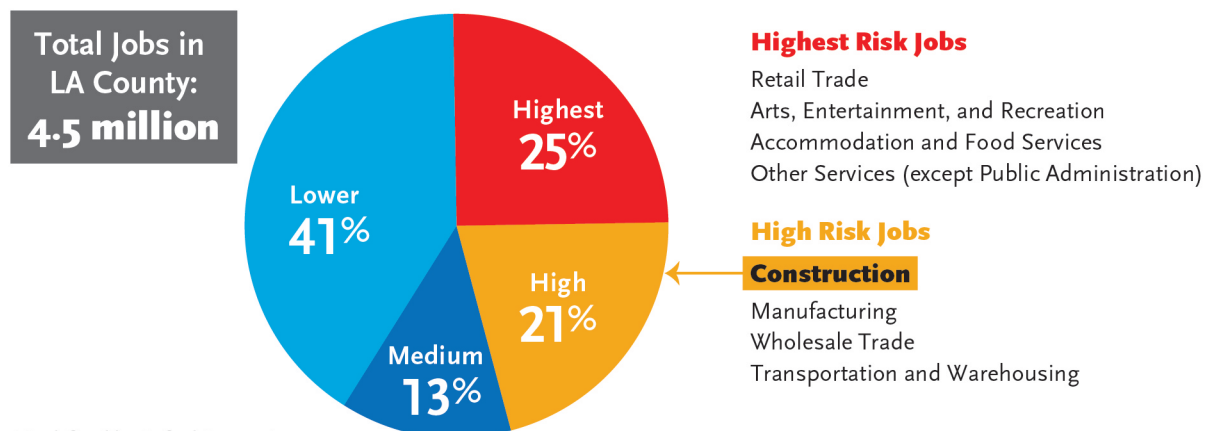
Challenges

- ✓ Economy is in a recession with the potential to fall into a depression
- ✓ Short-term labor shortages caused by health concerns
- ✓ Financial struggles for small business contractors
- ✓ Reduced/missed payments by financially distressed owners
- ✓ Cutbacks in public budgets

Opportunities

- ✓ Federal funding from stimulus packages
- ✓ Zero interest rates for financing projects
- ✓ Substantial price reductions on fuel and other commodities

AT RISK JOBS IN LA COUNTY*



*As defined by Oxford Economics

Source: Los Angeles Economic Development Corporation

Construction Industry

Impacts

Parts of the country have shut down projects while others have deemed construction an essential service. Even if not mandated, an increasing number of owners are halting or canceling projects. This may be to help “enforce social distancing and other efforts to slow down the spread of the virus, or because demand for the project has dried up, at least temporarily, or because the owner’s financial situation does not allow it to proceed,” says Ken Simonson, chief economist at the Associated General Contractors of America (AGC).^{xiii}

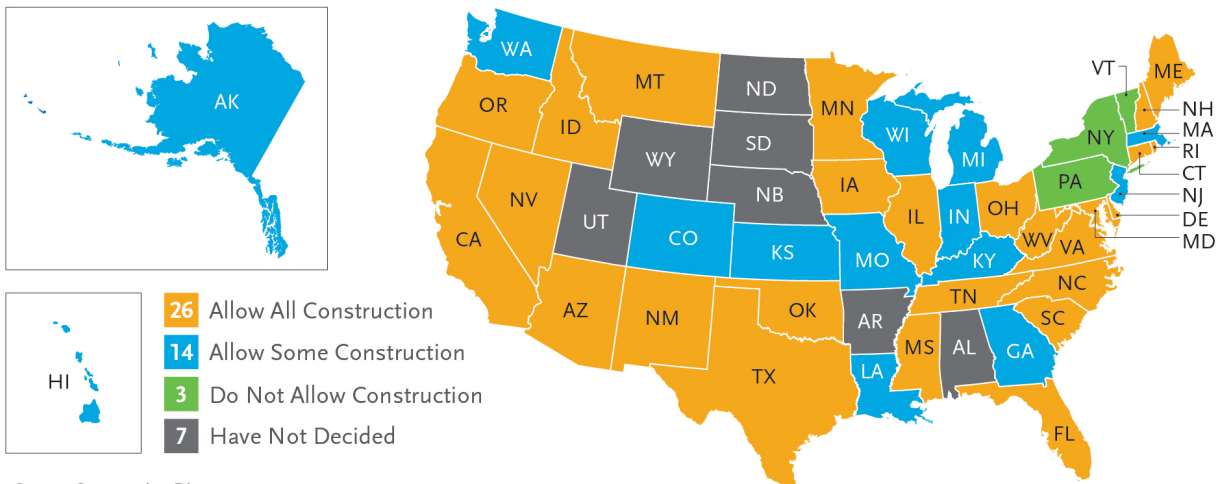
The state, county, and citywide orders enacted around the country have left construction trade companies confused; they sometimes believe they are non-essential and must halt work, which is not always true. In many cases, companies providing supplies or services to the construction industry are exempt from statewide shutdowns of non-essential businesses. Some areas of the country have shut down all but

essential construction work (such as infrastructure projects), while others have curbed specific types of construction (see map).

A shortage of specialty contractors (such as mechanical and electrical) could disrupt work because they are difficult to replace, and many states have rigid licensing laws. In other cases, subcontractors and suppliers have ceased operations if they cannot meet health guidelines, or subcontractors are proactively retreating from jobs they perceive as an unacceptable health risk.^{xiii} Transportation agencies have had mixed reactions to the COVID-19 outbreak:

- **Chicago’s Metra** has started several major construction projects to accelerate its 2020 construction to take advantage of service reductions due to the pandemic.^{xiv}
- **Seattle’s Sound Transit** has directed its contractors to suspend construction work, with limited exceptions, to support virus containment. Any continuing construction activities involve tasks considered to be critical or necessary to ensure safety or to avoid mobility, environmental, or other impacts.^{xv}

STATE GUIDANCE ON CONSTRUCTION PROJECTS

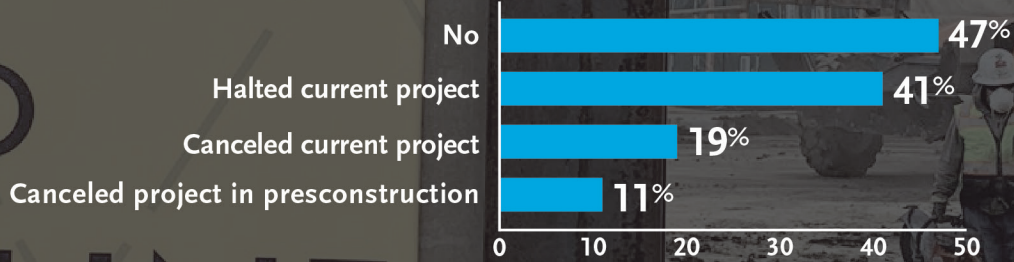


Source: Construction Dive

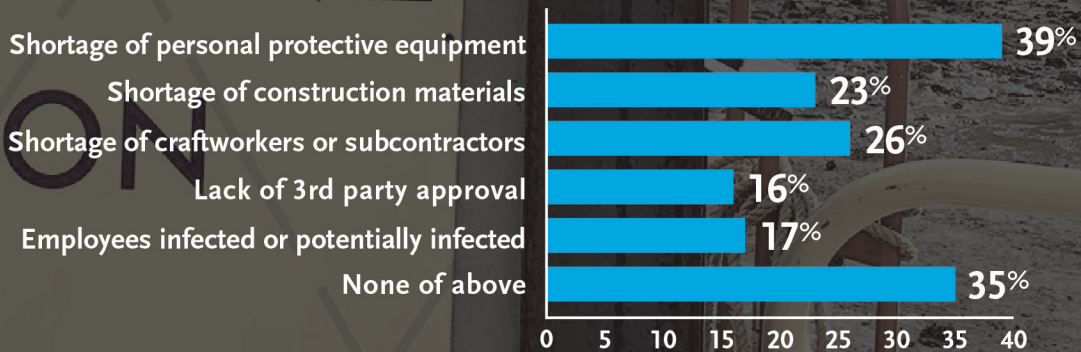
How has the coronavirus affected your work? *



Did an owner direct you to halt or cancel work on any current projects or ones expected to start in the next 30 days? **



Are you currently experiencing any project delays or disruptions due to the following? ***



Have any suppliers notified you or your subcontractors that their deliveries will be late or cancelled? ***



Source: * Construction Dive

*** Associated General Contractors of America (AGC)

Construction Outlook

Because the COVID-19 pandemic effects on the US is far from complete and no one can accurately predict its full impact, owners and contractors should be prepared for short-term labor shortages. With government-imposed preventative measures to reduce exposure to COVID-19 or other measures in cases of actual infections, it is fair to expect that contractors could experience significant effects on productivity, costs, and their ability to meet completion deadlines.

The economic slowdown in response to the pandemic has reduced prices for many construction materials. Material pricing is expected to fluctuate over the coming months and years as it is driven by supply and demand. With China's economy restarting and production approaching normal capacity, materials and products are starting to be provided at a more reasonable cost.^{xvi}

Owners may table current projects until the uncertainty passes. While the national economy is entering a recession, construction in the non-residential market typically lags the overall economy by 12 to 18 months, according to Anirban Basu, Chief Economist for the Associated Builders and Contractors (ABC).^{xvii} This means that most contractors who work for Metro can expect far more difficult circumstances next year because bids may be delayed, or even canceled, as owners reassess the pandemic's economic impact on new construction. Some new projects in sectors responding to the crisis, such as healthcare and manufacturing, will drive new constructions starts.

Challenges

- ✓ Reduction in number of construction firms due to reduced work and cash flow
- ✓ Productivity may slow and delay projects
- ✓ Supply chain issues
- ✓ Contractors across the country have started to issue notices of potential delays
- ✓ Revenue decline from toll roads and the Highway Trust Fund will dramatically decrease construction funding

Opportunities

- ✓ Labor pool increased
- ✓ Contractors are more available (will look to owners with locally generated revenues)
- ✓ Slow rebound in many commodity prices
- ✓ Innovation related to productivity and efficiency resulting from remote working

What Does this Mean for Metro?

The COVID-19 pandemic is a rapidly evolving event with elusive variables and unforeseen consequences. Society's response has been similar. Forecasting pandemic impacts and duration with any certainty is a largely futile prospect.

However, the past few weeks provide some insight to actual shorter-term consequences and data, along with several impacts and opportunities directly related to Metro's construction market situation. Metro can prepare for, or proactively manage, several potential actions that support progress toward strategic outcomes.

What Is Happening Now?

Revenue decline. Metro's ridership and sales tax revenue has plummeted, leaving the agency in uncharted territory. Sales tax generates roughly half of Metro's annual budget, and Metro could potentially lose between \$650 million and \$750 million in sales tax revenue by this fiscal year's end. Although fare collection is not Metro's primary significant source of revenue, it funds a third of operational costs for bus service and helps keep the system open longer than it would be otherwise. With the public "Safer at Home" order and non-essential businesses closed, people are traveling and spending dramatically less, and ridership is declining.

Productivity. Los Angeles County has been hit the hardest by the COVID-19 pandemic in California. Metro and contractors are likely to see disruptions, schedule delays, and productivity decreases on Metro projects as a consequence of canceled deliveries, lack of inspection approvals, and absent workers from social distancing and fear of infection on jobsites.

Owner of choice. Although revenue is down, Metro will continue to generate revenue and is likely to receive funding from future stimulus and infrastructure investments. Some state departments of transportation rely heavily on the Highway Trust Fund and toll road revenue to fund construction projects, and those agencies will likely cancel or delay future construction projects. As work dries up, contractors will look to owners with local, steady revenue sources, making Metro a top candidate for contractors to bid on future work.

Labor pool. The 2020 Construction Market Analysis anticipated a labor shortage that Metro will experience over the next 10 years while constructing its capital program. Now, the skyrocketing number of unemployment claims since the virus outbreak is likely to dramatically increase the labor pool. Metro should implement an aggressive outreach program about the jobs needed to support its construction program, and should continue supporting training programs helping workers to enter the construction market.

Construction acceleration. During this period of light traffic and temporary business closures resulting from the "Safer at Home" order, Metro is adjusting work schedules to allow contractors to work during daytime hours on weekdays. This adjustment is reducing community impact from nighttime and weekend work that otherwise would be required, and accelerating construction schedule. Specifically, this benefits Regional Connector and Purple Line extension construction.

Business closures and light traffic gave Metro the opportunity to close corridors and accelerate construction, which will accelerate economic recovery.

How Can Metro Respond?

The 2020 Construction Market Analysis provided recommendations based on three strategic plan outcomes to better position Metro in pre-pandemic conditions:

- Create a stronger, more resilient organization
- Be the owner of choice
- Increase the labor pool

Now, in a dramatically different economic scenario, these strategic outcomes are still valid. Furthermore, several immediate efforts previously identified still support these strategic outcomes in response to the COVID-19 pandemic. Further actions aligned to these outcomes should be considered in preparation for any additional potential impacts resulting from the pandemic and its effects. These potential actions are organized below based on the three strategic outcomes.

POTENTIAL ACTIONS ALIGNING WITH METRO'S STRATEGIC OUTCOMES

Create a Stronger, More Resilient Organization

- ✓ Review invoices to make sure that payments are made for work completed and financing requirements and notices are met as cashflow for contractors become more difficult.
- ✓ Understand contract provisions and insurance requirements that would allow for work to be suspended or terminated (prepare for force majeure clauses).
- ✓ Evaluate potential jobsite efficiencies to be realized by remote workers.
- ✓ Conduct supply chain audits and identify vulnerabilities.

Be the Owner of Choice

- ✓ Continue to move projects forward as much as possible following the latest health and safety procedures to prevent the exposure and spread of COVID-19.
- ✓ Conduct bid walks and pre-bid meetings via videoconferencing to not delay procurements.

Increase the Labor Pool

- ✓ Implement an aggressive outreach program to the recently unemployed and connect them with construction training and apprenticeship programs.
- ✓ Coordinate with workforce programs to develop virtual training programs and continue building a pipeline of qualified workers as the number of Metro projects under construction increases over the next few years.

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**Board Report**

File #: 2020-0349, **File Type:** Informational Report**Agenda Number:** 33.

**PLANNING AND PROGRAMMING COMMITTEE
MAY 20, 2020****SUBJECT: MOBILITY ON DEMAND PILOT PROJECT****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE Mobility on Demand Pilot Project report.

ISSUE

In January of this year, Metro's Board of Directors accepted a contract extension to Metro's contract with Via, which is the current contractor providing service for the Mobility on Demand program. At that time, a motion was approved requesting a report back on the costs and benefits of the service.

After the January contract extension, ridership on the service continued to grow rapidly through the month of February and the beginning of March. At the end of March and April, the Covid crisis resulted in decreased Via ridership, by about 50%. During the same period, Metro bus ridership dropped about 60% and Metro rail ridership dropped about 75%. Metro has since worked with Via to make adjustments the service to meet shifting transportation demand for essential destinations, as well as use of available service capacity to serve related travel needs.

BACKGROUND

In January of 2019, Metro, in partnership with Via (Nomad Transit) launched a first last mile, on-demand partnership that was funded by a Federal Transit Administration (FTA) Grant for Mobility on Demand (MOD). The first year of the MOD Pilot increased mobility and decreased travel times for thousands of riders. The project met all Key Performance Indicators (KPIs), exceeded several KPIs and spent only 80% of the contracted budget amount. The Contract was extended in January of 2020 for six months, with an option to extend for an additional six months until January of 2021. To capture additional travel demand within the approved budget, the contract extension also expanded the service hours from 6AM-8PM on weekdays to 6AM-12AM on weekdays and 8AM-10PM on weekends, to be implemented in phases. In March of 2020, the outbreak of Covid-19 decreased ridership in the MOD Pilot, though MOD ridership decreased less than traditional Metro services and transit services world-wide.

DISCUSSION

Covid Response Service

Staff worked with Via to make three temporary emergency adjustments, which began in late March, just after the Safer-at-Home orders were announced. Via 1) suspended shared rides in support of social distancing; 2) began offering point-to-point services to accommodate essential trips beyond existing transit station destinations; and 3) added new essential destinations beyond zone boundaries.

These changes were implemented swiftly due to the flexibility of the contract and the private sector partner, and now allow essential trips to be made safely, predictably, affordably, and flexibly by folks without access to private options or frequent transit. Via communicated these updates to riders through emails and mobile push notifications, and Metro published an article to The Source.

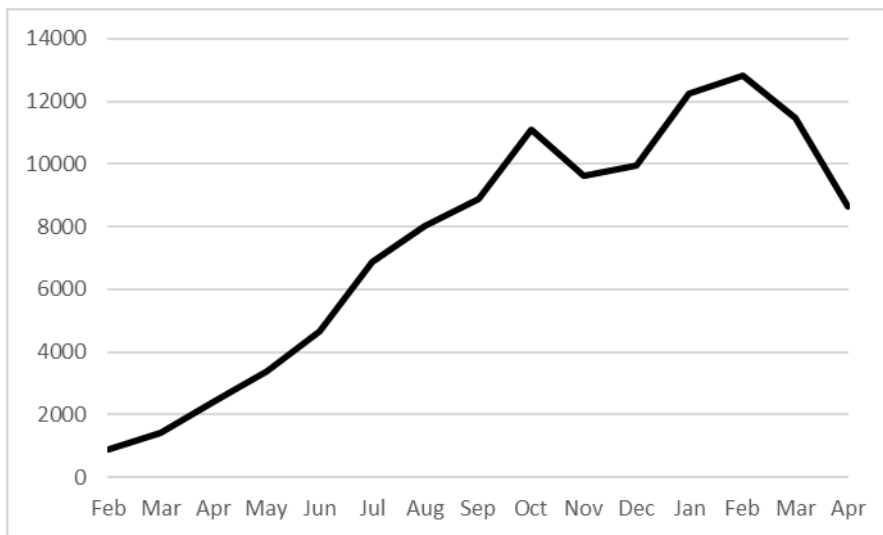
The discontinuation of shared rides is an industry standard for compliance with social distancing orders. Drivers were instructed to follow all guidance issued by the Centers for Disease Control and wipe down all vehicle surfaces before driving, and as often as possible during shifts. Drivers and riders are both required to wear masks. Feedback from riders has confirmed that drivers are wearing face masks, adhering to cleaning protocols, and being cognizant and courteous about the situation.

In addition, in late April, Via began a small-scale emergency food delivery service in response to the Covid-19 crisis, in partnership with two local organizations: First Five LA and Para Los Ninos. First Five LA is a state-funded early childhood education agency for the County, and Para Los Ninos is one of the partner non-profits they work with. In partnership with these organizations, Via is delivering food bank donations and household essentials to families with young children who are unable to go to the store safely and cannot afford to order traditional home delivery groceries. The service is operating within the original Mobility on Demand budget, utilizing the excess supply of drivers created by the drop in ridership. The first deliveries were made in the First Five "Metro LA" region which surrounds the intersection of the 10 and 110 freeways. Para Los Ninos is continuing to identify families who need meal deliveries with the potential to scale up deliveries to meet the identified demand. Metro, Via, and First Five LA will continue to work with additional non-profits to assess the need for this service in the First 5 LA Best Start regions across the County, which include areas in the Antelope Valley, South Los Angeles, East Los Angeles, and the San Fernando Valley.

Ridership Trends

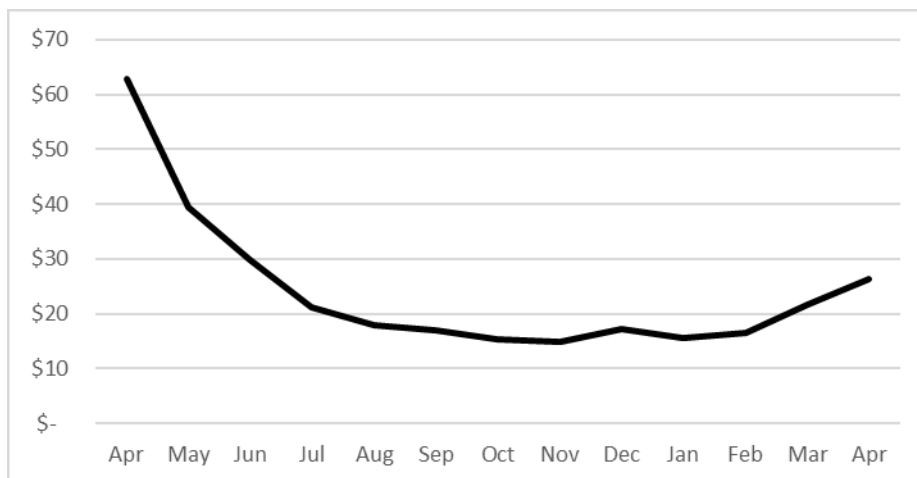
Ridership dipped during the winter holidays but was rising again afterwards. Ridership on MOD continued to grow up until Safer-at-Home orders were put in place, when ridership dropped by about 50% per week, significantly less than traditional Metro service ridership which decreased by about 60% and 75% for bus and rail respectively.

Rides per Month



Following this trend, the subsidy per ride is inversely related to the ridership and decreased steadily until ridership fell with shelter in place orders.

Subsidy per Ride by Month



Evening service began in late March, and weekend service began in early April. These services started after Safer-at-Home orders were put in place. It is too early to draw conclusions regarding evening and weekend ridership, but staff will track it to assess service efficacy and adjust hours as needed.

In addition, project researchers at UCLA, University of Oregon and the Eno Center for Transportation have released draft research findings, a summary of which is included in Attachment A.

Costs

Drivers who use their personal vehicles are paid up to \$21 per hour depending on if they earn a bonus for completing their shift. If they are renting a WAV vehicle to provide service to people who use mobility devices, they are paid up to \$35 to cover the cost of the rental and their hourly rate. Because of the legal ambiguity that currently surrounds independent contractor requirements, drivers are remaining independent contractors at this time, until such matters are resolved. If the service is shifted to an employee driver model, staff estimates that it would increase subsidy rates by two to six dollars per ride, depending on the efficiency of the system. Metro staff costs are minimal. The Board approved a six-month contract extension for up to \$ \$2,747,293, but the contract will only invoice approximately \$1,400,000 by the end of the six-month term. These savings are due to the decreased ridership from Covid-19 and the continuation of the independent contractor model. The Board also approved an optional extension of the project into January for up to \$2,747,293 and current projections show that approximately \$2,000,000 of that will be invoiced for the second six months. Staff is submitting much of these invoiced expenses for reimbursement from the CARES Act federal funding and from FEMA emergency relief funding.

HIGH CAPACITY FIXED ROUTE SERVICES	
Highest Performing Bus (754)	\$1.26*
Highest 20% of Metro Bus	\$2.80*
Light Rail	\$3.54*
Average Bus	\$4.16*
Heavy Rail	\$5.41*

FIRST LAST MILE / FLEXIBLE / LOW CAPACITY SERVICES	
Bike Share	\$8*
Lowest 20% of Metro Bus	\$9.50*
Park & Ride	\$12
MOD	~\$17
Lowest Performing Bus (607)	\$21*
Access Services	\$39

*Does not include capital costs

Metro staff time costs were approximately \$115,000 over the course of the last year, or about \$10,000 per month. In the months preceding the Covid crisis, this resulted in a cost per ride of about \$.80 per ride, which would bring the fully loaded cost per ride to approximately \$18. This is inclusive of all capital costs, whereas most other compared subsidies do not.

SUMMARY COSTS
\$2.5 Million total contract costs so far
\$240,000 per month (current invoicing)
\$17 per ride (pre-covid subsidy)
CONTRACT COST ALLOCATION

Operations	66%
Admin Overhead*	21%
Insurance	13%

*The administrative costs cited are made up of the consultants cost for data and web hosting, co-working space for administrative staff, administrative staff time, on-going project management, and marketing.

Benefits

The benefits to the MOD service are many. It can be difficult to quantify them or to compare them to traditional transit services, however, key benefit calculations and qualitative analysis is described below.

Each MOD ride

- 20 minutes of saved time for a bus rider (33.4% of rides)
- 15 minutes of saved time for a walker (10.6% of rides)
- \$39 of saved Access Services costs (7.7% of rides)
- An avoided SOV trip (22.5% of rides)
- An avoided TNC trip (17.3% of rides)
- A new transit ride (6.7% of rides)

Project Total so far (115K rides)

- 46,000 SOV or TNC trips avoided
- 12,000 hours saved for bus riders
- 3,000 hours saved by walkers and wheelchair riders
- 7,000 new rides to transit
- \$170,000 potential saved Access Service costs
- Tens of thousands more residents with access to high quality transit

Covid Crisis Benefits

- Reliable, socially distanced transportation
- Invaluable flexibility in unprecedented times
- Applying for CARES and FEMA reimbursement
- Hundreds of meals to be delivered to vulnerable families

Flexibility

The Covid crisis has brought unprecedented need to the communities Metro serves. Many individuals and families are unable to travel to the store because they are ill or would risk exposing vulnerable family members to the virus. Metro partnered with First 5 LA and their partner organizations to deliver food and diaper donations those in our communities who are most in need. This pilot food delivery service is currently delivering about 20 grocery deliveries per week and has potential to scale up to around 500 deliveries per week. The pilot was developed, designed and implemented in about three weeks, highlights the benefits of the flexibility inherent in both the on-demand service and the private partnership model.

Access Services Cost Savings

Access Services has been an integral partner in the project and their targeted marketing has significantly increased the use of WAV rides in the MOD pilot, which made up about 1% of total rides. While MOD rides cost around \$17, these rides may otherwise have been made with Access Services, which costs an average of \$39 per ride and must be requested a day in advance. MOD WAV rides may be requested in real time. Shifting Access Services rides to MOD rides reduces costs per ride significantly, and more importantly, allows Access customers to request their rides without an advance reservation. The demand responsive nature of MOD allows much more flexibility to Access customers than they have had in the past. This day-of, on-demand service has the potential to attract many more Access Services riders if the pilot continues to operate in the future.

Equity

MOD service has been operational in low income areas and priced as a free transfer to or from Metro services. Riders do not need a bank account or a cell phone to access the service. In El Monte specifically, riders were likely to be low income (\$50K median income), likely to be non-white (87% non-white), but likely to have a car available for the trip (63% with car access). In the Compton area, there was not sufficient survey response to understand the riders as specifically, but those who did answer the survey reported even lower households earnings.

Safety

On demand service can reduce wait times and increase predictability when fixed route service runs less frequently, thus providing a safer and more comfortable customer experience with less potential exposure to overcrowding at stops, stations, and on vehicles.

Service Quality and Customer Experience

MOD service is both on-demand and variable to accommodate scattered origins and destinations. The result is reduced walk time, reduced travel time, accommodation of additional geographies, and more predictable wait times.

Rider Retention

In the context of falling transit ridership, MOD can bring transit service closer to more residents and offer significantly enhanced customer experience which may be necessary to enforce social distancing measures and to make patrons feel safe and comfortable riding Metro services. As Metro rebuilds its ridership, MOD can play an important role in filling in service gaps and providing flexibility in times of uncertainty.

DETERMINATION OF SAFETY IMPACT

The MOD pilot project will not have any adverse safety impacts on Metro employees or patrons. It may have a positive safety benefit by reducing providing social distancing options for transit users and providing essential trips and essential deliveries to patrons in a time of need.

FINANCIAL IMPACT

Impact to Budget

There is no impact to the budget as funds are already programed for this use and the program is

costing less money than was budgeted.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Staff's recommendation supports the following goals from Metro's Strategic Plan:

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

The project increases access to Metro fixed route services with a platform that provides excellent customer experience and shortens travel times for riders who must transfer.

Goal 2: Deliver outstanding trip experiences for all users of the transportation system.

The project provides seamless journeys and expands access to on-demand transportation to riders who use wheelchairs, do not have smart phones, or do not have the financial means to use private services.

Equity Platform Framework

The project is addressing inequity in new mobility options by providing access to people who would not otherwise be able to afford on-demand rideshare platforms like Uber and Lyft. The project allows people without smartphones or bank account, and people who use wheelchairs to experience the benefits of on-demand mobility and seamless access to Metro fixed route offerings. MOD is offered in low income areas to encourage use by low income riders and will be marketed in this way as well.

ALTERNATIVES CONSIDERED

The Board may choose not to receive and file the report. That is not recommended.

NEXT STEPS

Metro staff will continue to analyze Via service during the Covid crisis and is planning to exercise the option to extend the current contract, which expires at the end of July, for an additional six months. The service will continue to operate and provide transportation for essential workers and for essential trips. Metro staff is continuing to analyze the service and ridership levels and make adjustments as needed in order to ensure that the service continues to meet the needs of patrons during this unpredictable time. Staff will also explore options for continued or similar services beyond the Via contract extension.

ATTACHMENTS

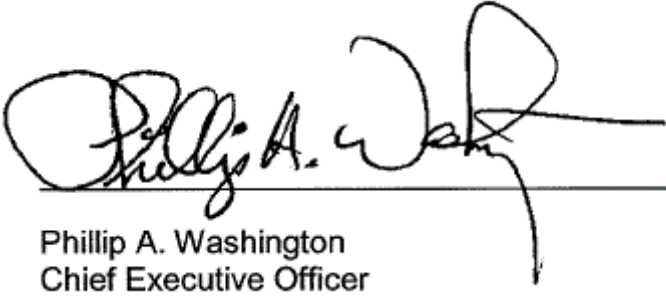
Attachment A - Summary of Research Findings

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Phillip A. Washington
Chief Executive Officer

ATTACHMENT A – SUMMARY OF RESEARCH FINDINGS

Metro’s research partners at the Eno Center for Transportation, UCLA and University of Oregon have analyzed data from the first year of service and found the following results.

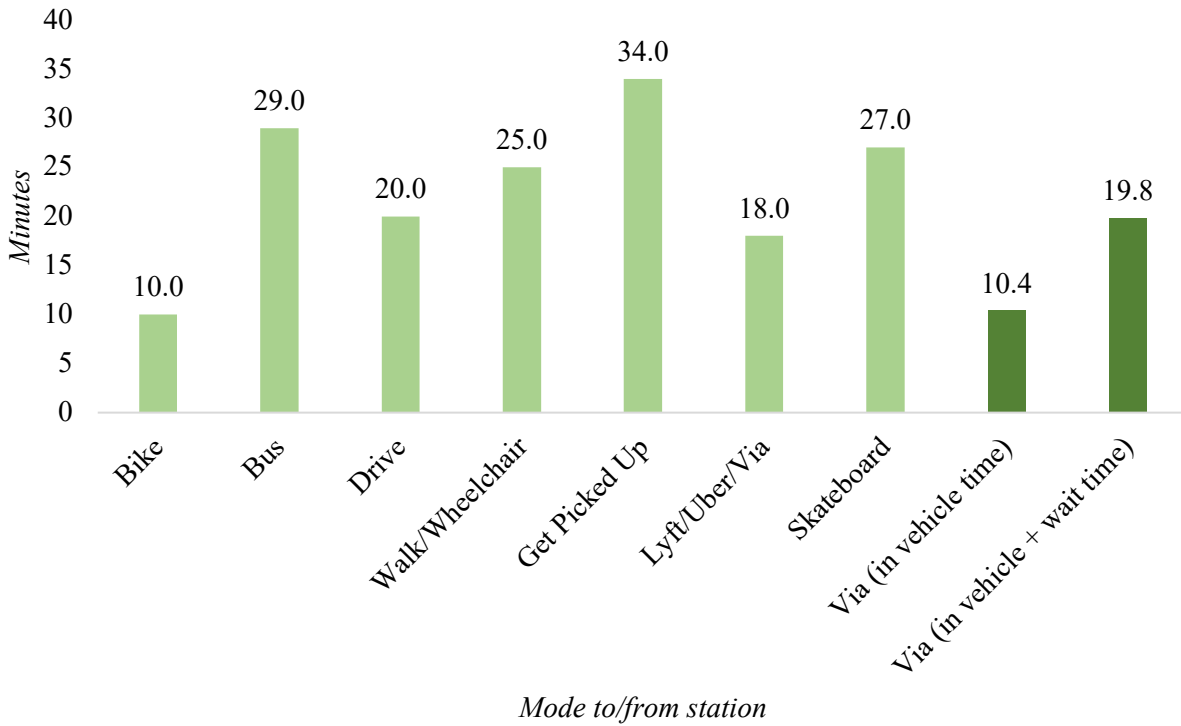
Before the service began, Metro conducted an in-person intercept administered in the three service zones in January 2019. These results were compared with a Via survey administered online between November 2019 and February 2020. The researchers note that the Via rider survey had a much smaller sample size than the other two surveys, so it likely contains more error.

Compared to intercepted Metro riders, a higher share of Via survey respondents traveled to Metro stations on Lyft or Uber, were dropped off or picked up, or did not use transit at all.

(Previous) First Last Mile Mode

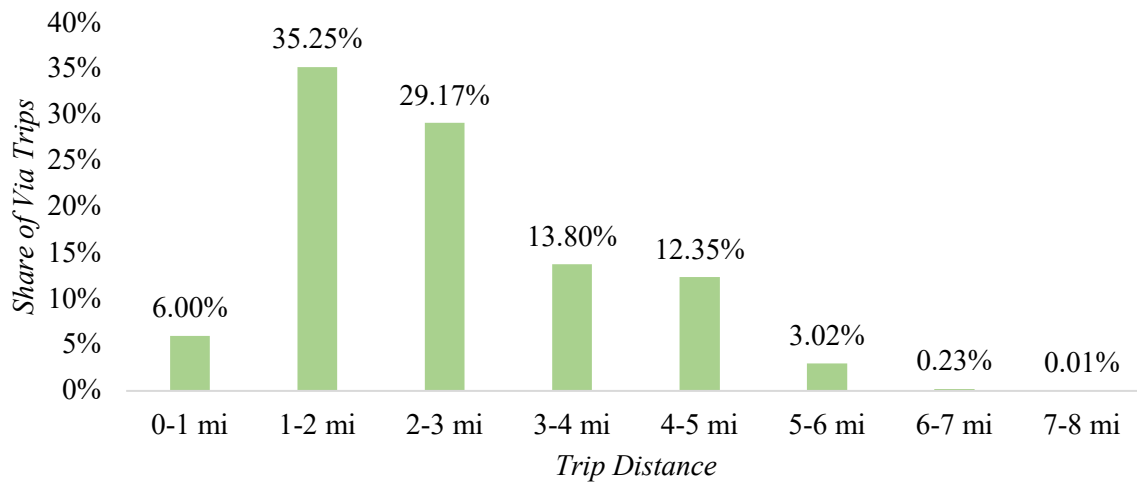
	Via	Metro Intercept
Drive	16.8%	17.5%
Dropped off/picked up	5.7%	0.9%
Lyft/Uber	17.3%	3.2%
Bus	33.4%	59.0%
Bike	2.7%	1.9%
Skateboard	0.5%	0.5%
Walk/wheelchair	10.6%	17.0%
Other	6.2%	0.0%
Did not use station	6.7%	0.0%
Total	100.0%	100.0%

First Last Mile Travel Times



Length of Via Trips

According to the survey respondents, using Via created significant time savings especially when compared to getting picked up, riding the bus, walking or skateboarding.



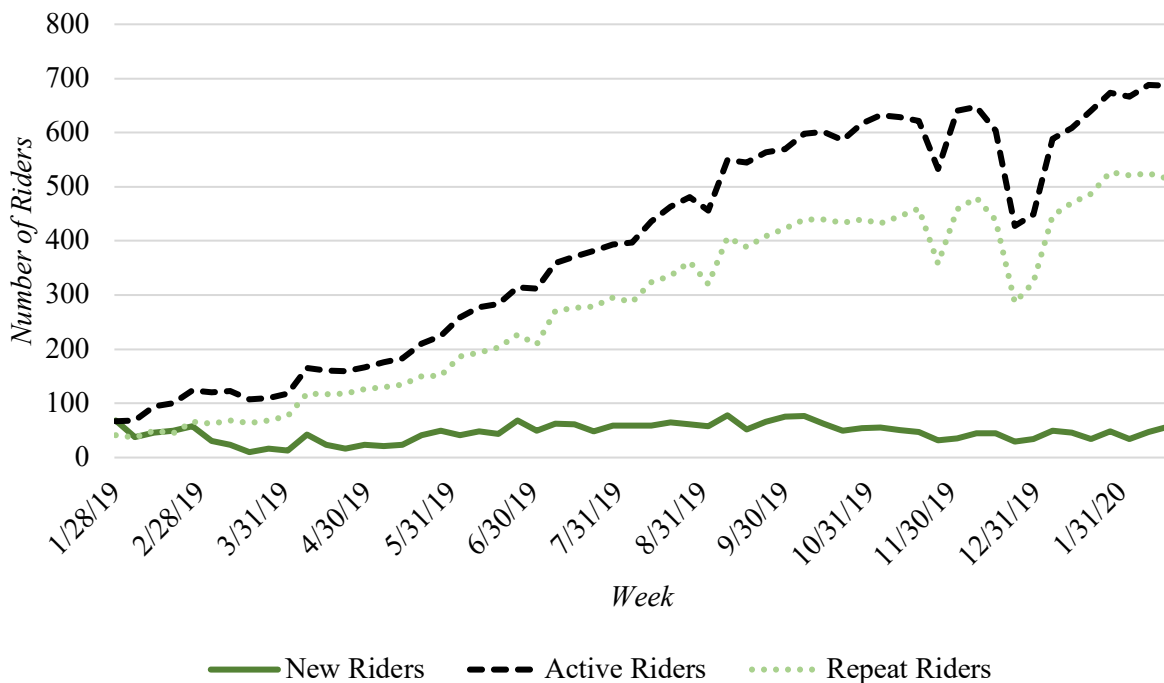
Share of Riders by Trip Request Frequency

	Number of riders	Percentage of riders
Once	1,772	40.3%
Less than once per month ¹	1,415	32.2%
1-3 times per month ¹	658	15.0%
1+ trip per week ¹	553	12.6%
Total	4,398	100.0%

¹Excludes those who took only one trip between January 2019 to February 2020.

Between January 2019 and February 2020, 4,398 unique users used the Via MOD pilot program. Sixty percent of these riders requested Via at least twice. While some riders were avid users, most were occasional. Forty percent of riders requested Via only once, while another third (32.2%) of riders requested Via less than once per month. Just 12.6% of riders requested Via once a week or more. The number of new riders was steady, with about 46 new riders signing up for Via each week.

Rider Trends Over Time



Rider Characteristics on Via compared with pre-pilot intercept survey

	Via User	Intercept Survey
Race/Ethnicity		
Native American	0.9%	0.9%
Asian/Pacific Islander	21.9%	9.3%
Black	6.4%	15.3%

Latino	26.8%	39.0%
White	29.2%	18.0%
Other	8.2%	4.7%
Two or more races	6.6%	12.8%
Technology & Banking Access		
Smartphone	94.7%	71.0%
Cellphone	4.9%	24.7%
Neither	0.4%	4.3%
Checking Account (yes)	94.0%	75.9%
Car available to make this trip (yes)	50.0%	47.6%
Gender		
Male	53.8%	53.1%
Female	43.5%	45.8%
Non-Binary	2.7%	1.1%
Age		
<18	0.4%	2.9%
18-24	17.0%	17.9%
25-34	36.8%	25.8%
35-49	28.0%	27.0%
50-64	14.1%	20.4%
65+	3.6%	6.0%
Income		
<\$5,000	5.6%	11.4%
\$5,000-9,999	2.4%	3.4%
\$10,000-14,999	7.1%	4.2%
\$15,000-19,999	4.4%	10.6%
\$20,000-24,999	8.6%	9.5%
\$25,000-34,999	8.0%	7.6%
\$35,000-49,999	10.7%	12.5%
\$50,000-99,999	28.1%	24.6%
\$100,000+	25.1%	16.3%
Disability (yes)	7.7%	4.4%

The researchers note that the Via rider survey had a much smaller sample size than the intercept surveys, so it likely contains more error. However compared to intercepted Metro riders, a higher share of Via survey respondents identified as white, were younger, had higher household incomes, and a larger share owned a smartphone. It is not known if this difference represents a true difference in users of the service, or a differential willingness to answer the Via survey. A higher share of Via survey respondents reported having a temporary or permanent disability compared to intercepted Metro users (7.7% vs 4.4%). **Error! Reference source not found.** shows the breakdown of disability types among Via respondents; of respondents who reported

a disability, about half ($n=8$) previously rode the bus to the station (we note the small sample size here, and advise interpreting data about this subgroup with caution).



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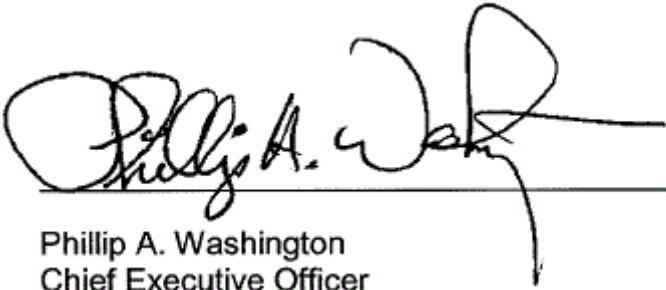
Agenda Number: 34.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
MAY 21, 2020**

SUBJECT: ORAL REPORT ON COVID-19 SERVICE UPDATE

RECOMMENDATION

RECEIVE oral report on COVID-19 Service Update.



Phillip A. Washington
Chief Executive Officer

COO Oral Report COVID-19 - Service & Recovery Plan Update



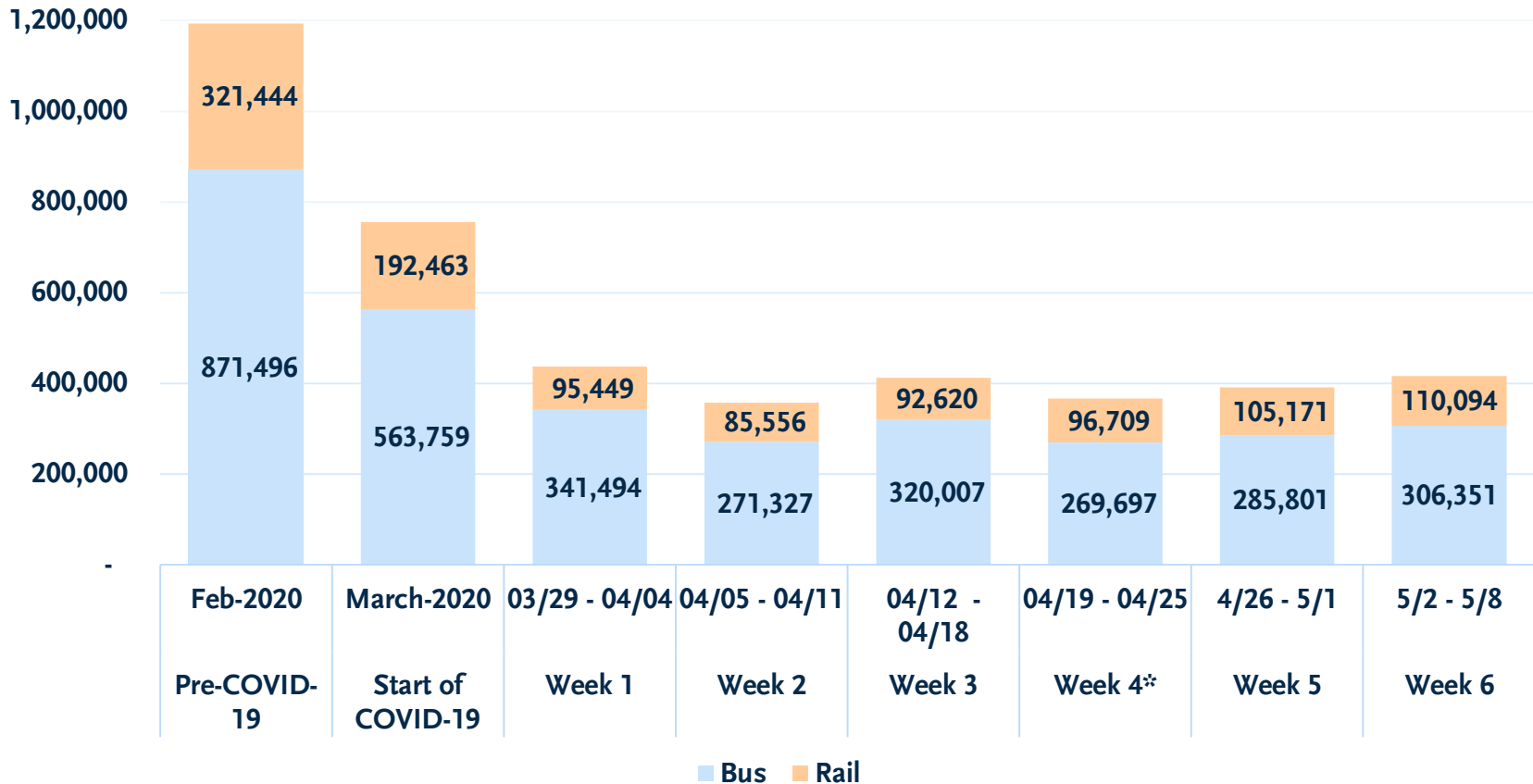
Metro

Operations, Safety & Customer Experience Committee

May 21, 2020

Weekly Ridership Update (Late March – Early May)

SYSTEMWIDE AVERAGE WEEKDAY RIDERSHIP



Ridership	Pre-COVID-19 Feb 2020	Start of COVID-19 March 2020	Week 1	Week 2	Week 3	Week 4*	Week 5	Week 6
TOTAL	1,192,940	756,222	436,943	356,883	412,627	366,406	390,972	416,446

*Deployed Enhanced-Sunday Schedule on 04/19/20

Implementation of Enhanced-Sunday Service Plan

Implemented on Sunday, April 19, 2020

- **Weekday Service:** Sunday bus service plus all Rapid and most Local/Express service that normally does not run on Sunday, with additional trips to address early morning weekday demand and capacity for social distancing
- All trains run every 12 minutes between 6 a.m. and 6 p.m. and every 20 minutes at other times with last trains leaving terminal stations at midnight
- **Weekend Service:** Sunday service for bus and rail lines
- As of Monday, May 11, 2020, Operations added trip(s) on 16 lines (11 directly operated, 5 contracted) and articulated buses on 6 other lines
- Service and customer feedback is actively being monitored so adjustments can be made

Completed B Line (Red) Partial Station Closures – As of Tuesday, April 28, 2020

1. Union Station (West Entrance)
2. Civic Center/Grand Park (1st St Entrance)
3. Pershing Square (4th St N/W Entrance)
4. 7th St/Metro Center (Hope St Entrance)
5. Westlake/MacArthur Park (North Entrance)
6. Vermont/Santa Monica (City College Entrance)
7. Universal City/Studio City (Park & Ride/CityWalk Entrance)

Workforce Impacts, Corporate Safety & Mask Requirement

Workforce Update As of May 14, 2020

- **FFCRA Leaves:** Based on last pay period (4/19 – 5/2) data, COVID-19 related absenteeism continues to affect about 15.5% of the workforce
- **Confirmed Cases:** 67 (36 employees, 27 contractors, 4 vendors)
- **Confirmed Deaths:** 1 (0 employees, 1 contractor, 0 vendors)
- **Recovered Cases:** 9 (9 employee, 0 contractors, 0 vendors)

Mandatory Mask Requirement, Employee Symptom Self-Check & Social Distancing Protocol

- As of Monday, May 11, 2020, Metro is requiring customers to wear masks/face coverings when riding Metro
- Field observations show that about 90% of customers are wearing masks
- All Operations personnel are required to:
 1. Conduct Employee Symptom Self-Checks prior to entering work locations
 2. Wear masks/face coverings and/or required PPE (N95 respirator masks, safety goggles, etc.)
 3. Maintain physical distancing to the extent practical when performing their job functions
 4. Utilize barriers and rear-door boarding

Cleaning Regimes & Consideration of Additional Cleaning Activities

Increased Cleaning Regimes & Hand Sanitizer Dispensers

- Strengthened cleaning regimes in addition to regular cleaning activities on all vehicles, stations & terminals
- Focus cleaning efforts on high touchpoint areas, and at operating Divisions & locations
- Cleaning vehicles multiple times a day, prior to the start of and at the end of revenue service
- Continued use of Corporate Safety approved disinfectants & cleaning materials

Additional Cleaning Activities

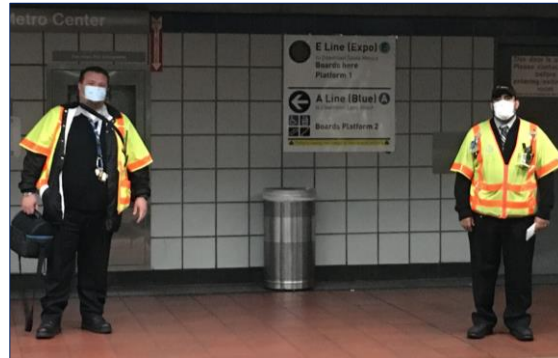
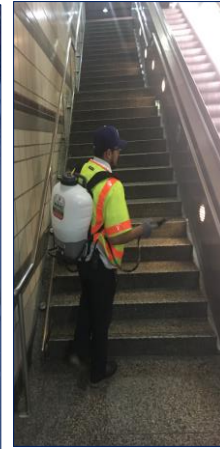
- UV Lights - Operations, General Services and Corporate Safety are exploring the pilot use of UV lights on Metro vehicles and stations
- End-of-Line Terminal Cleaning - Operations cleaning and sanitation during revenue service

PPE Update

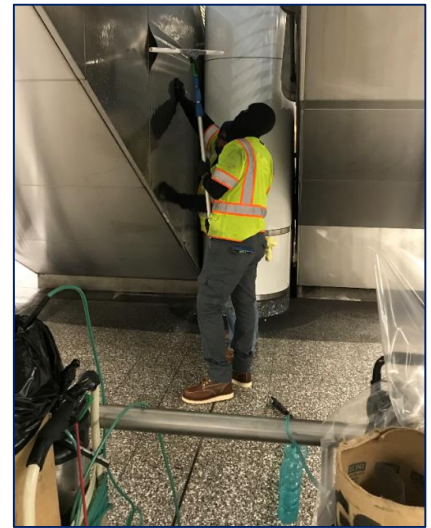
- Running total to date: over 770,000 pairs of gloves, over 623,000 masks, and over 45,000 hand sanitizers have been distributed to field locations
- Continue to monitor all PPE usage and order as necessary



Highlight - Operations Frontline Employees



Highlight - Operations Contractors



Climbing Back from a Crisis

COVID-19
Transit Service
Recovery Plan Framework

Recovery Plan Objectives

1

Build up service levels based on sustainable resources & demand to support recovery

2

Follow principles established by NextGen

3

Integrate with capital projects under construction

4

Incorporate post-COVID-19 standards (e.g. social distancing & cleanliness regimes)

5

Nimble to easily adjust to changing trends in travel & economic indicators



Social Distancing Impacts

Current Impacts of Social Distancing

Current COVID-19 max load standards

- 40' bus from 52 to 15 (71% reduction)
- 60' bus from 74 to 30 (59% reduction)
- LRT car from 133 to 35 (74% reduction)
- HRT car from 124 to 25 (80% reduction)

Bus service adds required due to overloads

- 15/30 standard/artic load standard
 - 12% more trips needed
 - 9,920 RSH/wk (\$51.6M annually)
- 20/35 standard/artic load standard
 - 4% more trips needed
 - 3,313 RSH/wk (\$17.2M annually)

Program to Safely Reduce Social Distancing

Reduce demand

- Necessary trips only
- Transport not homeless housing

Spread Loads

- Travel shoulders of peak if can
- Telecommute/staggered hours

Customer Code of Conduct

- Self discipline for mask wearing
- Everyone must practice good hygiene

New Cleaning Regimes

- End of line bus/rail car cleaning
- Increase rail station/bus terminal cleaning

New technology

- UV filters

Marketing campaign

- Advertise everything we do
- We're in this together help us make transit a safer & more comfortable trip

Protect Front Line Employees

- PPEs
- Manage emotions & anxieties

Revise load standard as parts of program are achieved

Bus Recovery Plan Phasing

(Draft)

**BASE
COVID-19 Enhanced
Sunday Service**

**PHASE 1
“Orders Begin
Lifting”**

**PHASE 2
“Schools Back
in Session”**

**PHASE 3
“Emerging
Markets”**

**PHASE 4
“NextGen’s
New Normal”**

Objective

Provide for essential travel only

Proactively establish frequent core network for first wave of non-essential workers/students returning

React to patterns of emerging econ. growth

Begin full buildout of sustainable NextGen Plan after PH and approval

Timing

April 2020

May - June 2020

July - Aug 2020

Sept - Nov 2020

Dec 2020 - Jan 2021

Est. Service Levels

5.0M

5.4M

5.8M

6.1M

6.5-7.0M

Service Adjustments

- Sunday Base
- Add weekday Locals, Rapids

- Reduce underutilized peak service
- Rightsize added weekday Rapids
- Add extra temp service
- Tier 1,2 – mod. increase in freq. (midday focus)
- Tier 3,4 & Weekends – maintain Sun service

- Tier 1,2 – Addt'l freq. (focus on off peak)
- Tier 3,4 – mod. increase in freq. (midday focus)
- School trippers
- Weekends – maintain Sun service

- Implement market specific service packages where & when data shows emerging markets

- Implement routing changes
- Consolidate Rapids / Locals
- Enhance Tier 1,2 & weekend freq. to NextGen levels adjusted to “New Normal”
- Eliminate underutilized service & implement MicroTransit



Board Report

File #: 2020-0380, **File Type:** Informational Report

Agenda Number: 34.1.

**REGULAR BOARD MEETING
MAY 28, 2020**

SUBJECT: COST CONTROL PERTAINING TO COVID-19

RECOMMENDATION

CONSIDER

Review and Approval of the CEO's call to action to control costs pertaining to COVID-19.

ATTACHMENTS:

Attachment A - CEO's Call to Action to Control Costs



Metro

Los Angeles County
Metropolitan Transportation Authority

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May 26, 2020

TO: BOARD OF DIRECTORS

FROM: PHILLIP A. WASHINGTON *PAW*
CHIEF EXECUTIVE OFFICER

SUBJECT: CEO'S CALL TO ACTION TO CONTROL COSTS

ISSUE

This memo outlines the CEO's Call to Action to immediately reduce costs as one of the mitigation strategies to help the agency financially manage through COVID-19. This is intended to be informational and will not require a Board Action, however, staff will consider any feedback as provided thereafter.

BACKGROUND

With the implementation of the "Safer at Home" order in March, nonessential businesses closed, and all residents were directed to leave their homes only for essential activities. Consumer spending has plummeted. The revenues received from local and state derived sales tax measures, majority of Metro's resources, are estimated to decline by a total of \$1.060 billion over FY20 adopted budget and FY21 pre-COVID levels.

Transit ridership, fare revenues, tolls, advertising and other system generated revenues have dropped dramatically while Metro has incurred increased costs in response to the coronavirus. Combined with sales tax, this results in an estimated \$1.8 billion total loss affecting each one of Metro's programs.

While the CARES Act will provide relief funding it is not enough to offset the total losses. The timing of the reimbursement is also uncertain and in the coming months, presents a risk to cashflow.

DISCUSSION

More than ever, Metro is enforcing strong fiscal discipline in order to maintain financial stability through the COVID-19 crisis and specifically to ensure we retain enough cash

to keep operating, hence the saying, “cash is king.” As a result, I have ordered a Call to Action to conserve resources and to immediately reduce expenses.

All projects and programs are grouped into two buckets. Bucket 1 is defined as “work to continue” and includes the following types of items:

- COVID-19 high priority tasks such as PPE and cleaning
- Operating and maintaining bus and rail service per Transit Operations Plan
- Major infrastructure projects and projects under executed contracts
- Legally required payments as contractually obligated
- Federal and State regulatory required activities

Bucket 2 is defined as all other projects and programs not listed under Bucket 1 and are being evaluated to be deferred three to six months with the objective of staying on the original Measure M schedule. This bucket includes projects that may have partial grant funding, projects in various phases of Planning, Construction and Operating, Measure M, Non-Measure M and Pillar projects. Attachment A provides a selective list of such projects for reference.

This project list is ever-changing and does not imply a permanent deferral of projects. Metro will be regularly assessing projects that have been temporarily deferred and continue to move projects expeditiously as the opportunities arise and as state or federal stimulus funds become available. There are many variables at play as we monitor the circumstances surrounding the revenue losses and the timing of reimbursement from the CARES Act. Over the next few months, staff will also be developing the FY21 Budget which will incorporate a thorough review and twelve-month outlook across all projects.

The projects that are proceeding also need to identify potential cost reductions to reduce cash needs and free up funds for other important needs at Metro. Consultants are an important part of our projects and a significant element of project costs.

Therefore, Metro has requested the following contributions from our consultants:

- A freeze on pay raises;
- An evaluation by Metro as to whether consultant staffing levels can be reduced;
- A voluntary reduction of 2% in the fee (profit)

Metro will be flexible in its approach and will only apply these measures temporarily until the financial outlook improves. We recognize that this is an extraordinary request, however, these are extraordinary times and we are looking at all opportunities.

In addition to these measures, I have also instructed a freeze on all hiring of Metro employees at this time. Any changes will be managed on an individual basis in order to ensure proper cost savings from a labor perspective.

NEXT STEPS

Staff will be monitoring the agency's expenditures and report to the board regularly between now and September leading up to the FY21 budget proposal.

ATTACHMENTS

Attachment A – Bucket Project List

Bucket Project List

Bucket 1: Work to Continue

<i>Health and safety for customers and employees</i>
<ul style="list-style-type: none"> ▪ PPE ▪ Cleaning services ▪ Additional expenses directly related to COVID-19
<i>Operating and maintaining bus and rail services per Transit Operations Plan</i>
<i>Federal and State regulatory required activities</i>
<i>Legally required payments (contractual obligations)</i>
<ul style="list-style-type: none"> ▪ Debt service ▪ Subsidies ▪ Licenses, utilities, rental, etc.
<i>Major infrastructure and projects under executed contracts</i>
<ul style="list-style-type: none"> ▪ Airport Metro Connector ⁽¹⁾ ▪ Crenshaw/LAX ⁽¹⁾ ▪ Division 20 Portal Widening and Turnback ▪ Gold Line Foothill Extension ⁽¹⁾ ▪ I-5 North HOV (along SR-134 to Buena Vista area) ⁽¹⁾ ▪ I-5 South HOV (I-605 to Orange County line) ⁽¹⁾ ▪ Light Rail Vehicle Acquisition Program ▪ Link US (Phase 1 only) ▪ Metro Bus Fleet Replacement (incl. electrification for buses and infrastructure for Orange Line) ▪ Patsaouras Bus Station ▪ Purple Line Extension ⁽¹⁾ ▪ Regional Connector ⁽¹⁾ ▪ Soundwall Package 11 ⁽¹⁾ ▪ SR-138 Corridor project in construction ⁽¹⁾ ▪ Willowbrook/Rosa Parks Station Upgrade & Mezzanine

Bucket Project List

Bucket 2: Work Evaluated to Defer with the Objective of Staying on the Original Measure M Schedule (*selective list*)

<i>Metro Transit Expansion</i>
<ul style="list-style-type: none"> ▪ Arts District / 6th Street Station ▪ Center Street Facility / ESOC ▪ Countywide BRT Program (incl NSFV BRT, NoHo to Pasadena BRT) ⁽¹⁾ ▪ Crenshaw Northern Extension ⁽¹⁾ ▪ East San Fernando Valley LRT ⁽¹⁾ ▪ Eastside Extension Phase 2 ^{(1) (2)} ▪ Green Line to Torrance ^{(1) (2)} ▪ San Gabriel Valley Transit Feasibility Study ⁽¹⁾ ▪ Sepulveda Transit Corridor ^{(1) (2)} ▪ Vermont South Bay Feasibility Study ⁽¹⁾ ▪ West Santa Ana Branch ^{(1) (2)}
<i>Metro Transit Capital Improvement</i>
<ul style="list-style-type: none"> ▪ Bus and Rail Facilities SGR program - stations, vertical transportations, roofs, pavements, etc. ▪ Electrification of buses including infrastructure - Silver Line ▪ Enterprise Asset Management System ▪ Heavy rail vehicle acquisitions ▪ Light and heavy railcar modernization and overhaul programs ▪ Orange Line grade separation ⁽¹⁾ ▪ Rail and Bus Operations Center ▪ Rail system improvements, yards, cars ▪ Rio Hondo Confluence Station ▪ Rolling stock midlife and non-revenue equipment programs ▪ Wayside SGR program underway on Red and Green Lines - radio, signals, communications, track, special work, OCS, power and the like
<i>Regional Transit</i>
<ul style="list-style-type: none"> ▪ Antelope Valley Line Enhancements ▪ Doran Street ATP ▪ LAUS Esplanade / Forecourt ▪ McGinley to Roxford Double Track ▪ Union Station Master Plan (Phase 2)
<i>Highway / Street Improvements</i>
<ul style="list-style-type: none"> ▪ Adams Flyover ▪ Alameda Corridor East grade separation phase 2 ⁽¹⁾ ▪ Centinela grade separation ▪ Countywide Soundwall Noise Studies ⁽¹⁾ ▪ Eastside Light Rail Access ⁽¹⁾ ▪ First / Last Mile (PLE and others) ⁽¹⁾ ▪ I-105 ExpressLanes ⁽¹⁾ ▪ I-210 Barriers

Bucket 2: Work Evaluated to Defer with the Objective of Staying on the Original Measure M Schedule *cont. (selective list)*

- I-5 Capacity Enhancements (SR14 to Parker Road) ⁽¹⁾
- I-5 Corridor Improvement I-605 to I-710 ⁽¹⁾
- I-605 Hotspots (incl SR-91 interchange) ⁽¹⁾
- I-710 South Corridor Project ⁽¹⁾
- L.A. River (Bike) Path ⁽¹⁾
- La Canada Soundwalls
- Rail to Rail ATP
- Rail to River ATP
- Rosecrans/Marquardt Grade Separation ⁽¹⁾
- Soundwall Packages 12, 13, and 14 ⁽¹⁾
- South Bay Highway Operational Improvements ⁽¹⁾
- SR-138 new project initiation documents ⁽¹⁾
- SR-57 / SR-60 Interchange Improvements ⁽¹⁾
- SR-71 GAP - Mission Blvd to San Bernardino County Line ⁽¹⁾

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project



Board Report

File #: 2020-0325, File Type: Policy

Agenda Number: 39.

REGULAR BOARD MEETING MAY 28, 2020

SUBJECT: CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY (CARES) ACT FUNDING

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING the allocation of CARES Act funding received by Los Angeles County as described in Attachment A.
- B. APPROVING fund exchanges of Federal CARES Act funding, as appropriate, with other local funding sources in order to provide administrative efficiencies, optimize and accelerate the distribution of resources.
- C. AUTHORIZING the Chief Executive Officer to negotiate and execute all necessary agreements to implement the recommended support of transit programs countywide.

ISSUE

Los Angeles County and the world are facing an unprecedented challenge as we adapt to the new limitations on our daily lives due to the COVID-19 pandemic. In response to the financial shortfalls in nearly every sector of the American economy, Congress approved and signed into law the CARES Act on March 27, 2020.

The CARES Act delivers COVID-19 relief funds to a wide range of American industries to provide fast and direct economic assistance in this time of crisis. As the Regional Transportation Planning Entity (RTPE) for Los Angeles County, Metro is responsible for allocating transportation funding provided under the CARES Act to transit agencies in the county.

BACKGROUND

With the implementation of the “Safer at Home” order in March, nonessential businesses closed, and all residents were directed to leave their homes only for essential activities. Consumer spending has plummeted and transit ridership and fare revenues have dropped dramatically resulting in an estimated \$1.8 billion reduction in resources available to operate and maintain Los Angeles County’s

transit mobility network.

DISCUSSION

The revenues received from local and state derived sales tax measures, the basis of our investment in mobility, are estimated to decline by a total of \$1.060 billion over FY20 adopted budget and FY21 pre-COVID levels. And, as noted above, these reductions, when combined with additional losses from fare revenues, tolls, advertising and other system revenues, and the increased costs of response to the coronavirus, the impact to Los Angeles County’s transportation resources is estimated at \$1.8 billion. These unprecedented revenue losses affect every component of Los Angeles County’s transportation investment program, including Metro’s bus and rail operations, municipal transit operators, the 89 local jurisdictions throughout Los Angeles County, local community based operators, regional operators such as Metrolink and Access Services, Metro’s Measure R and Measure M Capital Programs, and other partnerships throughout the county.

CARES Act Appropriation

The CARES Act provides relief funding to “prevent, prepare for, and respond to” the COVID-19 pandemic. The Federal Transit Administration (FTA) allocated a total of \$1.068 billion to Los Angeles County under the existing FTA Section 5307 Urbanized Area Formula Grants program.

“Funds provided under this heading are available for the **operating expenses of transit agencies related to the response to a coronavirus** public health emergency as described in section 319 of the Public Health Service Act, including, beginning on January 20, 2020, **reimbursement for operating costs to maintain service and lost revenue due to the coronavirus public health emergency**, including the purchase of personal protective equipment, and paying the administrative leave of operations personnel due to reductions in service...”

Costs eligible for reimbursement are broadly defined as “operating expenses of transit agencies related to the response to a coronavirus public health emergency” including reimbursement for operating costs to maintain service and lost revenue, and support transit workers jobs.

The FTA apportions funding by Urbanized Zone Area (UZA). The total CARES Act apportionment for each of the three UZAs in Los Angeles County, Lancaster-Palmdale and Santa Clarita, shown in the table below. For a detailed listing of the proposed allocation of the total \$1.068 billion in CARES Act funding, see Attachment A.

Urban Zone Area (UZA) (\$Millions)	Grand Total
CARES Act Apportionment	\$ 1,068.0
Less - Direct Apportionments (Lancaster-Palmdale, Santa Clarita, Metro)	(69.9)
Funds Available for Countywide Allocation	\$ 998.1

* Excludes 5311 funding of est. \$1.36 million to AVTA for service to rural areas in the North County (contingent on final allocations from CalTrans)

CARES ALLOCATION

In order to provide CARES Act relief to transit operators throughout Los Angeles County, Metro staff has proposed that the CARES allocation is based on offsetting and mitigating the loss of sales tax revenues, fares and other revenues. The goal of the CARES allocations is to ensure, as broadly as is feasible, that support is provided to all transit operators in the County.

The initial priority is to estimate, address, and mitigate reductions in sales tax revenue for FY20 and FY21. The goal of this phase is to ensure that funding for transit operations throughout the county is maintained and supported at pre-COVID funding levels, as intended under the CARES Act. Each operator will receive their full FY20 funding allocation as adopted by the Metro Board. Each operator is also proposed to receive funding equal to levels originally estimated for FY21, prior to the onset of the COVID-19 pandemic. As a result, each operator is expected to be “held harmless” in relation to the reduction of sales tax revenues anticipated for FY20 and FY21.

However, recognizing operators will also see significant reductions in fare and other system revenues, staff is proposing that additional supplemental amounts be distributed to help mitigate, and provide some measure of relief, for losses of other revenues and/or cost increases as a result of the pandemic.

The proposed allocation would provide CARES Act funding to support Los Angeles County transit operators, including Metrolink, Access Services, local paratransit, dial-a-ride, community shuttle operating partners and to support regional transit programs. The intent of the CARES allocation is to fairly distribute the limited funding available to ensure the residents and visitors to Los Angeles County retain access to mobility.

Step 1 - Recover Loss in Sales Tax Revenues

First, CARES Act funding will be allocated to recover the estimated loss in sales tax revenues for each transit operator to satisfy the CARES Act’s intent to maintain service by providing funding levels that were expected prior to the onset of the COVID-19 pandemic. Amounts allocated will be based on the difference between approved FY20 budget and estimated pre-COVID FY21 funding levels with the projected losses in sales taxes for FY20 and FY21.

Step 2 - Provide Supplemental Relief Funding

In Step 2, the proposed method will provide additional funding to help mitigate losses in fare revenues and increased costs related to COVID-19. To address the differing needs of transit operators, supplemental relief funding is proposed using various strategies:

- For Metro and Municipal Operators, the supplemental amount is equal to and in addition to the sales tax revenue loss as calculated in Step 1.
- For Tier 2 and Small Operators, the supplemental amount is equal to ½ of their total annual allocation. This is in addition to Step 1 in recovering their losses in sales tax revenues. This method also provides more funds to this group than it would by doubling the sales tax revenue

loss.

- For Metrolink and Access Services, the supplemental amount is equal to the estimated loss in fare revenues over FY20 and FY21 for each agency. This is in addition to Step 1 in recovering their losses in sales tax revenues.

Step 3 - Regional Needs

The third and final step is to retain some level of funding for countywide transit activities performed by Metro on behalf of the region. In this category, the remaining CARES Act funding will be maintained by Metro to fund the regional fare collection system, regional subsidies such as the Low Income Fare is Easy (LIFE) and Vanpool programs, regional transit hubs such as Union Station and El Monte Station, and congestion management programs.

See Attachment B for a description of the CARES allocations and estimated sales tax losses.

Letters of Support & Concurrence

The recommended allocations for CARES Act funding has been reviewed with the various stakeholder groups that represent transit operators in the region. Stakeholders include:

1. Los Angeles County of Municipal Operators Association (LACMOA)
 - Representing 16 Transit Operators
2. Tier 2 Operators Program
 - Representing 4 Operators
3. Local Transit Systems Subcommittee (LTSS) Small Operators
 - Representing 47 Community Operators
4. Access Services
5. Southern California Regional Rail Authority (SCRRA) - Metrolink
6. Palos Verdes Peninsula Transit Authority
7. City of Avalon
8. City of Glendora
9. Torrance Transit

All stakeholders have provided letters of support and concurrence for the CARES allocations, see Attachment C.

Reimbursement Process and Eligible Expenses

The terms of the CARES Act allow 100% reimbursement for eligible expenses incurred after January 20, 2020. Claimants must submit eligible expenses for reimbursement in accordance with the current Federal claims process. Expenses eligible for reimbursement are:

- Transit operations, capital, and planning expenses eligible under Section 5307
- Costs to operate, maintain, and manage a public transit system (i.e. driver salaries, fuel, pension, benefits, self-insurance, personal protective equipment, and cleaning supplies)
- Capital costs (i.e. purchasing, leasing, constructing, maintaining, or repairing transit system)

- facilities, rolling stock, and equipment)
- Administrative leave for workers due to reduced service or quarantine
- Reimbursement of lost fare revenue
- Paratransit or COVID-19 related charter service (i.e. meal delivery)

Funding Exchanges and Necessary Agreements

Municipal Operators are direct recipients of these funds and upon submittal of the allocation tables to Southern California Association of Governments (SCAG), operators can initiate the grant approval process to begin submitting invoices for reimbursement. In order to expedite the disbursement of relief funding to other agencies, fund exchanges may be necessary between CARES Act funds and other locally eligible sources. Metro will work with these agencies to finalize necessary details on the administration of these funds.

DETERMINATION OF SAFETY IMPACT

Adoption of this item will provide funding for increased safety efforts by providing COVID-19 relief funding to Los Angeles County transit agencies impacted by the pandemic.

FINANCIAL IMPACT

The total \$1.068 billion in Federal CARES Act funding will be distributed to transit agencies throughout Los Angeles County as shown in Attachment A.

Impact to Budget

Sales tax revenues from all sources are projected to decline by more than \$1 billion through the end of FY21. Additional Metro specific revenue losses including fares, toll revenues, and other system generated revenues are estimated to decline an additional \$350 million to \$400 million. Combined with cost increases as a result of the COVID-19 pandemic, the negative impact to Metro is estimated to be approximately \$1.8 billion.

Use of the CARES Act funds will help mitigate, but not eliminate the funding gap from January 2020 through June 2021. Staff will continue to provide the Board with additional information on the steps necessary to mitigate these additional losses as part of developing the FY21 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

1. Provide high-quality mobility options that enable people to spend less time traveling;
2. Deliver outstanding trip experiences for all users of the transportation system;
3. Enhance communities and lives through mobility and access to opportunity;
4. Transform Los Angeles County through regional collaboration and national leadership; and
5. Provide responsive, accountable, and trustworthy governance within the Metro organization

ALTERNATIVES CONSIDERED

The Board may choose not to approve the staff's proposed CARES Act funding allocation method and instruct staff to allocate funds through some other Board directed process. This is not recommended, as this will cause significant delays in the receipt of funds for all transit operators and agencies in Los Angeles County.

Finally, as detailed on the attached letters of support, a consensus of agreement has been reached across the full spectrum of the County's transit operating partners. (See Attachment D).

NEXT STEPS

Should the Board approve staff's recommendation, staff will:

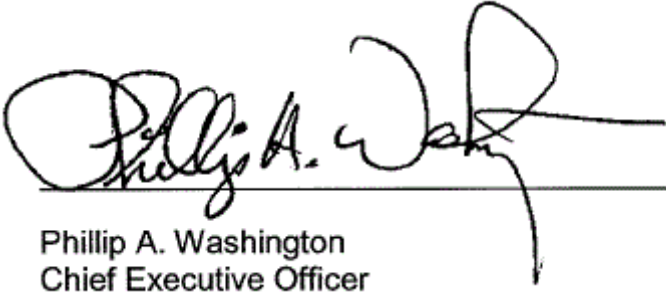
- Provide notification to SCAG and the FTA of the proposed distributions to allow affected recipients to initiate the grant process and begin drawing down CARES Act funding.
- Continue to update the Board on the impacts of the COVID-19 pandemic to Metro and the region.
- Work with operators and agencies on final administrative requirements and fund distribution details

ATTACHMENTS

- A. Detailed CARES Allocation Amounts By Transit Operator/Agency
- B. Description of CARES Allocation and Estimated Sales Tax Losses
- C. Letters of Support and Concurrence
 - 1. Los Angeles County of Municipal Operators Association (LACMOA)
 - Representing 16 Transit Operators
 - 2. Tier 2 Operators Program
 - Representing 4 Operators
 - 3. Local Transit Systems Subcommittee (LTSS) Small Operators
 - Representing 47 Community Operators
 - 4. Access Services
 - 5. Southern California Regional Rail Authority (SCRRA) - Metrolink
 - 6. Palos Verdes Peninsula Transit Authority
 - 7. City of Avalon
 - 8. City of Glendora
 - 9. Torrance Transit

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Phillip A. Washington
Chief Executive Officer

**Los Angeles County Metropolitan Transportation Authority
Proposed CARES Allocation to Transit Operations**

Formula Allocation Procedure (FAP) Operators & Metro Rail				
		Maintain Funding Levels	Supplemental Funding	Total CARES Allocation
Metro Transit				
1	Metro Bus Ops	\$ 167,098,181	\$ 167,098,181	\$ 334,196,361
2	Metro Rail Ops	126,470,961	126,470,961	252,941,922
Municipal Operators				
3	Arcadia	206,559	206,559	413,118
4	Claremont	76,519	76,519	153,038
5	Commerce	417,209	417,209	834,418
6	Culver City	3,286,560	3,286,560	6,573,119
7	Foothill Transit	14,928,460	14,928,460	29,856,920
8	Gardena	3,325,124	3,325,124	6,650,248
9	La Mirada	61,549	61,549	123,098
10	Long Beach	14,601,919	14,601,919	29,203,837
11	Montebello	5,087,634	5,087,634	10,175,268
12	Norwalk	1,903,609	1,903,609	3,807,217
13	Redondo Beach	453,340	453,340	906,679
14	Santa Monica	12,180,206	12,180,206	24,360,412
15	Torrance	3,955,055	3,955,055	7,910,110
Subtotal Municipal Operators		\$ 60,483,742	\$ 60,483,742	\$ 120,967,484
Eligible Operators				
16	Antelope Valley	2,119,521	2,119,521	4,239,043
17	LADOT	7,915,635	7,915,635	15,831,270
18	Santa Clarita	1,888,097	1,888,097	3,776,194
19	Foothill BSCP	1,580,300	1,580,300	3,160,600
20	Subtotal Eligible Operators	\$ 13,503,553	\$ 13,503,553	\$ 27,007,107
21	Subtotal (Bus FAP + Metro Rail)	\$ 367,556,437	\$ 367,556,437	\$ 735,112,874
Additional Regional Transit Operators (1)				
		Maintain Funding Levels	Supplemental Funding	Total
Tier 2 Operators				
22	LADOT Community Dash	\$ 1,222,102	\$ 2,389,971	\$ 3,612,073
23	Glendale	177,431	346,989	524,420
24	Pasadena	103,399	202,210	305,610
25	Burbank	31,105	60,830	91,935
26	Subtotal Tier 2	\$ 1,534,038	\$ 3,000,000	\$ 4,534,038
Small Operators				
27	Regional Paratransit Operators	\$ 1,540,203	\$ 2,984,308	\$ 4,524,511
28	Voluntary Operators	1,049,642	2,046,663	3,096,305
29	Special Demonstration Projects	513,277	150,000	663,277
30	Subtotal Small Operators (2)	3,103,122	5,180,971	8,284,093
Other Transit Operators				
31	Metroink	\$ 21,432,000	\$ 35,000,000	\$ 56,432,000
32	Access Services	\$ 25,200,000	\$ 8,300,000	\$ 33,500,000
33	Total Direct Transit Operations	\$ 418,825,597	\$ 419,037,408	\$ 837,863,005
34	Regional Transit Support	\$ 160,220,592		\$ 160,220,592
Direct Apportionments				
35	Santa Clarita (5307/5340)		\$	14,486,864
36	Lancaster-Palmdale (Antelope Valley Transit Authority) (5307/5337/5340)			30,713,119
37	Metro (5340)			24,724,705
38	Section 5311 (AVTA) (3)			-
Subtotal Direct Apportionments				69,924,688
39	Total CARES Act Allocations	\$ 579,046,189	\$ 419,037,408	\$ 1,068,008,285

(1) Fund exchanges of Federal CARES Act funding, as appropriate, with other local funding sources in order to provide administrative efficiencies and to optimize and accelerate the distribution of resources.

(2) Detailed listing of Small Operator Allocations on pages 2-3.

(3) Represents 5311 funds to LACDPW for AVTA's service to rural areas in the North County subregion. Amount is estimated at \$1.36M and contingent upon final allocations by CalTrans.

Los Angeles County Metropolitan Transportation Authority
Proposed CARES Allocation to Small Operators
Regional Paratransit, Voluntary Reporters, Special Projects

	Operators	Maintain Funding Levels	Supplemental Funding	Total CARES Allocation
Regional Paratransit Priority I Operators				
1	Agoura Hills	\$ 16,791	\$ 31,304	\$ 48,095
2	Antelope Valley, Elderly & Disabled	84,153	158,875	243,028
3	Beverly Hills Taxi & Lift Van	2,721	-	2,721
4	Culver City Community Transit and LA County	16,042	27,732	43,774
5	Gardena, Hawthorne and LA County	47,845	91,771	139,616
6	Glendale Paratransit and La Canada Flintridge	65,618	126,920	192,538
7	Inglewood Transit and LA County	49,907	101,949	151,856
8	LA County (Whittier et al)	52,848	98,842	151,691
9	LA County (Willowbrook)	10,610	20,439	31,049
10	Los Angeles Taxi & Lift Van, City Ride	94,787	195,962	290,748
11	Los Angeles Dial-a-Ride, City Ride	270,416	522,476	792,892
12	Monrovia D.A.R. and LA County	28,700	48,785	77,486
13	Palos Verdes PTA D.A.R.	10,385	19,971	30,357
14	Palos Verdes PTA - PV Transit	98,817	187,423	286,240
15	Pasadena Community Transit, San Marino and LA County	116,651	225,559	342,211
16	Pomona Valley TA - E&D (Get About)	196,029	378,490	574,519
17	Pomona Valley TA General Public (VC)	19,312	35,277	54,589
18	Redondo Beach Community Transit and Hermosa Beach	1,893	1,069	2,961
19	Santa Clarita D.A.R.	211,562	452,071	663,633
20	West Hollywood (DAR)	64,090	122,128	186,218
21	West Hollywood (Taxi)	10,038	-	10,038
22	Whittier (DAR)	70,986	137,267	208,253
23	Subtotal - Regional Paratransit Priority I Operators	\$ 1,540,203	\$ 2,984,308	\$ 4,524,511
Voluntary Reporters				
24	City of Alhambra (MB and DR)	\$ 28,951	\$ 55,520	\$ 84,471
25	City of Artesia (DR)	1,362	2,552	3,914
26	City of Azusa (DR)	10,134	19,202	29,336
27	City of Baldwin Park (MB and DR)	24,014	48,244	72,257
28	City of Bell (MB/DR)	5,982	11,416	17,398
29	City of Bell Gardens (MB and DR)	15,915	30,268	46,183
30	City of Bellflower (MB and DR)	10,497	19,537	30,034
31	City of Burbank (MB)*	28,530	54,053	82,583
32	City of Calabasas (MB and DR)	14,944	25,220	40,163
33	City of Carson (MB and DT)	47,181	89,908	137,089
34	City of Cerritos (MB)	25,562	48,993	74,555
35	City of Compton (MB)	13,926	26,640	40,566
36	City of Covina (DR)	6,485	12,609	19,094
37	City of Cudahy (MB and DR)	5,825	11,468	17,293
38	City of Downey (MB and DR)	21,232	41,408	62,640
39	City of Duarte (MB)	7,384	12,259	19,643
40	City of El Monte (MB and DR)	33,438	61,476	94,913
41	City of Glendora (MB and DR)	20,598	37,227	57,825
42	City of Glendale (MB)*	70,965	136,086	207,050
43	City of Huntington Park (MB)	15,846	51,501	67,347
44	City of Los Angeles -- Community DASH* (MB)	269,699	534,015	803,714
45	City of Los Angeles -- Department of Aging (DR)	43,453	80,594	124,047
46	LA County Dept. of Public Works -- Avocado Heights (MB)	4,202	8,013	12,214
47	LA County Dept. of Public Works -- East Valinda (MB)	4,721	9,024	13,745
48	LA County Dept. of Public Works -- East LA (MB and DR)	34,618	65,330	99,948
49	LA County Dept. of Public Works -- Willowbrook (MB)	8,692	16,966	25,658
50	LA County Dept. of Public Works -- King Medical (MB)	3,772	7,246	11,017
51	LA County Dept. of Public Works -- Athens (MB)	3,970	7,532	11,502
52	LA County Dept. of Public Works -- Lennox (MB)	3,157	5,855	9,012
53	LA County Dept. of Public Works -- South Whittier (MB)	22,139	41,660	63,799
54	LA County Dept. of Public Works -- Florance/Firestone (MB)	3,548	11,532	15,080
55	City of Lakewood (DR)	4,599	14,947	19,546

Los Angeles County Metropolitan Transportation Authority
Proposed CARES Allocation to Small Operators
Regional Paratransit, Voluntary Reporters, Special Projects

	Operators	Maintain Funding Levels	Supplemental Funding	Total CARES Allocation
	Voluntary Reporters			
56	City of Lawndale (MB)	8,383	16,097	24,480
57	City of Lynwood (MB)	14,558	27,932	42,490
58	City of Malibu (DT)	2,902	1,721	4,623
59	City of Manhattan Beach (DR)	5,039	10,248	15,286
60	City of Maywood (DR)	6,104	11,775	17,879
61	City of Monterey Park (MB and DR)	26,344	49,674	76,017
62	City of Pasadena (MB)*	69,322	136,620	205,942
63	City of Pico Rivera (DR)	2,259	4,211	6,470
64	City of Rosemead (MB and DR)	18,847	36,069	54,916
65	City of Santa fe Springs (DR)	1,920	4,342	6,262
66	City of South Gate (DT and MB)	38,264	72,143	110,407
67	City of South Pasadena (DR)	3,837	7,281	11,118
68	City of West Covina (MB and DR)	24,593	46,486	71,080
69	City of West Hollywood (MB)	11,930	23,765	35,696
70	Subtotal - Voluntary Reporters	\$ 1,049,642	\$ 2,046,663	\$ 3,096,305
	Special Demonstration Projects			
71	Avalon Ferry Subsidy	\$ 174,669	\$ 150,000	\$ 324,669
72	Avalon Transit Services (Jitney and Dial-a-Ride)	74,858		74,858
73	Hollywood Bowl Shuttle Service	263,750		263,750
74	Subtotal - Special Demonstration Projects	\$ 513,277	\$ 150,000	\$ 663,277
75	Total - Small Operators Incentive Fund	\$ 3,103,122	\$ 5,180,971	\$ 8,284,094

CARES Allocation

Purpose:

“Funds provided under this heading are available for the **operating expenses of transit agencies related to the response to a coronavirus** public health emergency as described in section 319 of the Public Health Service Act, including, beginning on January 20, 2020, **reimbursement for operating costs to maintain service and lost revenue due to the coronavirus public health emergency**, including the purchase of personal protective equipment, and paying the administrative leave of operations personnel due to reductions in service...”

Objective:

- A) Maintain funding to mitigate reduction in Countywide Sales Tax Revenues for FY20 Budget and FY21 Projected (See below for discussion on Estimated Revenue Reductions)
- B) Allocate supplemental funding to mitigate additional revenue losses and increased costs related to COVID-19
- C) Allocate funding to address some regional needs to support countywide transit impacted by the loss in sales taxes and other revenues

Methodology:

- A) Estimate loss in sales taxes in FY20 and FY21 and allocate the CARES funding to mitigate those losses.
- B) Provide supplemental relief to mitigate additional revenue losses and costs associated with COVID-19.
 - 1) Municipal Operators are allocated:
 - Supplemental Relief in the amount of estimated FY20 and FY21 sales tax losses
 - 2) Tier 2 Operators/Small Operators are allocated:
 - Supplemental Relief in the amount of ½ of their annual sales tax funding amounts
 - 3) Other Operator Needs:
 - Supplemental Relief in the amount of estimated fare revenues loss
- C) Regional Needs to support countywide transit are allocated:
 - FY20 and FY21 estimated sales tax losses and other revenue losses for programs to support countywide programs

Revenue Estimates:

- A) LA County taxable sales were broken down into economic sectors and percentage of revenue those sectors generate
- B) The biggest expected declines are in restaurants, followed by apparel, furniture and appliances, department stores, auto sales and service stations
- C) Staff consulted both public and private economic forecasts and analysis, Census Bureau data, and agency peers to project and validate estimated impacts by economic sector by calendar quarter
- D) Staff has assumed two quarters (FY20 Q4 and FY21 Q1) of severe contraction and three quarters (FY21 Q2-Q4) of gradual recovery
- E) Total Sales Tax Based Revenues are estimated to decline \$1.060 Billion during Fiscal Years 20 and 21 as a result of the impacts of the COVID-19 pandemic

Sales Taxed Based Revenues

Estimated Impacts of COVID-19
(\$ Millions)

Source of Funds (\$Mil)	FY20			FY21			Fiscal Years Combined
	Adopted Budget	Revised	Reduction	Proposed*	Revised	Reduction	
1 LA County Local Measures	\$ 3,492.0	\$ 3,126.8	\$ (365.2)	\$ 3,640.0	\$ 3,112.4	\$ (527.6)	\$ (892.8)
2 State TDA	436.5	390.9	(45.7)	455.0	389.1	(65.9)	(111.6)
3 STA/SB1 State Funds	245.9	220.6	(25.3)	213.9	183.6	(30.3)	(55.6)
4 Total	\$ 4,174	\$ 3,738	\$ (436)	\$ 4,309	\$ 3,685	\$ (624)	\$ (1,060.0)

* Proposed Revenue for FY21 as of Draft Funding Marks (March 2020)



LACMOA

Los Angeles County
Municipal Operators Association

ATTACHMENT C-1

Antelope Valley Transit Authority
Arcadia Transit
Beach Cities Transit
Claremont Dial-a-Ride
Commerce Municipal Bus Lines
Culver CityBus
Foothill Transit
City of Gardena's GTrans

La Mirada Transit
Long Beach Transit
Los Angeles DOT
Montebello Bus Lines
Norwalk Transit System
Santa Clarita Transit
Santa Monica's Big Blue Bus
Torrance Transit System

May 18, 2020

Mr. Phillip A. Washington, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority (Metro)
One Gateway Plaza
Mail Stop: 99-25-1
Los Angeles, CA 90012-2952

Dear Mr. Washington:

In accordance with the Coronavirus Aid, Relief, and Economic Security (CARES) Act to provide funding to prevent, prepare for, and respond to the novel coronavirus (COVID-19); the Los Angeles County Municipal Operators Association (LACMOA) comprised of sixteen (16) municipal agencies (Munis') understands the partnership role we play in delivering vital services that bind together our Los Angeles County region.

Therefore, LACMOA concurs with Metro's allocation of CARES Act funding proposal presented at the General Manager's meeting of May 13, 2020, that included allocation objectives and funding methodology for maintaining Muni transit agency funding levels and supplemental relief funding; as well as distribution of Los Angeles County area shares for Antelope Valley Transit Authority and Santa Clarita Transit. This concurrence is based on our effort to collaborate to the fullest extent possible in order to achieve a stable outcome from the impacts of COVID-19.

I want to thank you again for your consideration and ongoing support to achieve consensus during these unprecedented times. We look forward to continuing our discussion on the future Federal or State COVID-19 relief funding.

Sincerely,

James C. Parker
LACMOA Chair

cc: LA County Municipal Operators



DEPARTMENT OF TRANSPORTATION

May 15, 2020

Mr. Phillip A. Washington, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Mail Stop 99-25-1
Los Angeles, CA 90012-2952

Dear Mr. Washington,

On behalf of Los Angeles County's Tier 2 Operator program, we would like to thank you and Metro staff for recognizing the inter-dependent nature of Los Angeles County's transportation network and the vital role played by Tier 2 Operators. We understand the challenges faced by Metro in allocating funding to mitigate the loss in sales tax revenues and the increased costs associated with COVID-19 in a way that addresses the needs of the overall region.

As Tier 2 Operators we support Metro's Coronavirus Aid, Relief, and Economic Security (CARES) Act allocation methodology as presented in your letter dated May 13, 2020. All transit providers in the County will experience impacts that exceed the resources made available by the CARES Act. The majority of Tier 2 Operator funding is generated via Local Return rather than from any of Metro's formula or discretionary funding programs. Tier 2 systems need to be included in any future relief efforts and to be able to actively participate in these discussions.

We appreciate the efforts by you and your staff on behalf of all operators in the County and look forward to working collaboratively with Metro in meeting the challenges ahead.

Sincerely,

Sebastián Andrés Hernández
City of Pasadena, Principal Planner
Tier 2 Operators

cc. Tier 2 Operators





May 14, 2020

Mr. Phillip A. Washington, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Mail Stop 99-25-1
Los Angeles, CA 90012-2952

Dear Mr. Washington,

On behalf of the Local Transit System operators of Los Angeles County we would like to thank you and Metro staff for recognizing the inter-dependent nature of Los Angeles County's transportation network and the vital role played by local transit operators. We understand the challenges faced by Metro in allocating funding to mitigate the loss in sales tax revenues and the increased costs associated with COVID-19 in a way that addresses the needs of the overall region.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act funding is intended to support all transit operators impacted by the pandemic. As local transit operators we support Metro's CARES Act allocation methodology as presented in your letter dated May 13, 2020.

All transit providers in the County will experience impacts that exceed the resources made available by the CARES Act. This is particularly true for local transit systems since the bulk of our funding is generated via Local Return rather than from any of Metro's formula or discretionary funding programs. Local transit systems need to be included in any future relief efforts and to be able to actively participate in these discussions.

We appreciate the efforts of you and your staff on behalf of all operators in the County and look forward to working collaboratively with Metro in meeting the challenges ahead.

Sincerely,
[Signature]
George L. Sparks
PVTA Administrator with
Local Transit Systems



May 13, 2020

Mr. Phillip A. Washington
Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority (Metro)
One Gateway Plaza
Los Angeles, CA 90012

Subject: CARES Act Allocations

Dear Mr. Washington:

Thank you for your letter dated May 13, 2020, outlining Metro's methodology and process for distributing funds allocated to the region in the Coronavirus Aid, Relief, and Economic Security (CARES) Act.

In your letter, Metro proposes to allocate \$33.5 million to Access Services to support the provision of mandated Americans with Disabilities Act (ADA) paratransit services for people with disabilities in Los Angeles County. Access Services supports this allocation and concurs with the regional approach and methodology you and your staff have proposed to distribute these funds.

Thank you for your support of services for people with disabilities in Los Angeles County. Please let me know if you have any questions or would like additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "AC".

Andre Colaiace
Executive Director

Cc: Jonaura Wisdom, Chief Civil Rights Program Officer
Nalini Ahuja, Chief Financial Officer
Michelle Navarro, Executive Officer, Finance



METROLINK

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

900 Wilshire Blvd. Suite 1500 Los Angeles, CA 90017

metrolinktrains.com

May 15, 2020

Mayor James Butts
Chair, Board of Directors
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012

RE: Staff Recommendation on CARES Act Allocation of \$1.068 Billion

Dear Chair Butts,

On behalf of the Southern California Regional Rail Authority (SCRRA), I am pleased to submit a letter in SUPPORT of the staff recommendation regarding the CARES Act Allocation of \$1.068 Billion. I want to commend Metro staff for providing an opportunity to review their methodology and consider input from SCRRA and the municipal operators.

This public health emergency is unprecedented and has significantly impacted all LA County transit operators. Beginning March 26th, SCRRA temporarily reduced weekday train service by approximately 30% until further notice. This proactive measure was in response to significantly lower ridership, and an effort to help minimize health risks to the operating crews and riders while still providing a critical public service for essential workers. At the time of implementation of the service reduction, ridership had fallen by 80%. Today, it appears to be at a steady state of 90% decline when compared to ridership from a year ago. (A recent SCRRA customer survey revealed that 71% of current riders describe themselves as essential workers, with 39% working in the healthcare industry. And 32% of essential workers are riding Metrolink because they do not have access to a car.)

SCRRA is also experiencing a corresponding 90% decline in fare revenue. We have undertaken cost containment/cost savings measures including a travel freeze and a hiring freeze of non-mission critical positions. In addition, in response to a review of all discretionary spending, my executive team has identified over \$8 million in savings or deferrals for this fiscal year. Despite these efforts, we have less than five months operating cash-flow, so I also respectfully request action by the Board at your May meeting.

While SCRRA operates in six counties, 80% of SCRRA riders work in LA County and 66% of our employees live in LA County. Approval of the staff recommendation will cover the LA County share of fare revenue loss for FY20 and FY21 as well as the share of costs incurred for additional PPE and enhanced cleanliness of our system to protect the health and safety of our employees and riders.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephanie', with a long horizontal flourish extending to the right.

Stephanie N. Wiggins
Chief Executive Officer

May 15, 2020

Mr. Phillip A. Washington, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Mail Stop 99-25-1
Los Angeles, CA 90012-2952

Dear Mr. Washington,

On behalf of the Palos Verdes Peninsula Transit Authority (PV Transit), we would like to thank you and Metro staff for recognizing the inter-dependent nature of Los Angeles County's transportation network and the vital role played by local transit operators such as PV Transit. We understand the challenges faced by Metro in allocating funding to mitigate the loss in sales tax revenues and the increased costs associated with COVID-19 in a way that addresses the needs of the overall region.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act funding is intended to support all transit operators impacted by the pandemic. As a local transit operator PV Transit supports Metro's CARES Act allocation methodology as presented in your letter dated May 13, 2020.

We appreciate the efforts of you and your staff on behalf of all operators in the County and look forward to working collaboratively with Metro in meeting the challenges ahead.

Sincerely,



Martin Gombert
Administrator

CC: PVPTA Board of Directors



City of Avalon

Santa Catalina Island

May 20, 2020

VIA EMAIL

Mr. Phillip A Washington, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority (Metro)
One Gateway Plaza
Mail Stop:99-25-1
Los Angeles, CA 90012-2952

Dear Mr. Washington:

On behalf of the City of Avalon, we would like to thank you and Metro staff for recognizing the needs of small local operators. The recommended CARES Act funding allocations will help our agency to continue to serve our residents in this difficult time.

Metro’s methodology, process and allocations are fair given the challenges Metro faces in addressing the needs of the entire region. The methodology of maintaining funding levels and providing supplemental funding will provide the needed financial relief to sustain our transportation needs.

Our residents rely on the ferry service as a critical lifeline to the mainland for access to healthcare, higher education and basic shopping needs. This program allows residents to travel on the ferry at discounted rates. The COVID crisis has hit our community particularly hard, with 67% of our residents living in poverty prior to the crisis. The ability to assure our residents their reduced ferry fares will not be impacted will provide tremendous relief during this difficult time.

We appreciate the efforts you and your staff have put into this and we support the allocations. We look forward to working collaboratively with Metro as we navigate through the challenges ahead.

Sincerely,

Denise A. Radde, City Manager

Cc: Jocelyn Rivera- Olivas, Transportation Deputy, Office of Supervisor Janice Hahn
Herlinda Chico, Field Deputy, Office of Supervisor Janice Hahn

Administration/ Public Works	Finance	Harbor Department	Fire Department	Recreation Department	Planning/Building Capital Improvements
P.O. Box 707	P.O. Box 707	P.O. Box 1085	P.O. Box 707	P.O. Box 707	P.O. Box 707
Avalon, CA 90704	Avalon, CA 90704	Avalon, CA 90704	Avalon, CA 90704	Avalon, CA 90704	Avalon, CA 90704
310 510-0220	310 510-0220	310 510-0535	310 510-0203	310 510-0220	310 510-0220
Fax 310 510-0901	Fax 310 510-0765	Fax 310 510-2640	Fax 310 510-0104	Fax 310 510-9528	Fax 310 510-2608



CITY OF GLENDORA CITY HALL

(626) 914-8200

116 East Foothill Blvd., Glendora, California 91741
www.ci.glendora.ca.us

May 21, 2020

Mr. Phillip A Washington
 Chief Executive Officer
 Los Angeles County Metropolitan Transportation Authority
 One Gateway Plaza
 Mail Stop: 99-25-1
 Los Angeles, CA 90012-2952

Dear Mr. Washington,

On behalf of the City of Glendora, we would like to thank you and Metro staff for recognizing the needs of the local operators throughout Los Angeles County. The recommended CARES Act funding allocations will help Glendora continue to provide public transit services for our residents while also implementing safety protocols.

As you are aware, typically local operators are excluded from new federal and state funding opportunities. This approach shows careful consideration of the transit network and the critical role local operators play in providing transit services. We are heartened by this approach and it speaks to a more holistic approach to transit funding and policy.

Metro's methodology, process, and allocations are fair given the various challenges and needs faced by Metro and the region during this pandemic. The approach of maintaining funding levels and providing supplemental funding will provide critical financial support to ensure the safety of our customers, the public, our staff, and drivers.

Glendora residents rely on the dial-a-ride service to access critical medical services as well as grocery and other services. Additionally, Glendora has maintained our Gold Line shuttle service to provide essential workers continued transit access. The ability to continue these services in the safest manner possible is critical.

We are very appreciative of the efforts from you and your staff to acknowledge the critical role local operators provide to Los Angeles County residents. We look forward to working collaboratively with Metro as we navigate the challenges ahead.

Sincerely,

Adam Raymond
 City Manager



CITY OF
TORRANCE

TRANSIT DEPARTMENT

Kim Turner
Transit Director

310-618-6245
kturner@TorranceCA.Gov

The Honorable James T. Butts Jr.
Chair, Board of Directors
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012

RE: Staff Recommendation on the CARES Act Allocation of \$1.068 Billion

Dear Chair Butts,

On behalf of Torrance Transit, I am pleased to submit a letter in support of Metro staff's recommendation regarding the Coronavirus Aid, Relief, and Economic Security (CARES) Act Allocation of \$1.068 Billion. I would first like to commend Metro staff for their hard work at providing the opportunity to review their methodology and consider input from Torrance Transit. Second, we stand in support with the other municipal operators for this recommendation, as we are aware of the significant challenges, sacrifices faced by Metro in the allocation of the CARES Act funds to mitigate the loss of the sales tax revenue, and the increased costs associated with COVID-19 pandemic.

All Los Angeles County transit operators will experience impacts that far exceed the resources made available by the CARES Act. Torrance Transit is presently experiencing a corresponding temporary decline in ridership of 50% and 100% in fare revenue since our agency adopted a modified schedule in response to this crisis. While we are making every effort to implement agency wide cost containment efforts, we are uncertain of the impacts for many months to come. Therefore, the CARES Acts funding relief proposed will immediately help mitigate the losses and safeguard the employment for bus operators, mechanics, dispatchers, cleaners and other essential workers that need to travel to and from their place of employment in our area. Additionally, this will help the Los Angeles County transit operators recover their footing once the pandemic is finally behind us, and position us to assist with rebuilding efforts.

We are in sincere appreciation of the efforts by Metro staff and look forward to working collaboratively with you and Metro in meeting the challenges of this public health emergency. We urge you to please take action and support the staff recommendation.

Warmest regards,

Kim Turner, Director
Torrance Transit System

Cc: Phillip Washington, CEO Metro



**CITY OF
TORRANCE**

TRANSIT DEPARTMENT

Kim Turner
Transit Director

310-618-6245
kturner@TorranceCA.Gov

May 21, 2020

The Honorable Janice Hahn
500 W. Temple Street, Room 822
Los Angeles, CA 90012

RE: Staff Recommendation on the CARES Act Allocation of \$1.068 Billion

Dear Supervisor Hahn,

On behalf of Torrance Transit, I am pleased to submit a letter in support of Metro staff's recommendation regarding the Coronavirus Aid, Relief, and Economic Security (CARES) Act Allocation of \$1.068 Billion. I would first like to commend Metro staff for their hard work at providing the opportunity to review their methodology and consider input from Torrance Transit. Second, we stand in support with the other municipal operators for this recommendation, as we are aware of the significant challenges, sacrifices faced by Metro in the allocation of the CARES Act funds to mitigate the loss of the sales tax revenue and the increased costs associated with COVID-19 pandemic.

All Los Angeles County transit operators will experience impacts that far exceed the resources made available by the CARES Act. Torrance Transit is presently experiencing a corresponding temporary decline in ridership of 50% and 100% in fare revenue since our agency adopted a modified schedule in response to this crisis. While we are making every effort to implement agency wide cost containment efforts, we are uncertain of the impacts for many months to come. Therefore, the CARES Acts funding relief proposed will immediately help mitigate the losses and safeguard the employment for bus operators, mechanics, dispatchers, cleaners and other essential workers that need to travel to and from their place of employment in our area. Additionally, this will help the Los Angeles County transit operators recover their footing once the pandemic is finally behind us, and position us to assist with rebuilding efforts.

We are in sincere appreciation of the efforts by Metro staff and look forward to working collaboratively with you and Metro in meeting the challenges of this public health emergency. We urge you to please take action and support the staff recommendation.

Warmest regards,

Kim Turner, Director
Torrance Transit System

Cc: Phillip Washington, CEO Metro

COVID-19 Loss and Mitigation

Item #13 – Continuing Resolution for FY2021 Budget
Item #39 – CARES Act Allocations

May 28, 2020

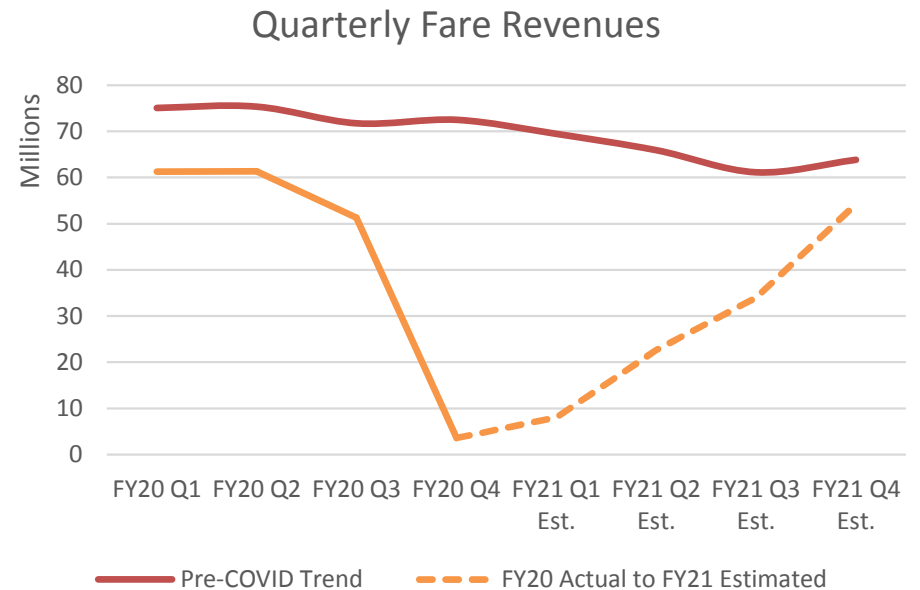
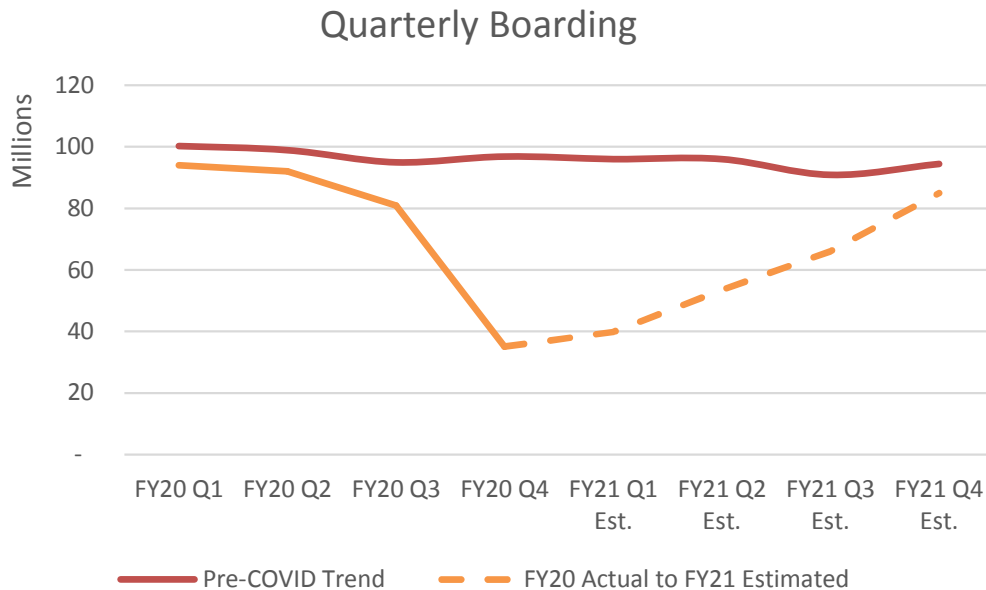


Metro

Agenda

- COVID-19 Impact to Metro
 - ✓ Boarding and Fare Revenue Decline
 - ✓ Sales Tax Update
 - ✓ Revenue Loss Impact to Metro Programs
- Federal CARES Act Stimulus
 - ✓ Timeline, Eligibility, Reimbursement Process
 - ✓ Allocation of CARES Act
- Mitigation
 - ✓ COVID-19 Core Functions to Continue
 - ✓ CEO Call for Action to Reduce Expense
 - ✓ Beyond COVID-19 Strategies: Metro Mobility & Affordability Plan (Metro MAP)
- Next Step

Metro Systemwide Boarding and Fare



- Since March 20th Safe-at-Home order, Metro lost 70% weekly boarding
- Fare revenue lost 95% in the last 2 weeks of March; fare per boarding has fallen from 69¢/boarding to 9¢/boarding
- Recovery is anticipated to start gradually in Q1 of FY21, and may take up to 2 years to return to pre-COVID level

Change in Key Economic Indicators

Economic Indicator	End of January Pre-COVID	Current
Unemployment Rate	● Historic Lows	● Historic Increases
Economic Output	● Moderate and Steady	● Dramatically Reduced
Wage Growth	● Modest	● Layoffs and Furloughs
Political/Geopolitical Unrest	● Trade, Coronavirus	● Global Pandemic
Interest Rate Yield Curve	● Inverted	● Mostly Flat

- Since the last Board Report on Metro's financial projections for FY21, the entire economic picture has turned upside down with unprecedented speed

Economic Sector Analysis

	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
General Retail	27.18%					
Apparel Stores	5.78%	-20%	-60%	-55%	-30%	0%
Department Stores	7.43%	-20%	-40%	-30%	-20%	10%
Furniture/Appliance	3.55%	-20%	-60%	-55%	-30%	0%
Florist/Nursery	0.33%	0%	-25%	-15%	-5%	5%
Miscellaneous Retail	8.15%	0%	-10%	-5%	0%	5%

	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
Food Products	20.01%					
Restaurants	14.85%	-25%	-80%	-60%	-30%	0%
Liquor Stores	0.65%	-3%	-20%	-20%	-10%	0%
Food Processing Eqp	0.57%	-5%	-30%	-20%	-20%	0%

	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
Transportation	19.15%					
Auto Sales - New	7.91%	-15%	-60%	-55%	-40%	0%
Auto Sales - Used	1.31%	-15%	-60%	-55%	-40%	0%
Service Stations	6.86%	-15%	-40%	-25%	-10%	5%

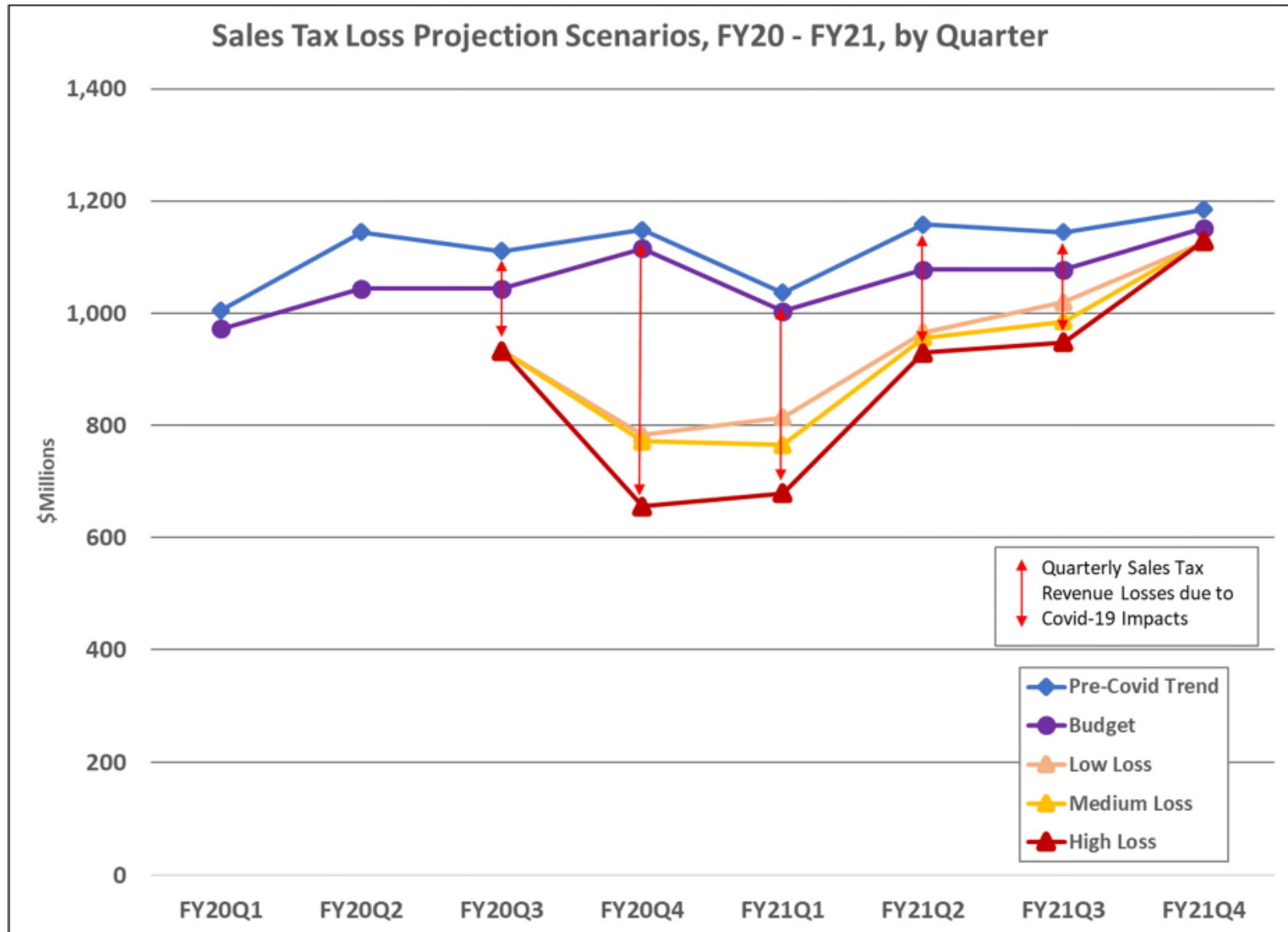
	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
Construction	8.35%					
Bldg. Mats-Whsle	5.11%	0%	-20%	-10%	-5%	5%
Bldg. Mats-Retail	3.24%	0%	-20%	-10%	-5%	5%

	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
Business To Business	20.62%					
Office Equipment	3.34%	-5%	-40%	-30%	-20%	0%
Electronic Equipment	1.05%	-5%	-40%	-30%	-20%	0%
Business Services	1.74%	-5%	-40%	-30%	-20%	0%
Energy Sales	1.17%	-20%	-40%	-30%	-20%	0%
Chemical Products	0.78%	-5%	-40%	-30%	-20%	0%
Heavy Industry	3.56%	-5%	-30%	-20%	-10%	5%
Light Industry	4.37%	-5%	-40%	-30%	-20%	0%
Leasing	4.34%	0%	-30%	-20%	-10%	5%
Biotechnology	0.04%	0%	-20%	-20%	-10%	5%
I.T. Infrastructure	0.12%	0%	-20%	-20%	-10%	5%
Green Energy	0.10%	0%	-40%	-30%	-20%	0%

	% of total	FY20-Q3	FY20-Q4	FY21-Q1	FY21-Q2	FY21-Q3
Miscellaneous	2.61%					
Health & Government	1.62%	0%	-20%	-20%	-10%	0%
Miscellaneous Other	0.99%	-10%	-30%	-30%	-10%	0%

- LA County taxable sales were broken down into economic sectors and percentage of revenue,
- We consulted economic forecasts and Census Bureau data to project losses by sector by quarter
- The biggest expected declines are in restaurants, followed by apparel, furniture and appliances, and auto sales and service stations
- We assumed two quarters of severe contraction and three quarters of gradual recovery

Sales Tax Losses by Quarter



Sales Tax Revenue Losses: Covid-19 Scenarios

Covid-19 Sales Tax Revenue Loss Projections Compared to FY20 Adopted Budget and FY21 Funding Marks

Estimate Including Prop A, Prop C, Meas R, Meas M, TDA, STA/SB1 STA and SB1 SGR

Six Quarters (Jan 2020 - Jun 2021)

Two Fiscal Years (FY 2020 - FY 2021)

Summary (\$Millions)		FY20 (Q3+Q4)	FY21	6-Qtr Loss	FY20	FY21	2-Yr Loss
T	Pre-Covid Revenue Trend	\$ 2,259	\$ 4,524		\$ 4,409	\$ 4,524	
B	FY20 Budget/FY21 Funding Marks	2,165	4,309		4,174	4,309	
L	Covid-19 Low Loss Revenue Estimate	1,715	3,925		3,865	3,925	
L-B	Low Loss From Budget	(450)	(383)	(833)	(309)	(383)	(692)
L-T	Low Loss From Trend	(544)	(598)	(1,142)	(544)	(598)	(1,142)
M	Covid-19 Medium Loss Revenue Estimate	1,715	3,825		3,865	3,825	
M-B	Medium Loss From Budget	(451)	(484)	(935)	(310)	(484)	(794)
M-T	Medium Loss From Trend	(544)	(699)	(1,243)	(544)	(699)	(1,243)
H	Covid-19 High Loss Revenue Estimate	1,588	3,685		3,738	3,685	
H-B	High Loss From Budget	(577)	(624)	(1,201)	(436)	(624)	(1,060)
H-T	High Loss From Trend	(671)	(839)	(1,510)	(671)	(839)	(1,510)

- The six-quarter loss shows the total loss starting in January 2020
- The two fiscal year loss is moderated by over-budget sales tax revenues in the first two quarters of FY20
- Metro sales tax revenues are projected to decline \$1.2B compared to budget and \$1.5B compared to recent trend due to Covid-19
- This represents a 20% decline over the 6 quarters, with a majority of the decreases in FY20 Q4 and FY21 Q1

Combined Revenue Losses in Covid-19 Scenarios

COVID-19 Two Year Loss to Budget (Amount in Millions) ⁽¹⁾	Sales Tax	Fare Revenue	Toll Revenue	Other System Generated Revenues ⁽²⁾	Total Preliminary Loss ⁽³⁾
High	\$ (1,060.0)	\$ (197.3)	\$ (25.0)	\$ (159.8)	\$ (1,442.1)
Medium	\$ (794.0)	\$ (147.8)	\$ (25.0)	\$ (119.7)	\$ (1,086.5)
Low	\$ (692.0)	\$ (128.8)	\$ (25.0)	\$ (104.3)	\$ (950.1)

⁽¹⁾ Revenue loss as compared to FY20 Budget and FY21 projected budget.

⁽²⁾ Other System Generated Revenues include Advertising, Parking, Bike, HOV fines, Green Fund and Carbon Credit

⁽³⁾ Total loss is a very preliminary estimate as Metro continues to review

Revenue Loss Impact to Metro Programs

	COVID-19 Two Year Loss to Budget (Amount in Millions)	Sales Tax	Fare Revenue	Toll Revenue	Other System Generated Revenues	Total Preliminary Loss
1	Metro Bus Operating and State of Good Repair	\$ (198.8)	\$ (141.7)	\$ (0.3)	\$ (38.9)	\$ (379.7)
2	Metro Rail Operating and State of Good Repair	(194.7)	\$ (55.6)	-	(3.9)	(254.2)
3	Additional COVID Cost and Other Operating Expenses					(361.8)
4	Metro Bus and Rail Subtotal	(393.5)	(197.3)	(0.3)	(42.8)	(995.8)
5						
6	Regional Activities					
7	Regional Facility and Hub Maintenance	(3.5)		-	(5.9)	(9.4)
8	Regional TAP and Fare Subsidies	(9.9)		-	(0.1)	(10.0)
9	Regional Rail Infrastructure	(12.1)		-	-	(12.1)
10	Planning, Bike, Parking and Others	(37.8)		-	(47.3)	(85.1)
11	Congestion Management and Commute Services	(10.1)		(24.7)	(32.9)	(67.6)
12	Subtotal Regional	(73.4)		(24.7)	(86.2)	(184.2)
13	Subtotal Metro and Regional Activities	(466.9)	(197.3)	(25.0)	(129.0)	(1,180.0)
14						
15	Regional Transit Other Agencies	(123.6)		-	-	(123.6)
16						
17	Local Return	(176.7)		-	-	(176.7)
18						
19	Infrastructure Construction, Highway, Rail and Others	(292.8)		-	(30.8)	(323.6)
20	Total	\$(1,060.0)	\$ (197.3)	\$ (25.0)	\$ (159.8)	\$ (1,803.9)



Preliminary Impact of Revenue Loss

- Estimated gap in funding of \$1.8 Billion estimated from the combined Sales Tax, Fare Revenue, Toll Revenue and Operation Expenses
- Sales tax loss estimates assume a recovery starting by September 2020
- Continuing to monitor and may revise estimates as we receive updated information
- Additional and immediate liquidity risk is the sales tax deferral aiding small businesses per Governor's State Order on April 2nd, a \$200 million impact to Metro (Cash Flow)

CARES Act

March 27	President signed CARES Act
April 2	FTA Apportionment Tables
April 10	LA County Apportionments
April/May	Stakeholder review of allocations
May	Metro Board approval of Federal CARES Allocations
May	SCAG Split Letter
May/June	Metro & Muni Operators submit grant applications
August/ September	Grant approval process
September/ October	Begin drawing down funds



LA County Apportionment \$1.068 B

CARES Act states:

“Funds to prevent, prepare for, and respond to coronavirus”

“Funds provided under this heading are available for the **operating expenses of transit agencies related to the response to a coronavirus** public health emergency as described in section 319 of the Public Health Service Act, including, beginning on January 20, 2020, **reimbursement for operating costs to maintain service and lost revenue due to the coronavirus public health emergency**, including the purchase of personal protective equipment, and paying the administrative leave of operations personnel due to reductions in service...”

Eligible Expenses

- Transit operations, capital & planning expenses eligible under 5307/5311
- Operations Costs - operate, maintain & manage a public transit system
 - ✓ Ex. Driver salaries, fuel, pension benefits, self-insurance, PPE & cleaning supplies
- Capital Costs – purchasing, leasing, constructing, maintaining, or repairing transit system facilities, rolling stock & equipment
- Administrative leave for workers due to reduced service or quarantine
 - ✓ Authorized absence without loss of pay or reduction in leave time
- Lost revenue – reimburses costs normally paid by local sources including fare revenue
- Paratransit or COVID-19 related charter service – ex. meal delivery

Reimbursement

- Reimbursement for eligible expenses
 - ✓ Incurred on or after January 20, 2020
 - ✓ 100% reimbursement rate
 - ✓ Not limited to capital - operating costs also eligible
- Submit eligible expenses for reimbursement
- Follow current federal claims process
- Certain costs must be segregated (Ex. Administrative Leave)
- Continue tracking COVID-19 impacts to Metro and identify gaps
- **FEMA Funding**
 - ✓ Recommend submittal of Request For Public Assistance in May 2020
 - ✓ Special process required for funding to be available 60-90 days

CARES Allocation

**\$1.068
Billion**

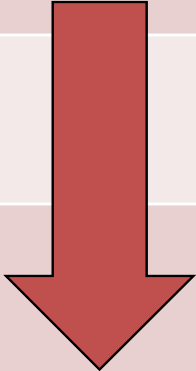
“... reimbursement for operating costs to maintain service and lost revenue due to the coronavirus”

Allocate to maintain service and lost revenues

- **Maintain funding** to mitigate reduction in Countywide Sales Tax Revenues for FY20 Budget and FY21 Projected
- Allocate **supplemental funding** to mitigate additional revenue losses and increased costs related to COVID-19
- Allocate funding to address some regional needs to support countywide transit impacted by the loss in sales taxes and other revenues

CARES Allocation

“... reimbursement for operating costs to maintain service and lost revenue due to the coronavirus”

	Maintain Funding	Supplemental Relief	Total CARES Allocations
Municipal Operators	FY20 and FY21 sales tax losses	FY20 and FY21 sales tax losses	2X Sales Tax Losses
Tier 2/Small Operators		½ of one year sales tax funding amounts	FY20 and FY21 sales tax losses + ½ one year sales tax funding amount
Other Transit Operators Metrolink / Access		Estimated loss in fare revenues	FY20 and FY21 sales tax losses + estimated fare revenue loss
Address regional needs to support countywide transit impacted by loss in sales tax		Partially maintain	FY20 and FY21 sales tax losses + other revenue losses

Summary of CARES Allocation Amounts

Municipal Operators & Metro			
	FY20/FY21 Loss	Supplemental CARES	Total Allocations
Municipal Operators	\$ 73.9	\$ 73.9	\$ 147.9
Metro Bus	167.1	167.1	\$ 334.2
Metro Rail	126.5	126.5	\$ 252.9
Total Municipal Operators & Metro	367.5	367.5	735.0
Other Transit Operators			
Small Operators	2.8	5.0	7.8
Tier 2 Operators	1.5	3.0	4.5
Metrolink	21.4	35.0	56.4
Access Services	25.2	8.3	33.5
Total Other Transit Operators	50.9	51.4	102.3
Regional Needs to support Countywide			
Regional Facilities & Hubs	9.4		9.4
Regional TAP & Fare Subsidies	10.0		10.0
Regional Rail Infrastructure	12.1		12.1
Planning, Bike Ops & Others	61.6		61.6
Congestion Management & Commute Services	67.7		67.7
Total Regional Countywide Transit Needs	160.8	-	160.8
Direct Apportionments			
North County			45.2
Metro			24.7
Total Direct Apportionments (North County/Metro)			69.9
CARES Funding			\$ 1,068.0

Totals may not add due to rounding

Stakeholders Concurrence

Reviewed CARES allocations with stakeholders
Concurrence from our regional partners

- Municipal Operators
- Tier 2 Operators
- Small Operators
- Metrolink
- Access Services



Mitigations and Continuing Strategies

CEO Call for Action: Reduce Expenses
Metro Mobility & Affordability Plan (MAP)

CEO Call to Action: Reduce Expense

First Bucket: Work to Continue

- COVID-19 additional Expense, PPE, Cleaning
- Legally required payments
- Federal and state regulatory required activities
- Bus and Rail Operations
- Key Infrastructure Projects
- Projects under executed construction or manufacturing contract

Second Bucket: All Other Projects and Programs not specified in First Bucket are currently being evaluated with the objective of staying on Measure M Schedule

- Defer for 3-6 months

CEO Call to Action: First Bucket Defined

First Bucket: Work to Continue

- Health and safety for customers and employees
 - PPE
 - Cleaning services
 - Additional expenses directly related to COVID-19
- Operating bus and rail service per Transit Operations Plan
- Federal and State regulatory required activities
- Legally required payments (contractual obligations):
 - Debt service
 - Subsidies
 - License, utilities, rental, etc.

CEO Call to Action: First Bucket Defined

First Bucket: Work to Continue

- Major Infrastructure and projects under executed contract:
 - Airport Metro Connector ⁽¹⁾
 - Crenshaw/LAX ⁽¹⁾
 - Division 20 Portal Widening and Turnback
 - Gold Line Foothill Extension ⁽¹⁾
 - I-5 North HOV (along SR-134 to Buena Vista area) ⁽¹⁾
 - I-5 South HOV (I-605 to Orange County line) ⁽¹⁾
 - Light Rail Vehicle Acquisition Program
 - Link US (Phase 1 only)
 - Metro Bus Fleet Replacement (incl electrification for buses and infrastructure for Orange Line)
 - Patsaouras Bus Plaza
 - Purple Line Extension ⁽¹⁾
 - Regional Connector ⁽¹⁾
 - Soundwall Package 11 ⁽¹⁾
 - SR-138 Corridor project in construction ⁽¹⁾
 - Willowbrook/Rosa Parks Station and Mezzanine

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project

CEO Call to Action: Second Bucket Defined

Second Bucket: All Other Projects and Programs not specified in First Bucket are currently being evaluated with the objective of staying on Measure M Schedule

- Partially grant funded projects
- Projects in various phases and interdependent projects
- Planning projects
- Highway projects
- Regional Rail projects
- Measure M projects being accelerated
- Non-Measure M projects
- State of Good Repair projects
- Pillar project acceleration

As opportunities arise for projects in this bucket, we will move them expeditiously

Call to Action: Second Bucket Defined

Second Bucket: Work Evaluated to Defer with the Objective of Staying on Measure M Schedule (*selective list*)

- Metro Transit Expansion:
 - Arts District / 6th Street Station
 - Center Street Facility / ESOC
 - Countywide BRT Program (incl NSFV BRT, NoHo to Pasadena BRT) ⁽¹⁾
 - Crenshaw Northern Extension ⁽¹⁾
 - East San Fernando Valley LRT ⁽¹⁾
 - East Side Extension Phase 2 ^{(1) (2)}
 - Green Line to Torrance ^{(1) (2)}
 - San Gabriel Valley Transit Feasibility Study ⁽¹⁾
 - Sepulveda Transit Corridor ^{(1) (2)}
 - Vermont South Bay Feasibility Study ⁽¹⁾
 - West Santa Ana Branch ^{(1) (2)}

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project

Call to Action: Second Bucket Defined (cont.)

Second Bucket: Work Evaluated to Defer with the Objective of Staying on Measure M Schedule (*selective list*) – Continued

- Metro Transit Capital Improvements:
 - Bus and Rail Facilities SGR program-stations, vertical transportations, roofs, pavement, etc.
 - Electrification of buses including infrastructure – Silver Line
 - Enterprise Asset Management System
 - Heavy rail vehicle acquisitions
 - Light and heavy railcar modernization and overhaul programs
 - Orange Line grade separation ⁽¹⁾
 - Rail and Bus Operations Center
 - Rail system improvements, yards, cars
 - Rio Hondo Confluence Station
 - Rolling stock midlife and non-revenue equipment programs
 - Wayside SGR program underway on Red and Green Lines – radio, signals, communications, track, special work, OCS, power and the like

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project

Call to Action: Second Bucket Defined (cont.)

Second Bucket: Work Evaluated to Defer with the Objective of Staying on Measure M Schedule (*selective list*) - Continued

- Regional Transit:
 - Antelope Valley Line Enhancements
 - Doran Street ATP
 - LAUS Esplanade / Forecourt
 - McGinley to Roxford Double Track
 - Union Station Master Plan (Phase 2)

- Highway / Street Improvements
 - Adams Flyover
 - Alameda Corridor East grade separation phase 2 ⁽¹⁾
 - Centinela grade separation
 - Countywide Soundwall Noise Studies ⁽¹⁾
 - Eastside Light Rail Access ⁽¹⁾
 - First / Last Mile (PLE and others) ⁽¹⁾
 - I-105 ExpressLanes ⁽¹⁾
 - I-210 Barriers

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project

Call to Action: Second Bucket Defined (cont.)

Second Bucket: Work Evaluated to Defer with the Objective of Staying on Measure M Schedule (*selective list*) - Continued

- I-5 Capacity Enhancements (SR14 to Parker Road) ⁽¹⁾
- I-5 Corridor Improvement I-605 to I-710 ⁽¹⁾
- I-605 Hotspots (incl SR-91 interchange) ⁽¹⁾
- I-710 South Corridor Project ⁽¹⁾
- L.A. River (Bike) Path ⁽¹⁾
- La Canada Soundwalls
- Rail to Rail ATP
- Rail to River ATP
- Rosecrans / Marquardt Grade Separation ⁽¹⁾
- Soundwall Packages 12, 13, and 14 ⁽¹⁾
- South Bay Highway Operational Improvements ⁽¹⁾
- SR-138 new project initiation documents ⁽¹⁾
- SR-57 / SR-60 Interchange Improvements ⁽¹⁾
- SR-71 GAP – Mission Blvd. to San Bernadino County Line ⁽¹⁾

⁽¹⁾ Measure R/M Project

⁽²⁾ Pillar Project

Average Monthly Expense and Cash Outflow (amount in millions)		COVID 19 Projection
1	Revenue Required for Average Monthly Cashflow	\$ 508.0
2		
3	Bucket 1 Required Payment as of May 25, 2020	
4	COVID-19 Expense Very Early Estimate	2.7
5	Payroll	69.3
6	Health and Welfare, Pension, WC, PL/PD	37.1
7	Debt Payment	44.0
8	Subsidies	123.9
9	Utilities, Tax, License	7.0
10	Subtotal Bucket 1 Required Payment	284.0
11		
12	Additional Cash Outflow for Projects:	
13	Bus and Rail Material and Service for Operations	35.3
14		
15	Bucket 1 Projects:	
16	Bus and Rail Fleet Acquisition, Capital SGR	15.0
17	I-5, I138, Sound wall, Caltrans, Reduced Toll Road Maintenance	3.7
18	Estimated Transit Infrastructure bucket 1 project such as:	87.5
19	Crenshaw	
20	Purple Line	
21	Gold line Extension	
22	Div 20 widening	
23	Airport Connector	
24	Regional Connector	
25	LinkUS (Phase 1 only)	
26	Total Bucket 1 Required Payment, Operations and Projects	425.5
27		
28	Revenue Available for Bucket 2 before Revenue Decline *	82.5
29		
30	Monthly Expenditures, Balanced with Monthly Revenue	508.0
31	Projected Revenue Decline	(100.0)
32	Revenue Available to Support Monthly Expenditures	\$ 408.0

Monthly Cashflow

- Projected revenue decline for Sales Tax and Fare Revenue is \$100 million month
- Deferring Bucket 2 projects will save \$82.5 million in cashflow with minimum impact to Bucket 1 projects



Metro Mobility & Affordability Plan (MAP)

- The goal of Metro MAP is to provide a roadmap for the coming decade to deliver voter approved projects and programs, to expand and operate the system efficiently and responsibly while maintaining financial stability
- Metro MAP provides the framework and methodology to identify measures that control costs and enhance revenues
- The impacts of Covid-19 are unprecedented and force us to take extreme cost control measures to conserve resources now, with these measures being dynamically tempered as the economy recovers
- Execution of Metro MAP through the annual budget process

Metro MAP

COVID-19

Post-Recovery

Cost Controls

“Two Buckets”

1. Work to continue
2. All Others not in Bucket 1

- Move projects forward per previous Board approved policy and criteria
- Strengthen cost controls by reviewing scope budget prior to LOP adoption

Revenue

- Allocate and optimize Federal CARES Act funding
- Community Development Block Grants
- FEMA grants
- Prepare for potential Federal and State stimulus packages

- System-generated revenue (advertising, leasing, corporate sponsorship, station naming rights)
- Congestion Pricing
- Fare revenues
- Consider amendments to sales tax ordinances
- Secure additional grants

- **Prepare for potential recurrence of COVID-19**



Next Steps

- Continue to monitor total revenue impacts of COVID-19
- Enforce fiscally responsible cost control measures to ensure a balanced budget
- Continue stakeholder outreach
- Partner with Los Angeles and California governments and aggressively pursue stimulus packages
- Plan for a phased recovery post COVID-19
- May Board adoption of Continuing Resolution
- May Board adoption of CARES allocations
- September Board adoption of FY21 Budget
- Financial impact briefing of COVID-19 to include Metro MAP in 6 months



Approve CARES Act Allocation

APPROVE ITEM # 39 – File # 2020-0325

- **APPROVING** the allocation of CARES Act funding received by Los Angeles County as described in Attachment A
- **APPROVING** fund exchanges of Federal CARES Act funding, as appropriate, with other local funding sources in order to provide administrative efficiencies, optimize and accelerate the distribution of resources.
- **AUTHORIZING** the Chief Executive Officer to negotiate and execute all necessary agreements to implement the recommended support of transit programs countywide.

Budget Continuing Resolution

APPROVE ITEM # 13 – File #2020-0310

- **Continuing Resolution** for FY21 Budget in May 2020 Board cycle, to include the following recommendations:
 - Adopt a continuing resolution to extend FY20 budget authorization for one quarter into FY21 until September 2020 when Fiscal Year 2021 (FY21) budget is considered for Board adoption
 - Authorize CEO to execute the adopted continuing resolution through first quarter of FY21 until October 1, 2020
 - Authorize the extension of all annual Operating and Fare subsidy Memorandums of Understanding (MOUs) subject to available funds until such time as the FY21 budget is adopted

FY21 Revised Budget Development Process

Date	Action
May 2020	Adoption of Continuing Resolution
August 2020	Stakeholder Outreach
September 1, 2020	FY21 Draft Budget Publication
September 16, 2020	Public Hearing
September 24, 2020	FY21 Budget Adoption
December 2020	Midyear Budget Amendment (as needed)



Board Report

File #: 2020-0325, File Type: Policy

Agenda Number: 39.

REGULAR BOARD MEETING MAY 28, 2020

SUBJECT: CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY (CARES) ACT FUNDING

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING the allocation of CARES Act funding received by Los Angeles County as described in Attachment A.
- B. APPROVING fund exchanges of Federal CARES Act funding, as appropriate, with other local funding sources in order to provide administrative efficiencies, optimize and accelerate the distribution of resources.
- C. AUTHORIZING the Chief Executive Officer to negotiate and execute all necessary agreements to implement the recommended support of transit programs countywide.

ISSUE

Los Angeles County and the world are facing an unprecedented challenge as we adapt to the new limitations on our daily lives due to the COVID-19 pandemic. In response to the financial shortfalls in nearly every sector of the American economy, Congress approved and signed into law the CARES Act on March 27, 2020.

The CARES Act delivers COVID-19 relief funds to a wide range of American industries to provide fast and direct economic assistance in this time of crisis. As the Regional Transportation Planning Entity (RTPE) for Los Angeles County, Metro is responsible for allocating transportation funding provided under the CARES Act to transit agencies in the county.

BACKGROUND

With the implementation of the “Safer at Home” order in March, nonessential businesses closed, and all residents were directed to leave their homes only for essential activities. Consumer spending has plummeted and transit ridership and fare revenues have dropped dramatically resulting in an estimated \$1.8 billion reduction in resources available to operate and maintain Los Angeles County’s

transit mobility network.

DISCUSSION

The revenues received from local and state derived sales tax measures, the basis of our investment in mobility, are estimated to decline by a total of \$1.060 billion over FY20 adopted budget and FY21 pre-COVID levels. And, as noted above, these reductions, when combined with additional losses from fare revenues, tolls, advertising and other system revenues, and the increased costs of response to the coronavirus, the impact to Los Angeles County’s transportation resources is estimated at \$1.8 billion. These unprecedented revenue losses affect every component of Los Angeles County’s transportation investment program, including Metro’s bus and rail operations, municipal transit operators, the 89 local jurisdictions throughout Los Angeles County, local community based operators, regional operators such as Metrolink and Access Services, Metro’s Measure R and Measure M Capital Programs, and other partnerships throughout the county.

CARES Act Appropriation

The CARES Act provides relief funding to “prevent, prepare for, and respond to” the COVID-19 pandemic. The Federal Transit Administration (FTA) allocated a total of \$1.068 billion to Los Angeles County under the existing FTA Section 5307 Urbanized Area Formula Grants program.

“Funds provided under this heading are available for the **operating expenses of transit agencies related to the response to a coronavirus** public health emergency as described in section 319 of the Public Health Service Act, including, beginning on January 20, 2020, **reimbursement for operating costs to maintain service and lost revenue due to the coronavirus public health emergency**, including the purchase of personal protective equipment, and paying the administrative leave of operations personnel due to reductions in service...”

Costs eligible for reimbursement are broadly defined as “operating expenses of transit agencies related to the response to a coronavirus public health emergency” including reimbursement for operating costs to maintain service and lost revenue, and support transit workers jobs.

The FTA apportions funding by Urbanized Zone Area (UZA). The total CARES Act apportionment for each of the three UZAs in Los Angeles County, Lancaster-Palmdale and Santa Clarita, shown in the table below. For a detailed listing of the proposed allocation of the total \$1.068 billion in CARES Act funding, see Attachment A.

Urban Zone Area (UZA) (\$Millions)	Grand Total
CARES Act Apportionment	\$ 1,068.0
Less - Direct Apportionments (Lancaster-Palmdale, Santa Clarita, Metro)	(69.9)
Funds Available for Countywide Allocation	\$ 998.1

* Excludes 5311 funding of est. \$1.36 million to AVTA for service to rural areas in the North County (contingent on final allocations from CalTrans)

CARES ALLOCATION

In order to provide CARES Act relief to transit operators throughout Los Angeles County, Metro staff has proposed that the CARES allocation is based on offsetting and mitigating the loss of sales tax revenues, fares and other revenues. The goal of the CARES allocations is to ensure, as broadly as is feasible, that support is provided to all transit operators in the County.

The initial priority is to estimate, address, and mitigate reductions in sales tax revenue for FY20 and FY21. The goal of this phase is to ensure that funding for transit operations throughout the county is maintained and supported at pre-COVID funding levels, as intended under the CARES Act. Each operator will receive their full FY20 funding allocation as adopted by the Metro Board. Each operator is also proposed to receive funding equal to levels originally estimated for FY21, prior to the onset of the COVID-19 pandemic. As a result, each operator is expected to be “held harmless” in relation to the reduction of sales tax revenues anticipated for FY20 and FY21.

However, recognizing operators will also see significant reductions in fare and other system revenues, staff is proposing that additional supplemental amounts be distributed to help mitigate, and provide some measure of relief, for losses of other revenues and/or cost increases as a result of the pandemic.

The proposed allocation would provide CARES Act funding to support Los Angeles County transit operators, including Metrolink, Access Services, local paratransit, dial-a-ride, community shuttle operating partners and to support regional transit programs. The intent of the CARES allocation is to fairly distribute the limited funding available to ensure the residents and visitors to Los Angeles County retain access to mobility.

Step 1 - Recover Loss in Sales Tax Revenues

First, CARES Act funding will be allocated to recover the estimated loss in sales tax revenues for each transit operator to satisfy the CARES Act’s intent to maintain service by providing funding levels that were expected prior to the onset of the COVID-19 pandemic. Amounts allocated will be based on the difference between approved FY20 budget and estimated pre-COVID FY21 funding levels with the projected losses in sales taxes for FY20 and FY21.

Step 2 - Provide Supplemental Relief Funding

In Step 2, the proposed method will provide additional funding to help mitigate losses in fare revenues and increased costs related to COVID-19. To address the differing needs of transit operators, supplemental relief funding is proposed using various strategies:

- For Metro and Municipal Operators, the supplemental amount is equal to and in addition to the sales tax revenue loss as calculated in Step 1.
- For Tier 2 and Small Operators, the supplemental amount is equal to ½ of their total annual allocation. This is in addition to Step 1 in recovering their losses in sales tax revenues. This method also provides more funds to this group than it would by doubling the sales tax revenue

loss.

- For Metrolink and Access Services, the supplemental amount is equal to the estimated loss in fare revenues over FY20 and FY21 for each agency. This is in addition to Step 1 in recovering their losses in sales tax revenues.

Step 3 - Regional Needs

The third and final step is to retain some level of funding for countywide transit activities performed by Metro on behalf of the region. In this category, the remaining CARES Act funding will be maintained by Metro to fund the regional fare collection system, regional subsidies such as the Low Income Fare is Easy (LIFE) and Vanpool programs, regional transit hubs such as Union Station and El Monte Station, and congestion management programs.

See Attachment B for a description of the CARES allocations and estimated sales tax losses.

Letters of Support & Concurrence

The recommended allocations for CARES Act funding has been reviewed with the various stakeholder groups that represent transit operators in the region. Stakeholders include:

1. Los Angeles County of Municipal Operators Association (LACMOA)
 - Representing 16 Transit Operators
2. Tier 2 Operators Program
 - Representing 4 Operators
3. Local Transit Systems Subcommittee (LTSS) Small Operators
 - Representing 47 Community Operators
4. Access Services
5. Southern California Regional Rail Authority (SCRRA) - Metrolink
6. Palos Verdes Peninsula Transit Authority
7. City of Avalon
8. City of Glendora
9. Torrance Transit

All stakeholders have provided letters of support and concurrence for the CARES allocations, see Attachment C.

Reimbursement Process and Eligible Expenses

The terms of the CARES Act allow 100% reimbursement for eligible expenses incurred after January 20, 2020. Claimants must submit eligible expenses for reimbursement in accordance with the current Federal claims process. Expenses eligible for reimbursement are:

- Transit operations, capital, and planning expenses eligible under Section 5307
- Costs to operate, maintain, and manage a public transit system (i.e. driver salaries, fuel, pension, benefits, self-insurance, personal protective equipment, and cleaning supplies)
- Capital costs (i.e. purchasing, leasing, constructing, maintaining, or repairing transit system)

- facilities, rolling stock, and equipment)
- Administrative leave for workers due to reduced service or quarantine
- Reimbursement of lost fare revenue
- Paratransit or COVID-19 related charter service (i.e. meal delivery)

Funding Exchanges and Necessary Agreements

Municipal Operators are direct recipients of these funds and upon submittal of the allocation tables to Southern California Association of Governments (SCAG), operators can initiate the grant approval process to begin submitting invoices for reimbursement. In order to expedite the disbursement of relief funding to other agencies, fund exchanges may be necessary between CARES Act funds and other locally eligible sources. Metro will work with these agencies to finalize necessary details on the administration of these funds.

DETERMINATION OF SAFETY IMPACT

Adoption of this item will provide funding for increased safety efforts by providing COVID-19 relief funding to Los Angeles County transit agencies impacted by the pandemic.

FINANCIAL IMPACT

The total \$1.068 billion in Federal CARES Act funding will be distributed to transit agencies throughout Los Angeles County as shown in Attachment A.

Impact to Budget

Sales tax revenues from all sources are projected to decline by more than \$1 billion through the end of FY21. Additional Metro specific revenue losses including fares, toll revenues, and other system generated revenues are estimated to decline an additional \$350 million to \$400 million. Combined with cost increases as a result of the COVID-19 pandemic, the negative impact to Metro is estimated to be approximately \$1.8 billion.

Use of the CARES Act funds will help mitigate, but not eliminate the funding gap from January 2020 through June 2021. Staff will continue to provide the Board with additional information on the steps necessary to mitigate these additional losses as part of developing the FY21 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

1. Provide high-quality mobility options that enable people to spend less time traveling;
2. Deliver outstanding trip experiences for all users of the transportation system;
3. Enhance communities and lives through mobility and access to opportunity;
4. Transform Los Angeles County through regional collaboration and national leadership; and
5. Provide responsive, accountable, and trustworthy governance within the Metro organization

ALTERNATIVES CONSIDERED

The Board may choose not to approve the staff's proposed CARES Act funding allocation method and instruct staff to allocate funds through some other Board directed process. This is not recommended, as this will cause significant delays in the receipt of funds for all transit operators and agencies in Los Angeles County.

Finally, as detailed on the attached letters of support, a consensus of agreement has been reached across the full spectrum of the County's transit operating partners. (See Attachment D).

NEXT STEPS

Should the Board approve staff's recommendation, staff will:

- Provide notification to SCAG and the FTA of the proposed distributions to allow affected recipients to initiate the grant process and begin drawing down CARES Act funding.
- Continue to update the Board on the impacts of the COVID-19 pandemic to Metro and the region.
- Work with operators and agencies on final administrative requirements and fund distribution details

ATTACHMENTS

- A. Detailed CARES Allocation Amounts By Transit Operator/Agency
- B. Description of CARES Allocation and Estimated Sales Tax Losses
- C. Letters of Support and Concurrence
 - 1. Los Angeles County of Municipal Operators Association (LACMOA)
 - Representing 16 Transit Operators
 - 2. Tier 2 Operators Program
 - Representing 4 Operators
 - 3. Local Transit Systems Subcommittee (LTSS) Small Operators
 - Representing 47 Community Operators
 - 4. Access Services
 - 5. Southern California Regional Rail Authority (SCRRA) - Metrolink
 - 6. Palos Verdes Peninsula Transit Authority
 - 7. City of Avalon
 - 8. City of Glendora
 - 9. Torrance Transit

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