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Agenda - Final

Wednesday, May 20, 2020

11:00 AM

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Planning and Programming Committee

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Ara Najarian

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(ALSO APPLIES TO BOARD COMMITTEES)

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- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER

ROLL CALL

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](#)

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](#)

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 \(2\)](#)

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](#)

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](#)

**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.

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](#)

(ALSO ON EXECUTIVE MANAGEMENT COMMITTEE)

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](#)

SUBJECT: GENERAL PUBLIC COMMENT

[2020-0336](#)

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 #: 2020-0255, **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)

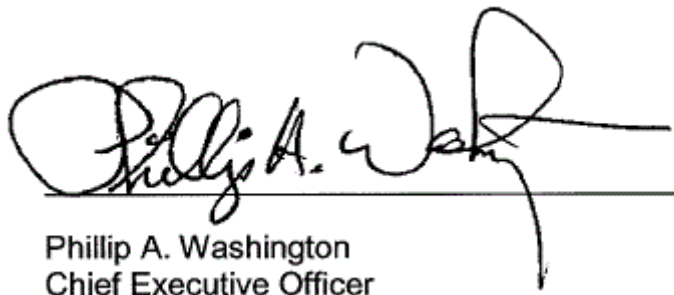
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Phillip A. Washington
Chief Executive Officer



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
3rd Floor Board Room
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.

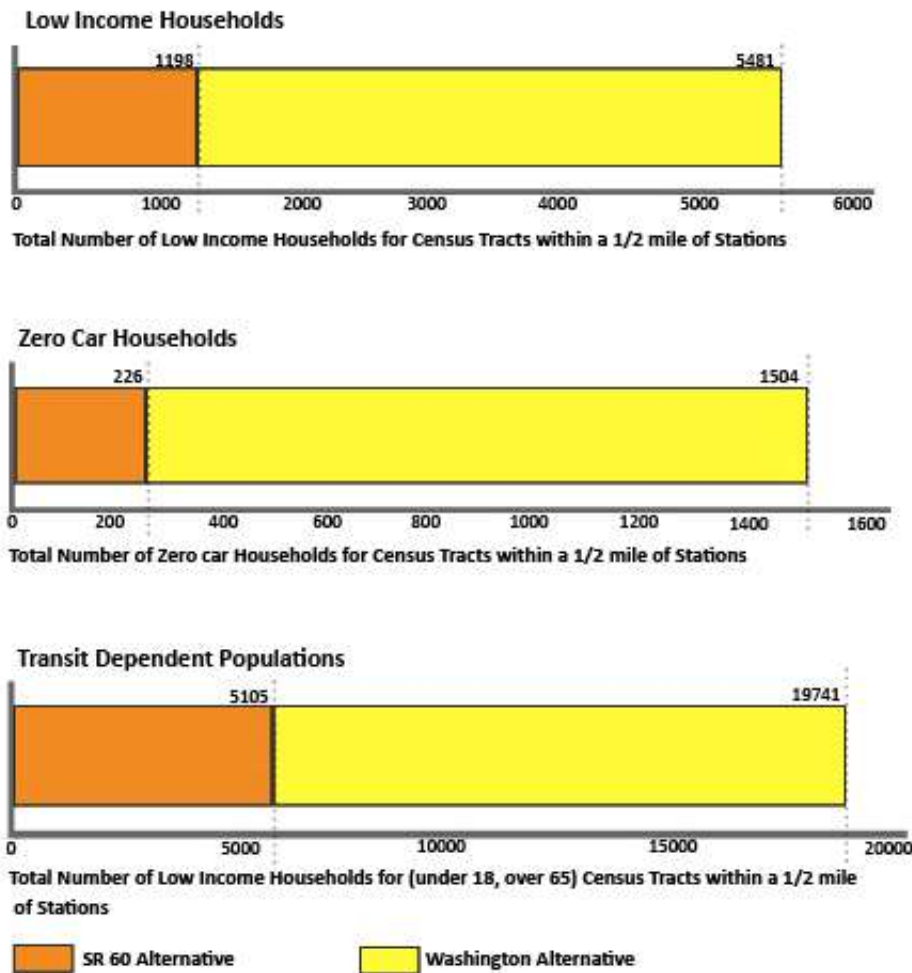
Equity Platform

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.

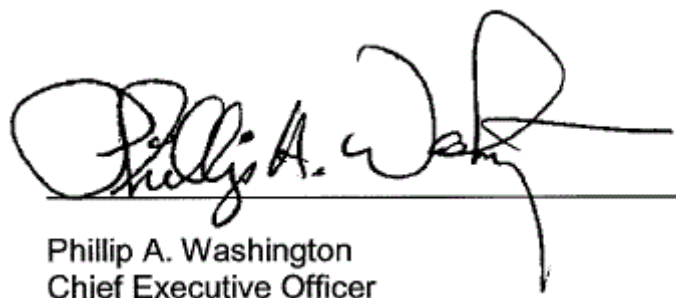
Upon Board approval of the feasibility study, a scope of work will be developed immediately for technical work and community engagement, and Metro staff will report back in six months on the progress of the feasibility study.

ATTACHMENTS

Attachment A - SR 60 and Combined Alternatives Issues and Constraints Report
Attachment B - Eastside Transit Corridor Phase 2 Title IV Service Equity Analysis

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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 #: 2020-0276, 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.

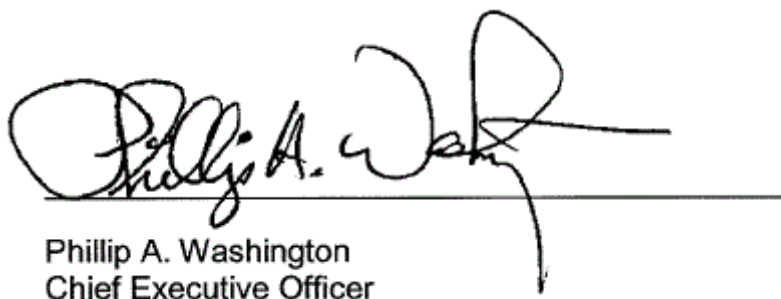
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Isidro Panuco, Sr. Manager Transportation Planning, (213) 418-3208
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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

**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.

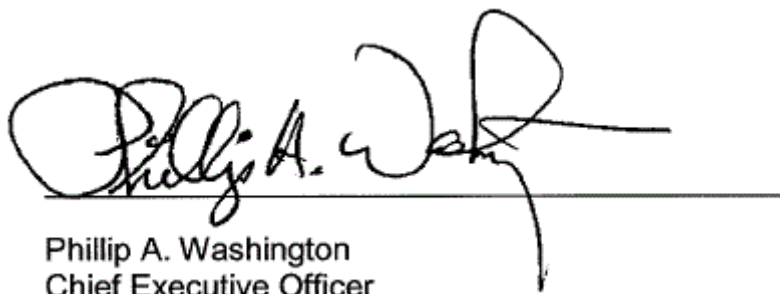
After the possible adoption of the 2020 LRTP, staff will begin work on an action plan, in the form of a Short Range Transportation Plan (SRTP). The SRTP would recommend near-term implementation steps over a ten- to fifteen-year timeframe, and allow for any needed recalibrations from the current COVID-19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

ATTACHMENTS

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

Prepared by: Rena Lum, Senior Director, Countywide Planning & Development, (213) 922-6963
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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.

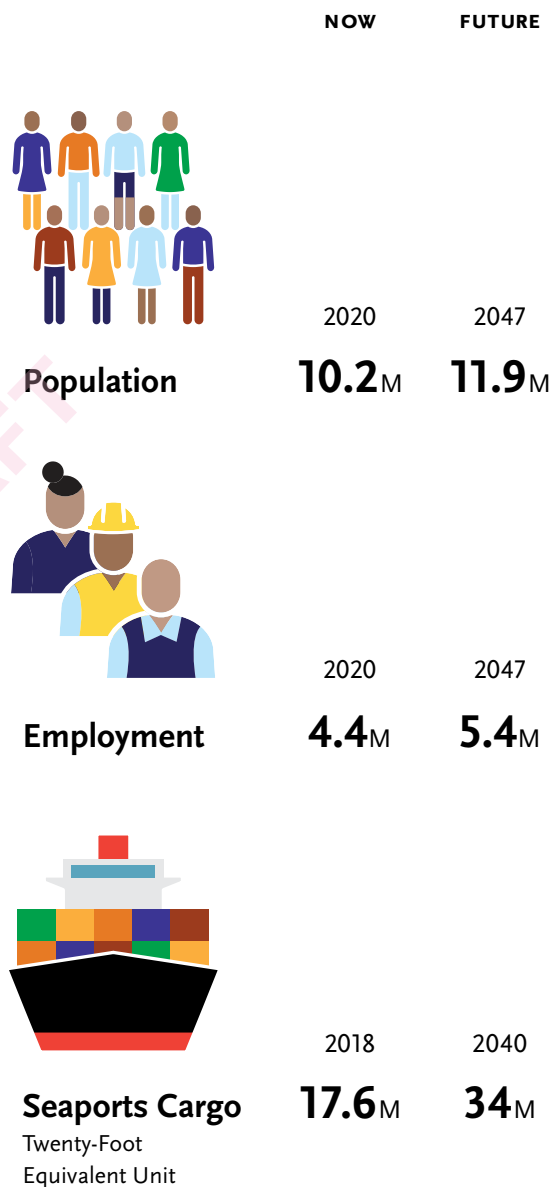
In 2020, LA County is at a pivotal point in its history. We have made great strides in economic development and community revitalization, welcomed new sports teams and stadiums, and attracted the 2028 Olympics and other major events. However, our region faces many challenges in the years ahead, including 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.

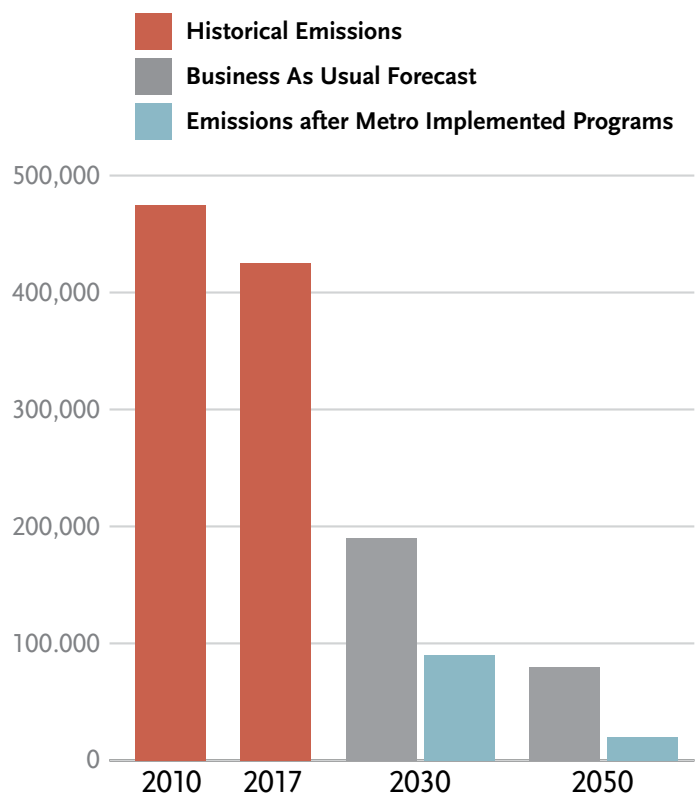
Metro commits to reducing our agency greenhouse gas emissions:

- > **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.

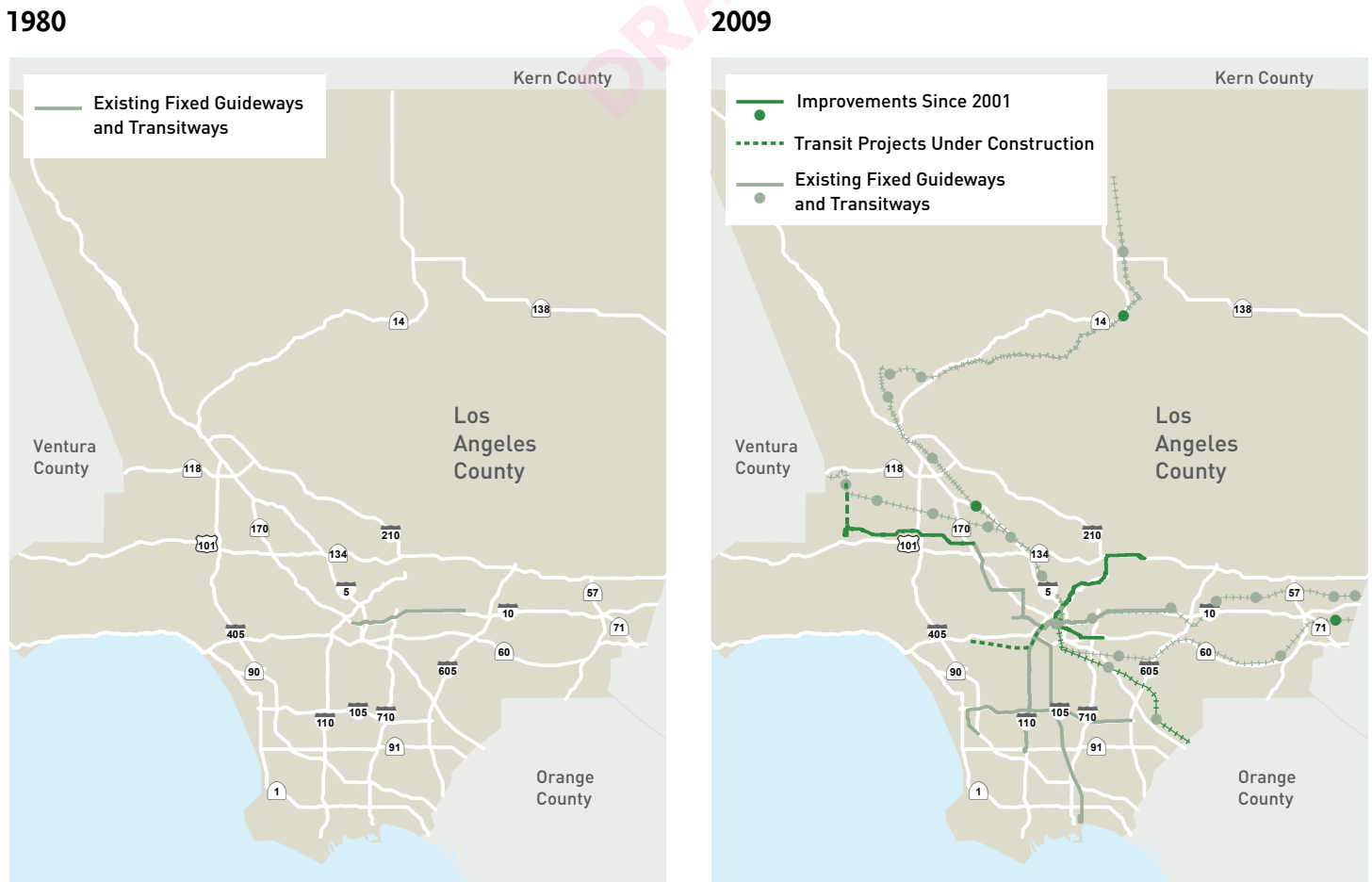
Over the coming decades, Metro will be faced with numerous, complex decisions about how to address these challenges. Significant investments are needed to maintain our aging roadway and transit systems, while managing and modernizing the system to prioritize safe and reliable transportation services. 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.

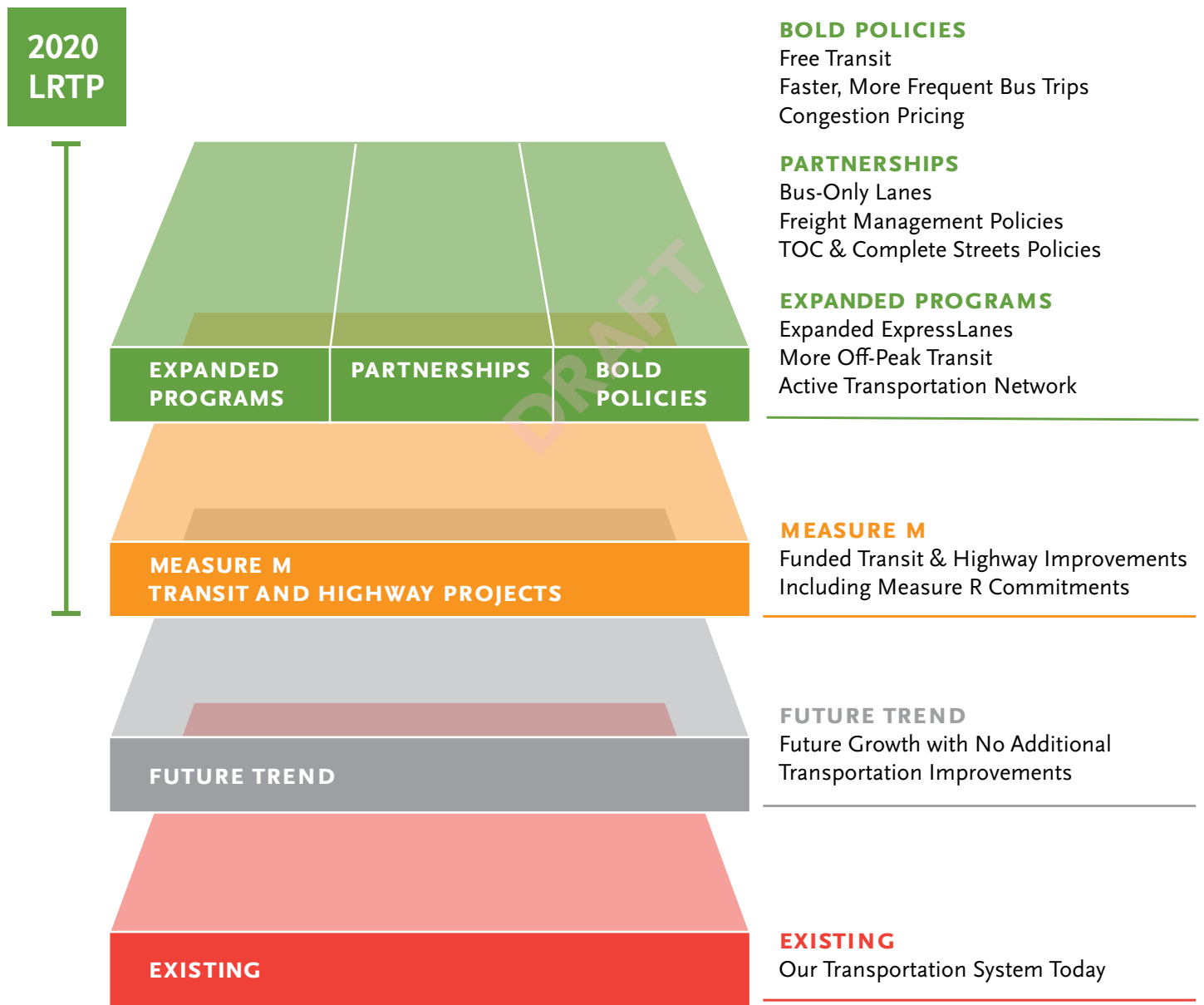
The 2020 LRTP includes current and future projects, programs and policies that Metro will undertake in collaboration with our regional partners. It includes all major transit and highway projects with committed funding or partially committed funding, existing programs and policies, collaboration with 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

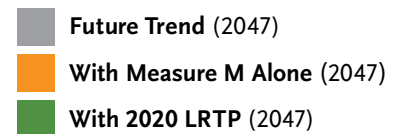
The 2020 Long Range Transportation Plan has the potential to deliver significant mobility benefits to the region through the major capital projects, programs and bold policies.

> 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**.

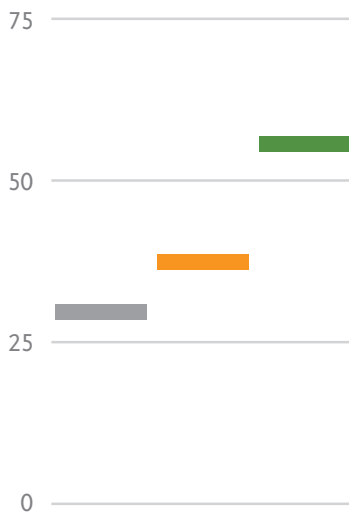
Figure 5

Benefits of the 2020 LRTP



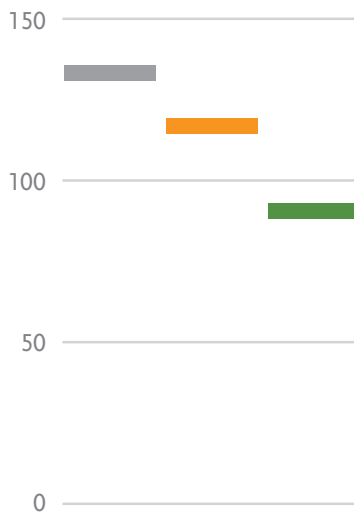
Transit Trips
annual trips per capita

↑
81%



Vehicle Hours of Delay
annual hours per capita

↓
31%



Greenhouse Gas Emissions
annual million metric tons

↓
19%

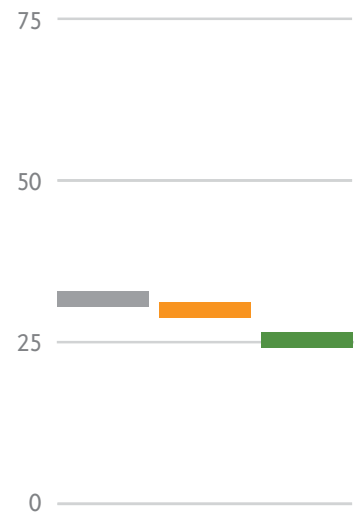
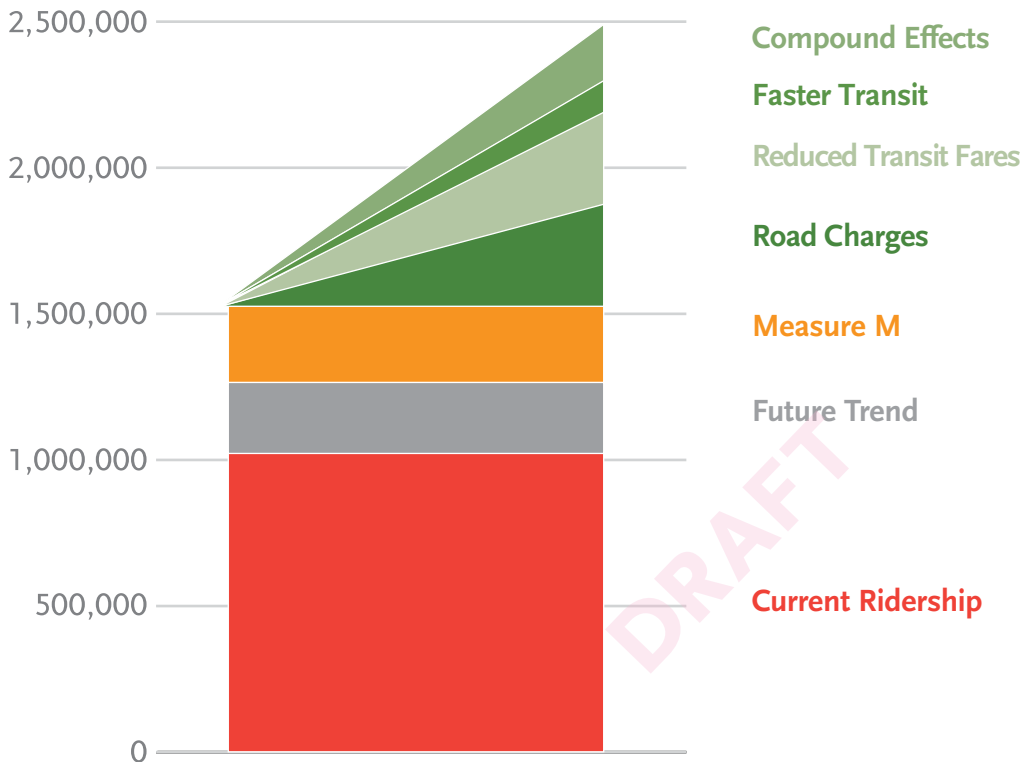


Figure 6

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 LRTP 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.

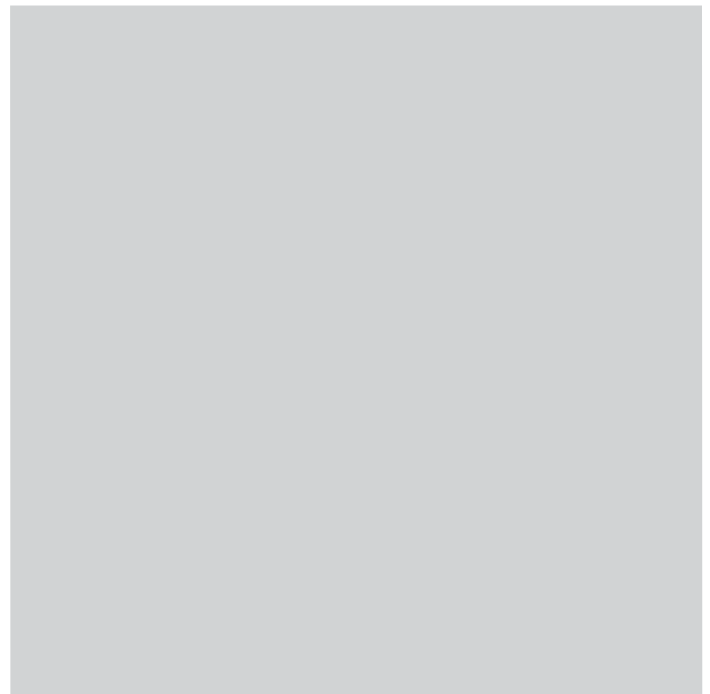


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Transit Investment

Figure 8

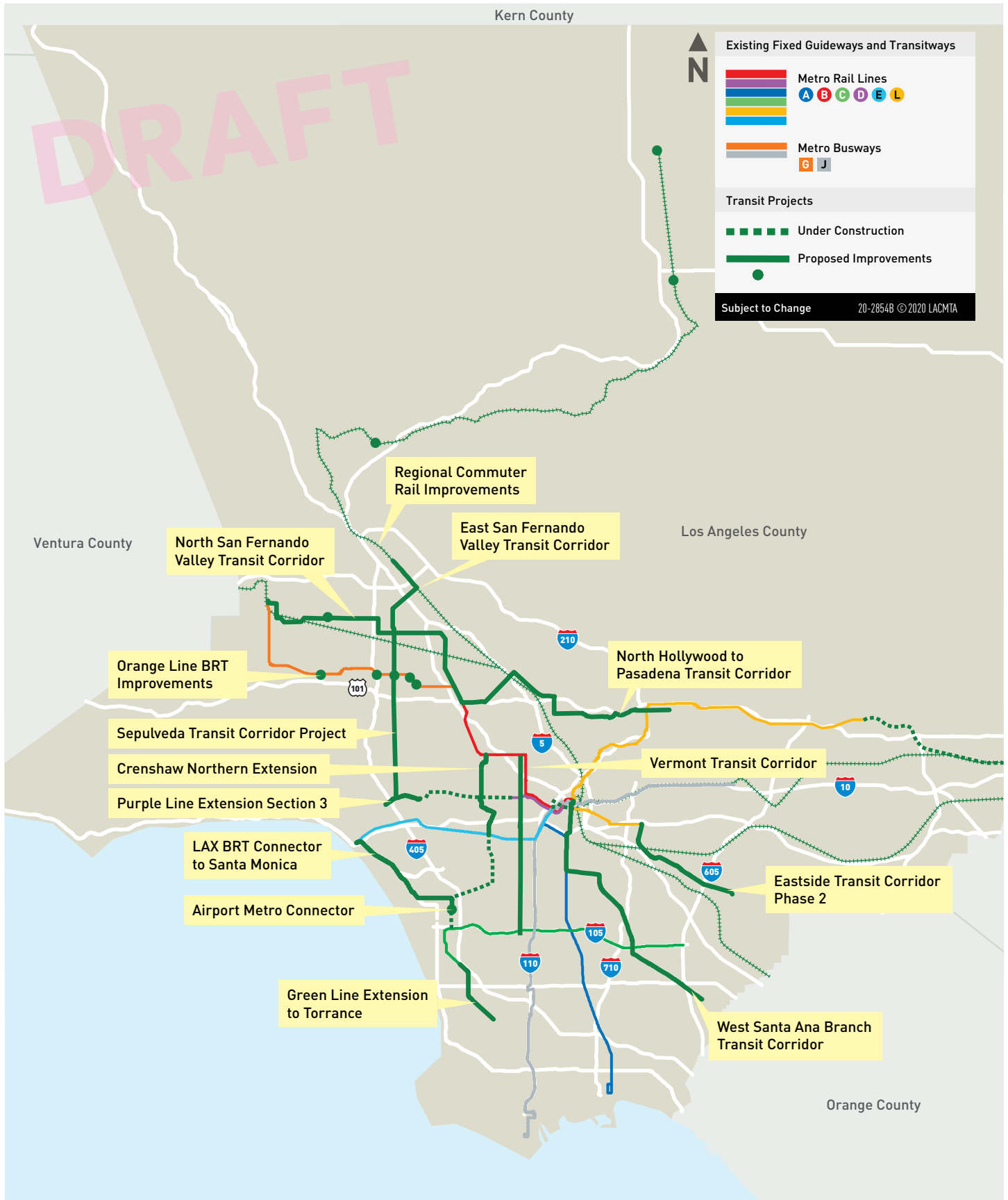
Major Transit Project		
	\$ IN MILLIONS	OPEN YEAR
Crenshaw/LAX Transit Project (LRT)	2,058	2021
Regional Connector Transit Project	1,756	2022
D Line (Purple) Extension		
Section 1 (Wilshire/Western to Wilshire/La Cienega)	2,779	2023
Section 2 (Wilshire/La Cienega to Century City/Constellation)	2,441	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.

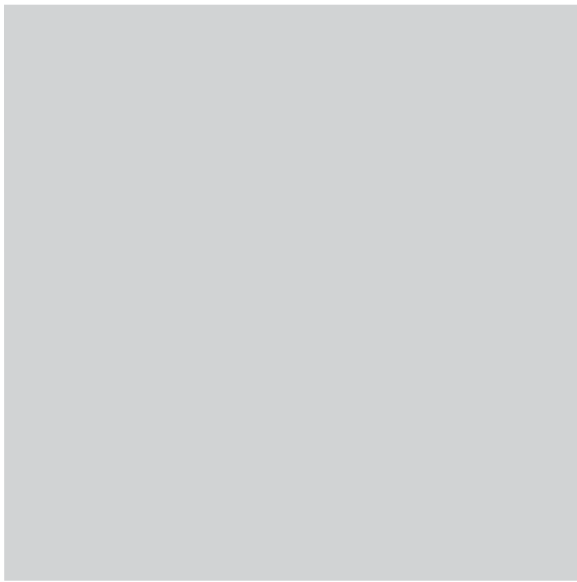


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Bus-Only Lanes

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.

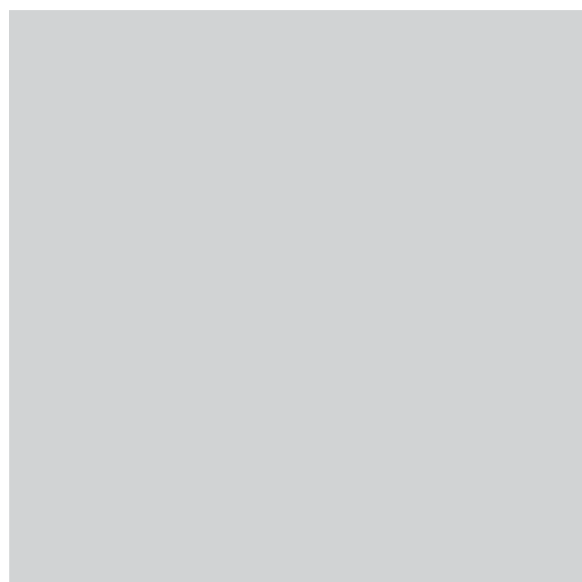


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How Women Travel

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.

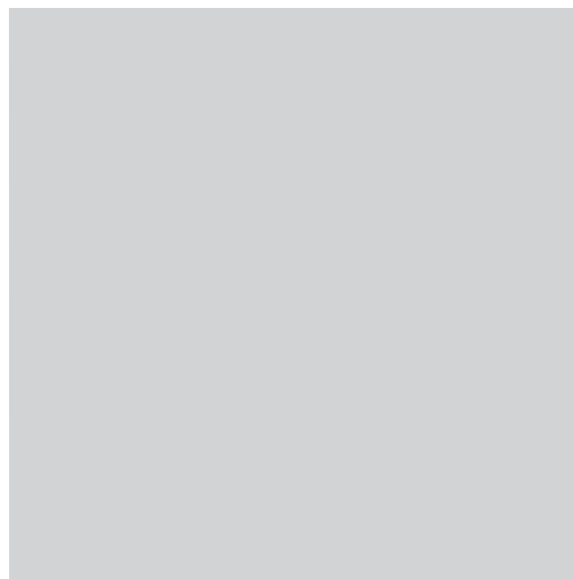


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Strategy 1.7: Enhance transportation system security and build public trust

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	●			●			

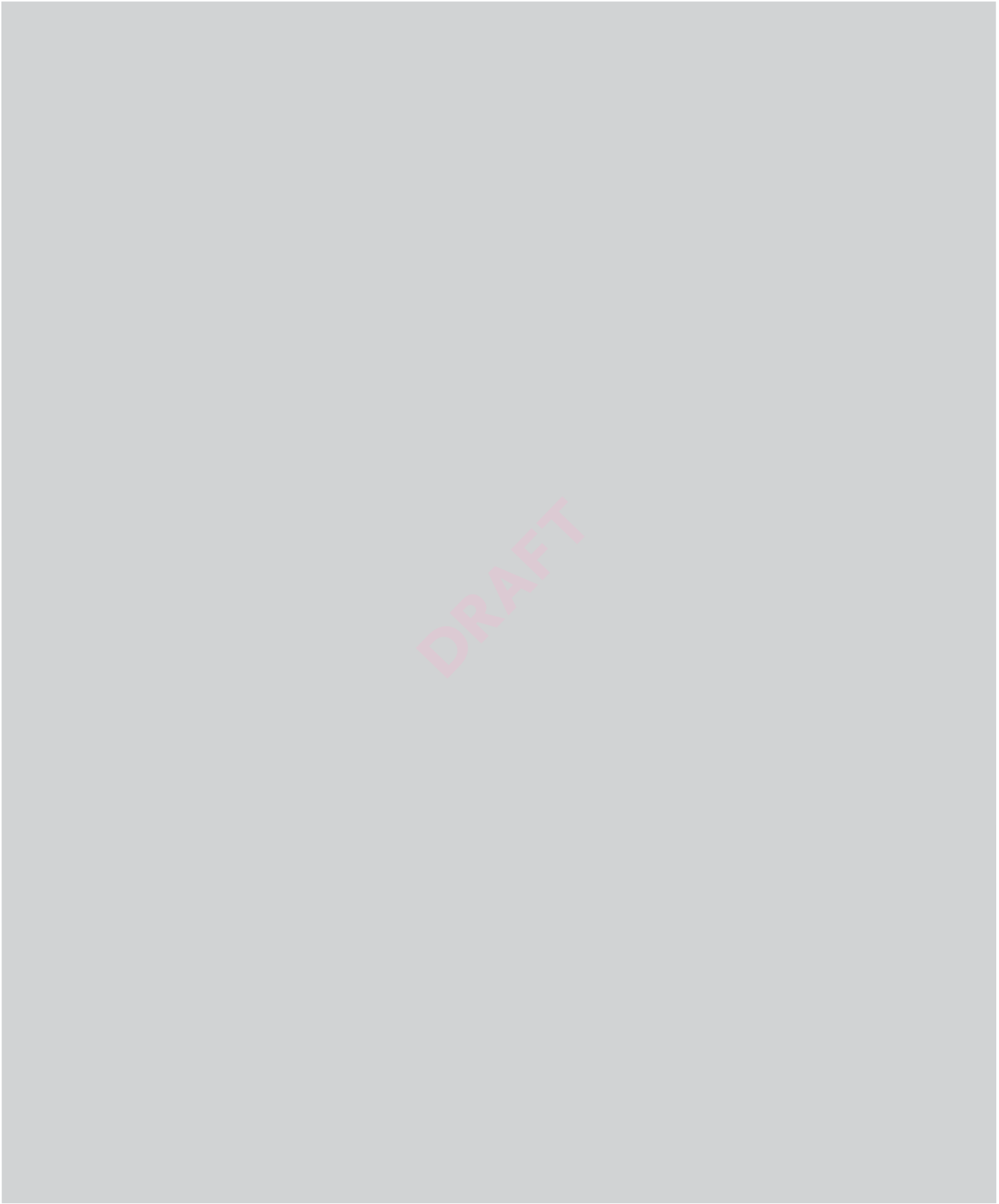


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More transit trips mean more opportunity.

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

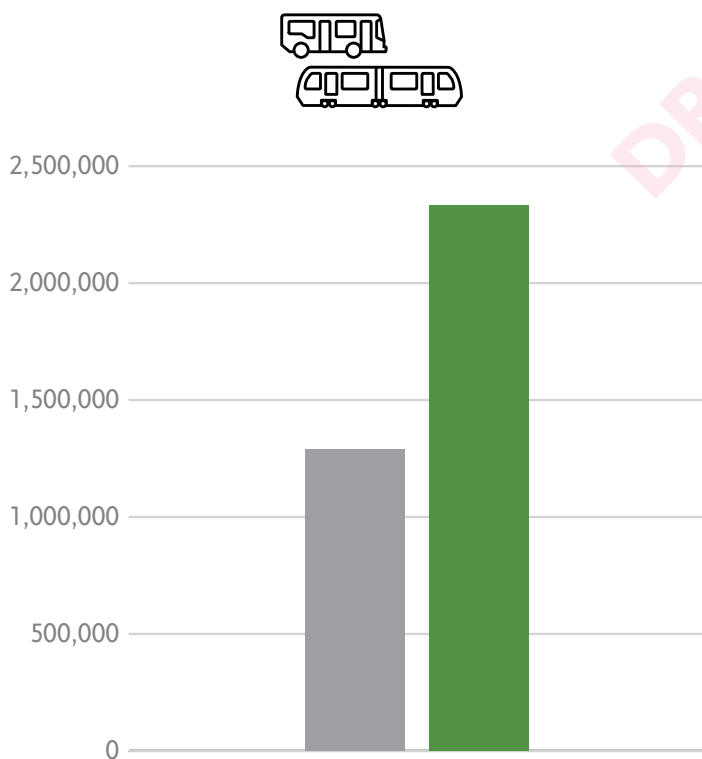
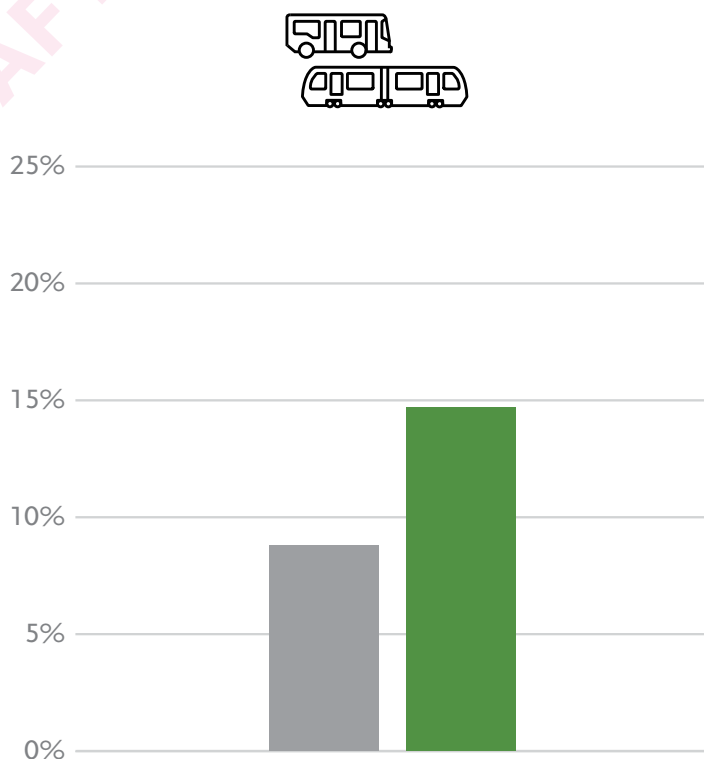


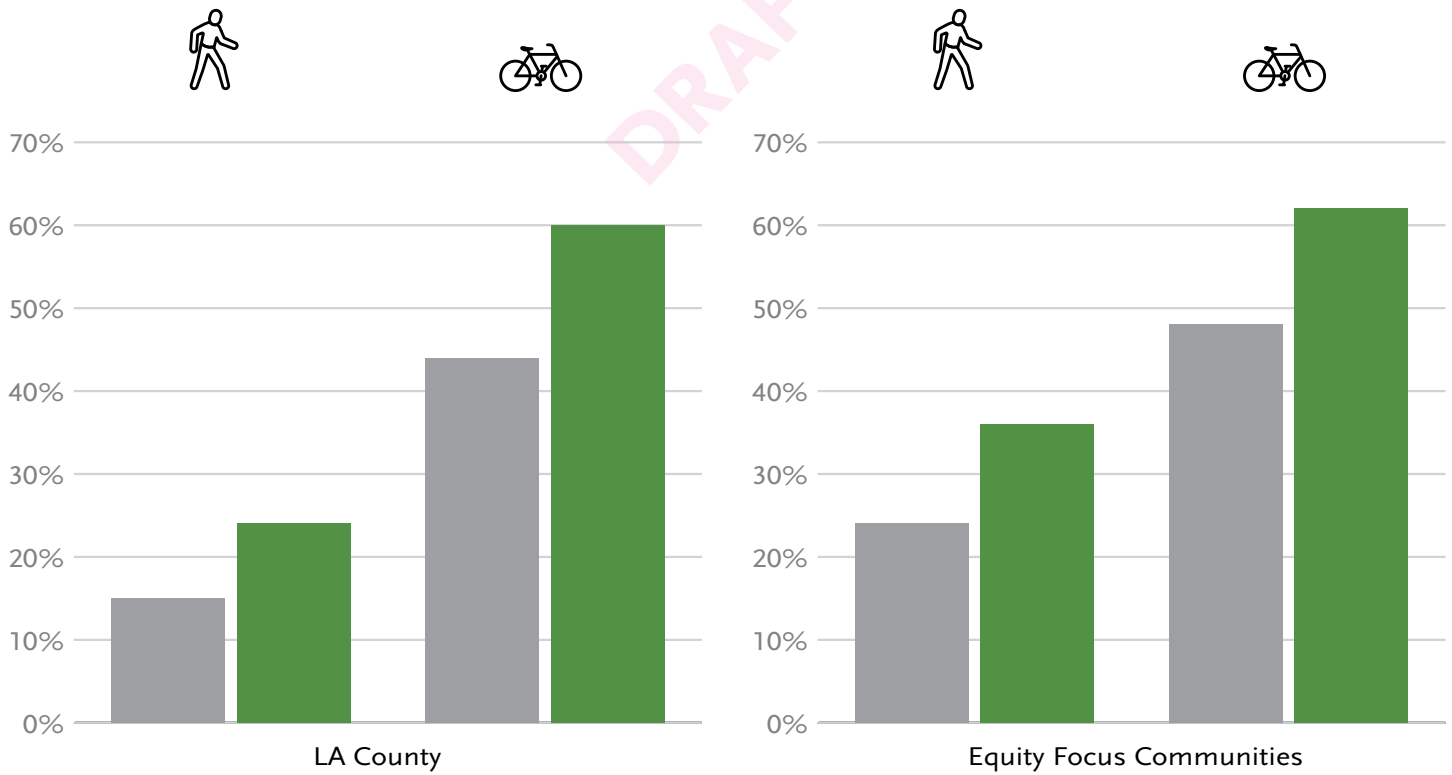
Figure 11
Transit Mode Share for Commute Trips



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



**OUR
NEXT**

LA* is

less congestion.

DRAFT

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.

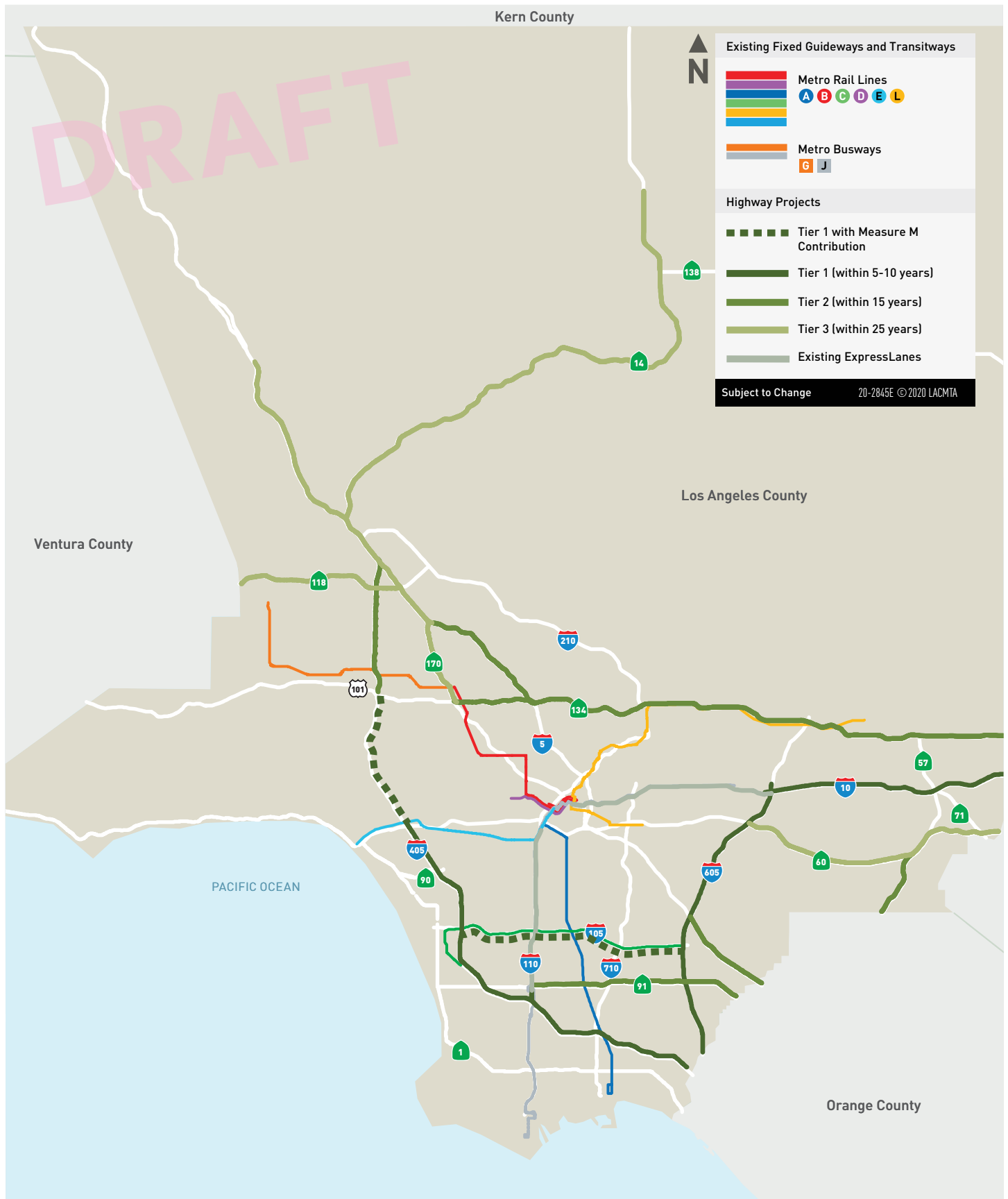
The 2020 LRTP includes more than **\$105 billion** in roadway investments, including operations and maintenance, active transportation and multi-modal projects, support for local cities and subregions, as well as more than **\$22 billion** for major highway investments.

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.

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.

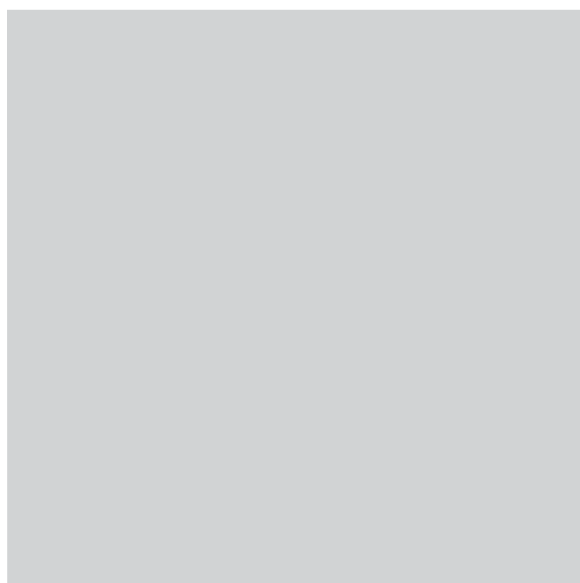


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ExpressLanes Expansion

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.



Image to come

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.



Image to come

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	●				●		

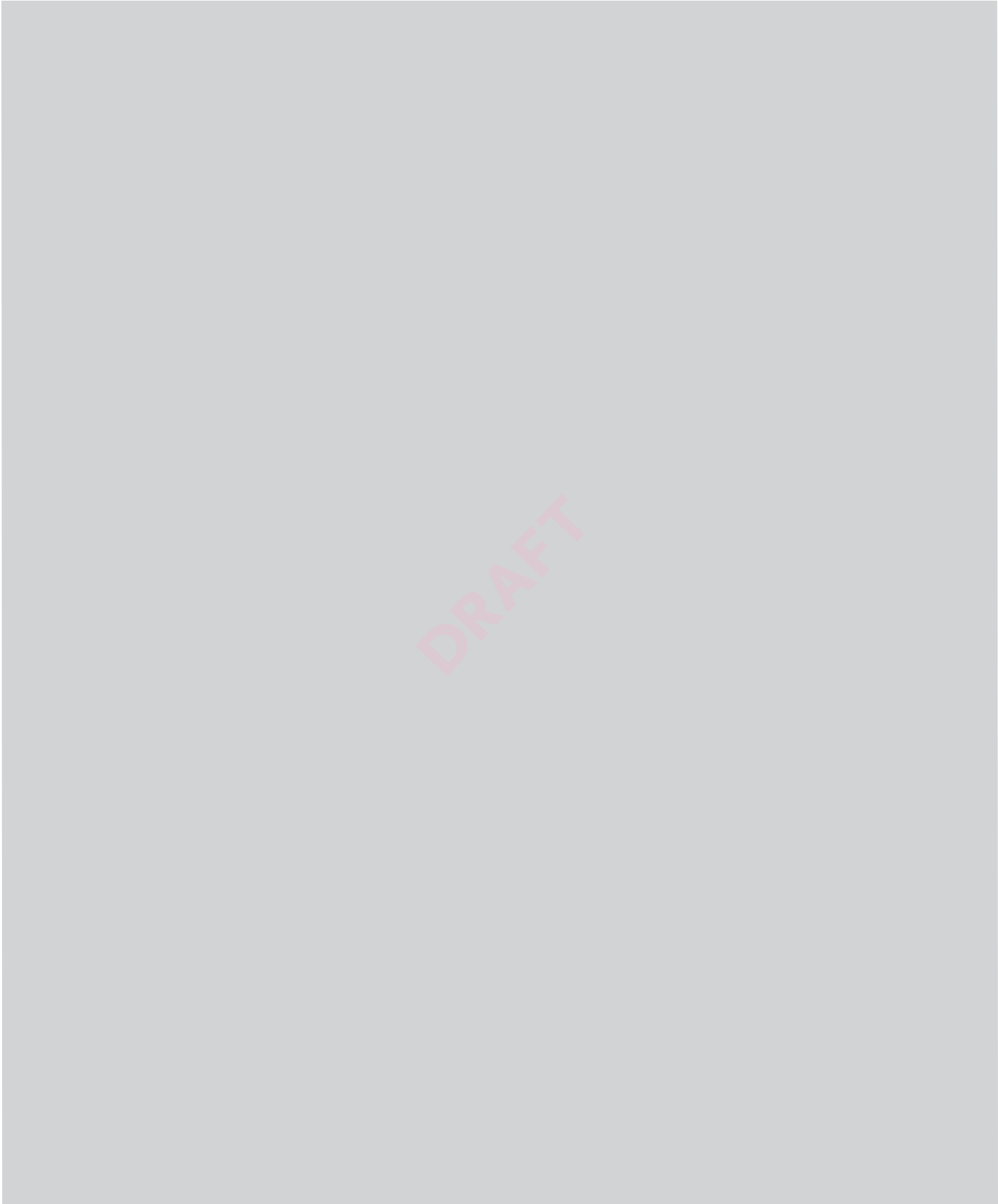


Image to come

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

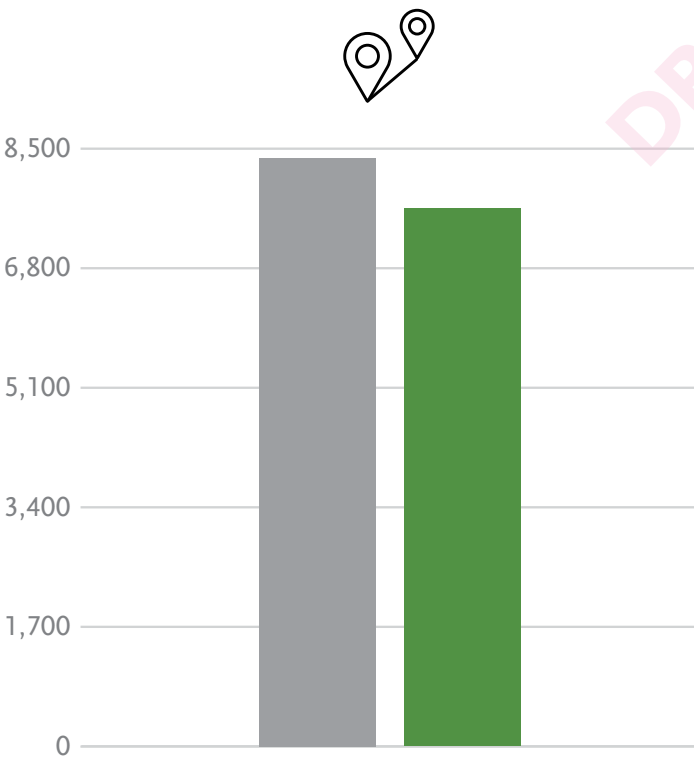
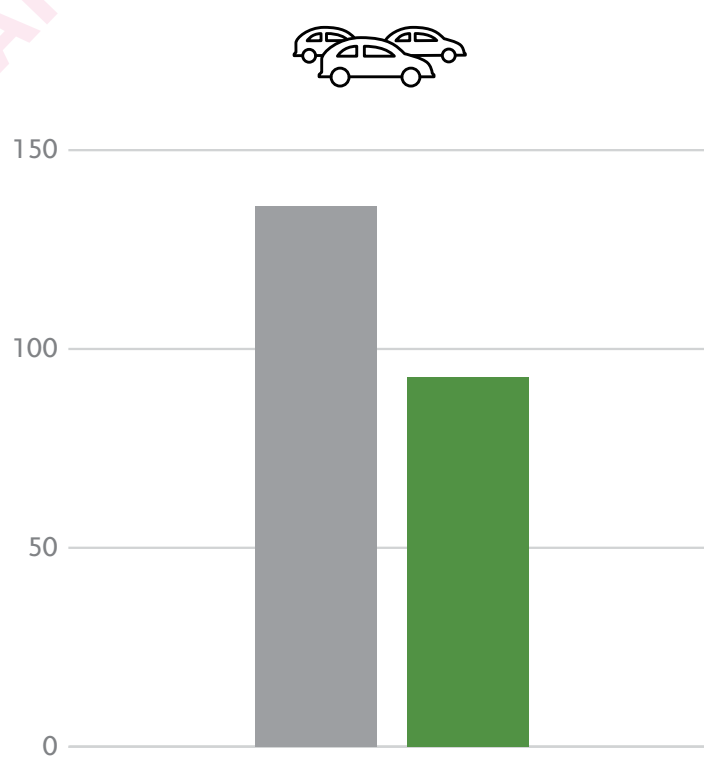


Figure 17

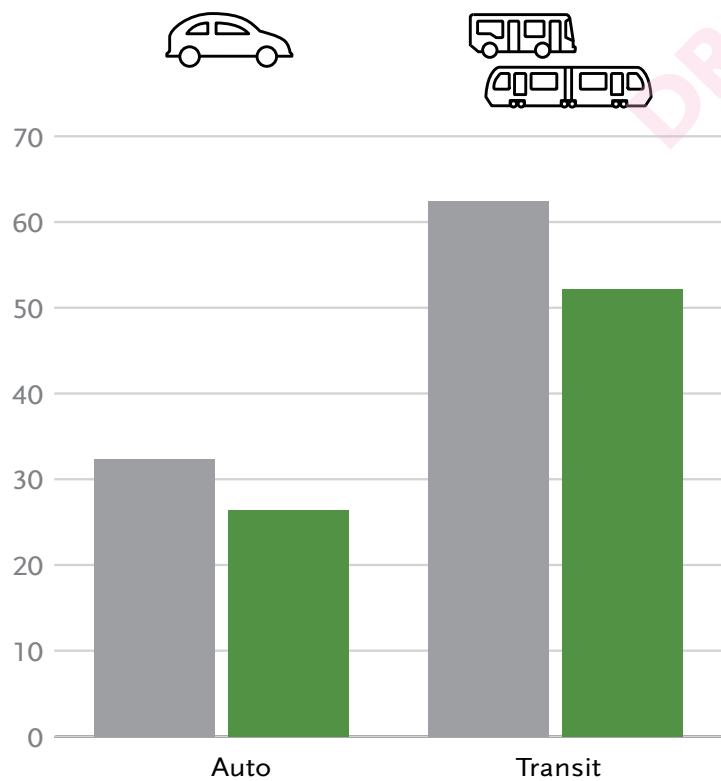
Annual Vehicle Hours of Delay Per Capita



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)



**OUR
NEXT**

LA* is

complete streets.

DRAFT

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.

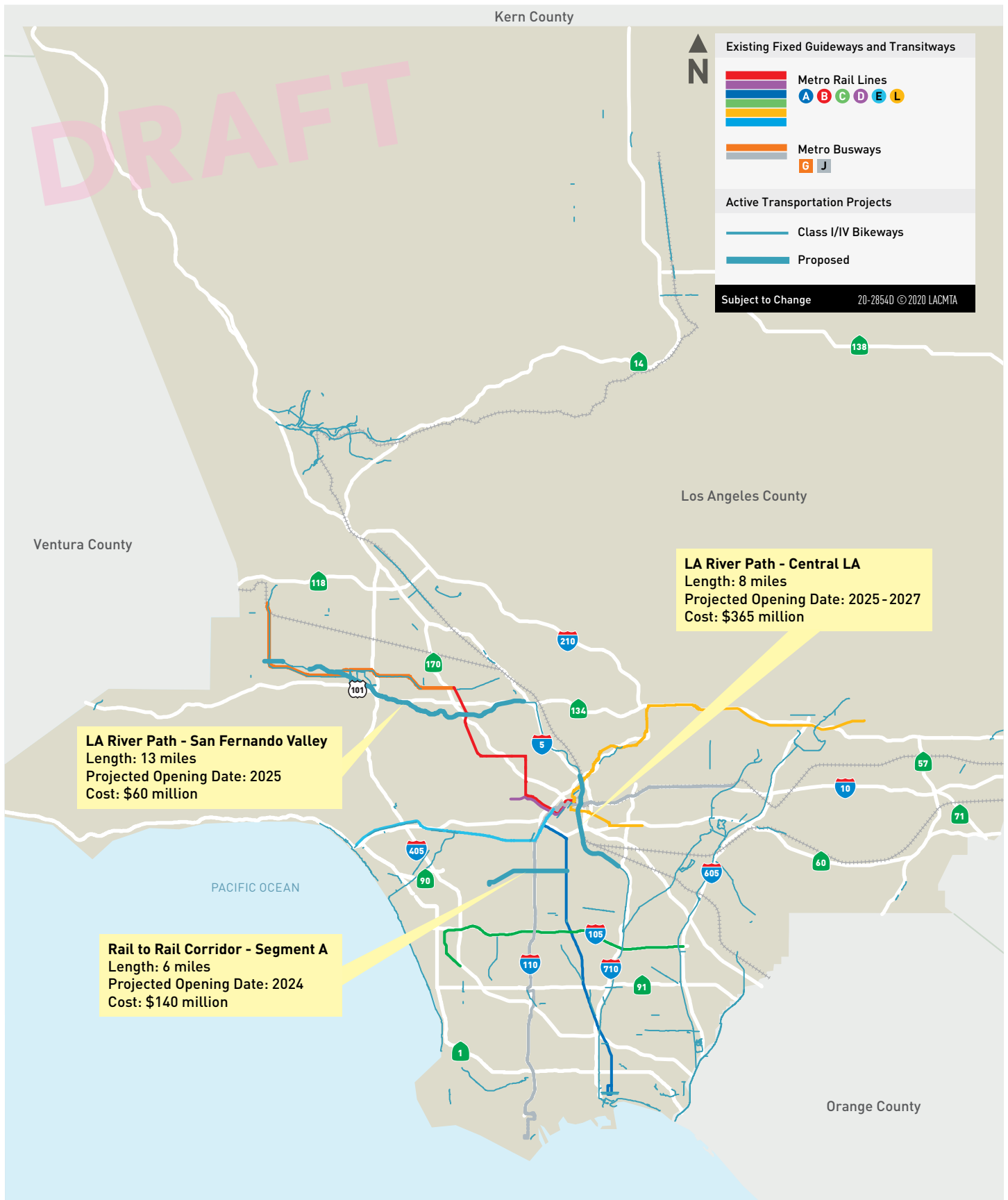
The 2020 LRTP includes close to \$7 billion in funding for active transportation projects, including major facilities and bicycle and pedestrian programs at the city level. There are several major multi-use active transportation facilities funded in the LRTP, including:

- > **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.

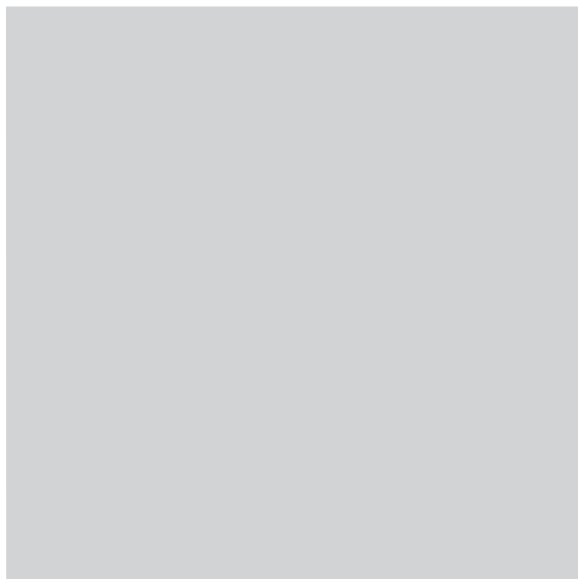


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First/Last Mile Strategic Plan

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.

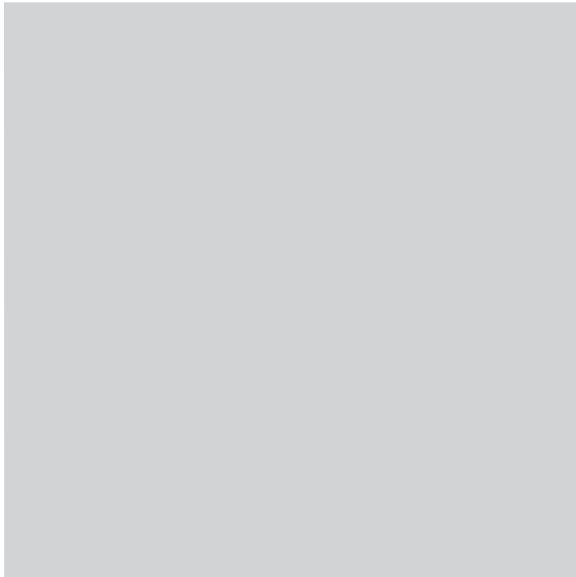


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Zero-Emission Fleet

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

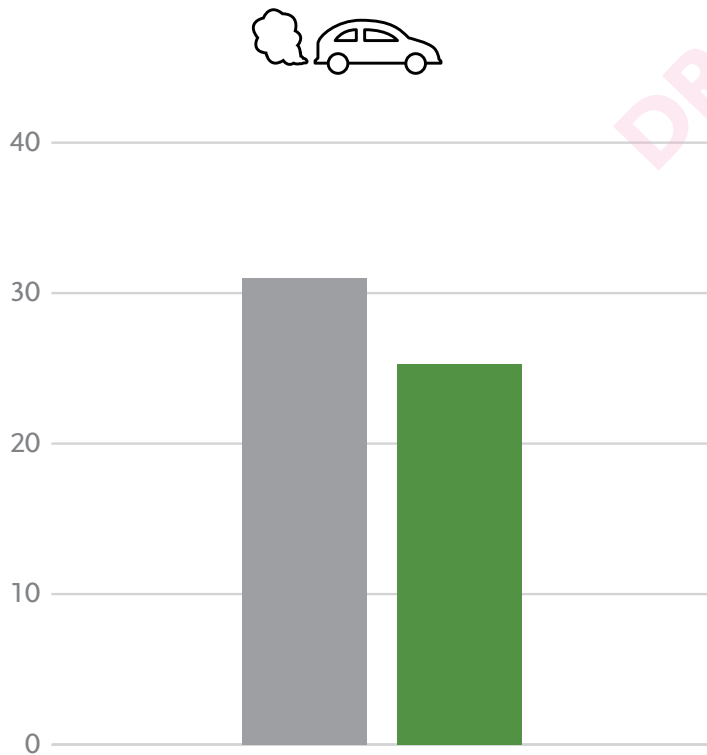
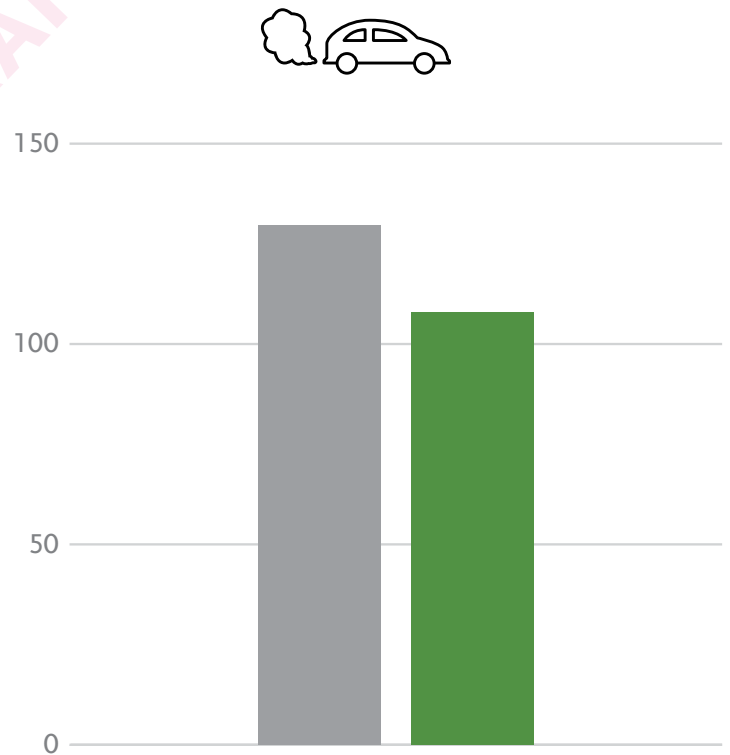


Figure 21

Annual Tons Particulate Matter (PM10)



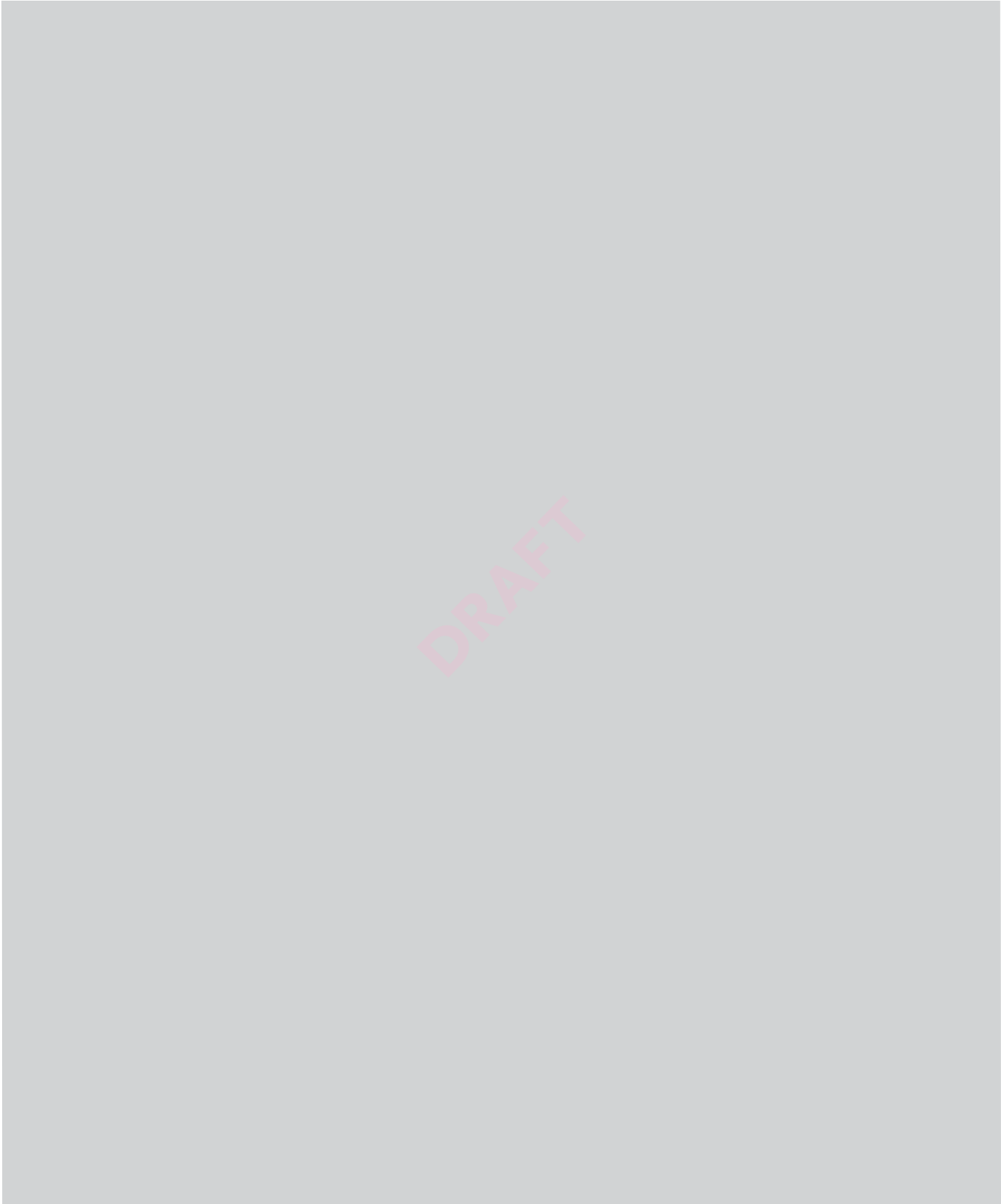


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**OUR
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LA* *is access
to opportunity.***

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.

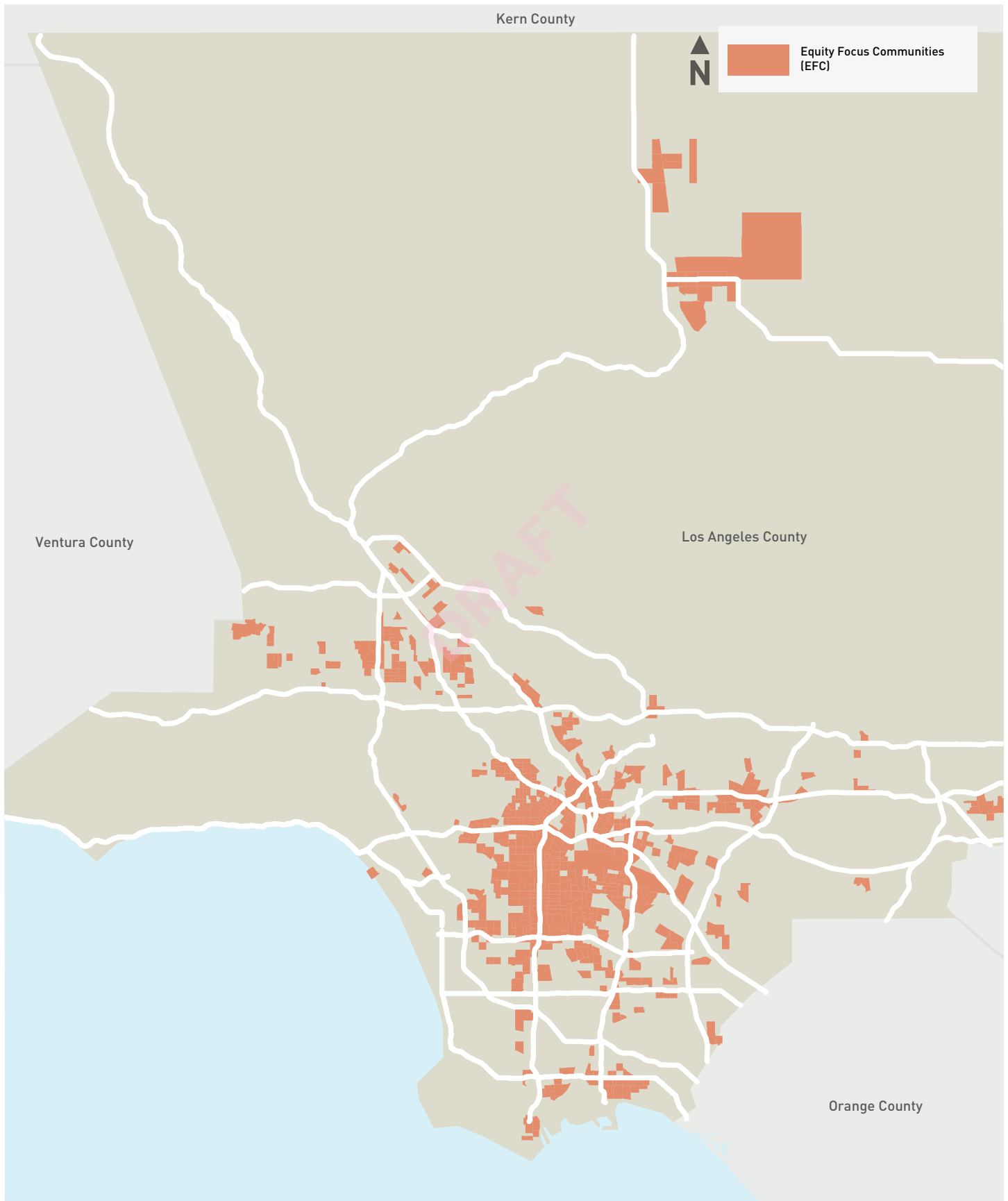
The LRTP was developed in accordance with these pillars, through robust public engagement, as well as clearly defining our goals and performance measures for tracking our effort to deliver better future access and mobility. This process and evaluation will ensure that Metro is transparent in our activities,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

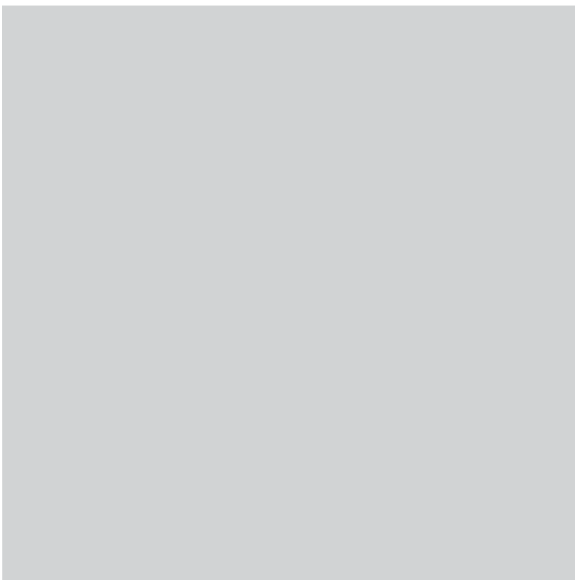


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Reduced Transit Fares

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.

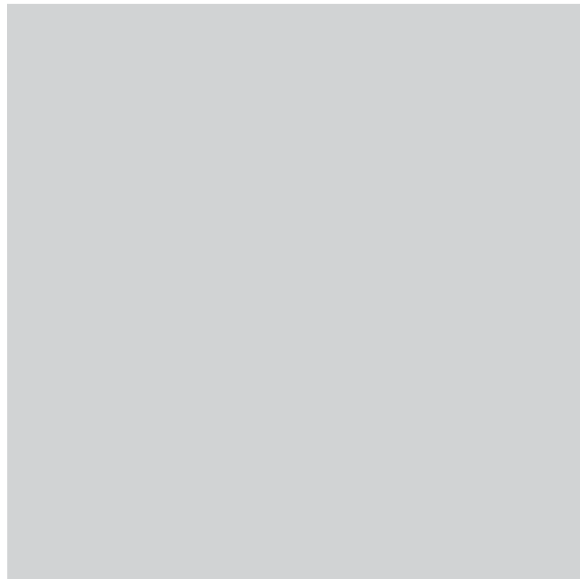


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Supporting Local Business

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.

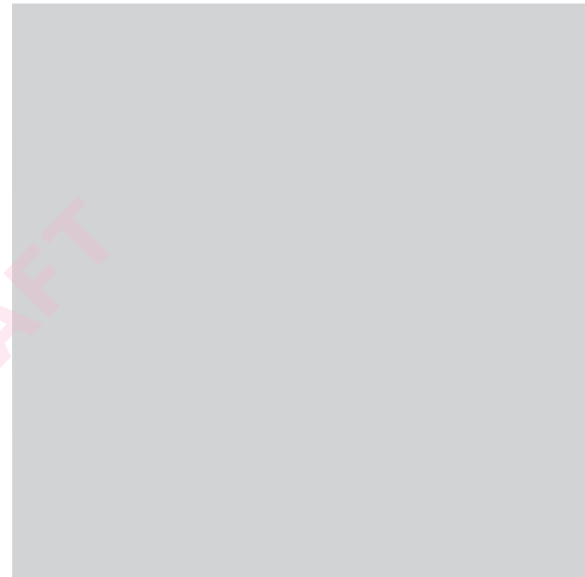


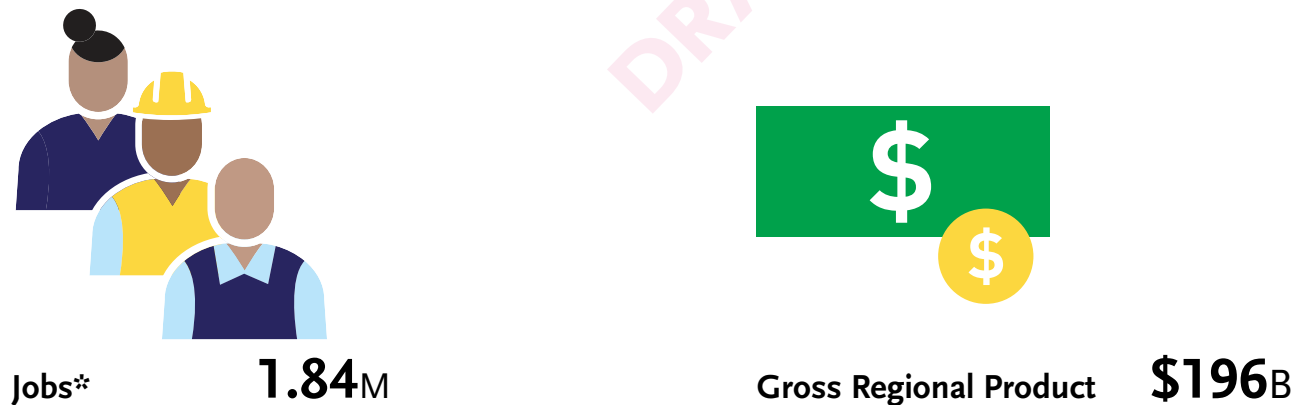
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Our plan creates jobs and boosts LA's economic health.

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



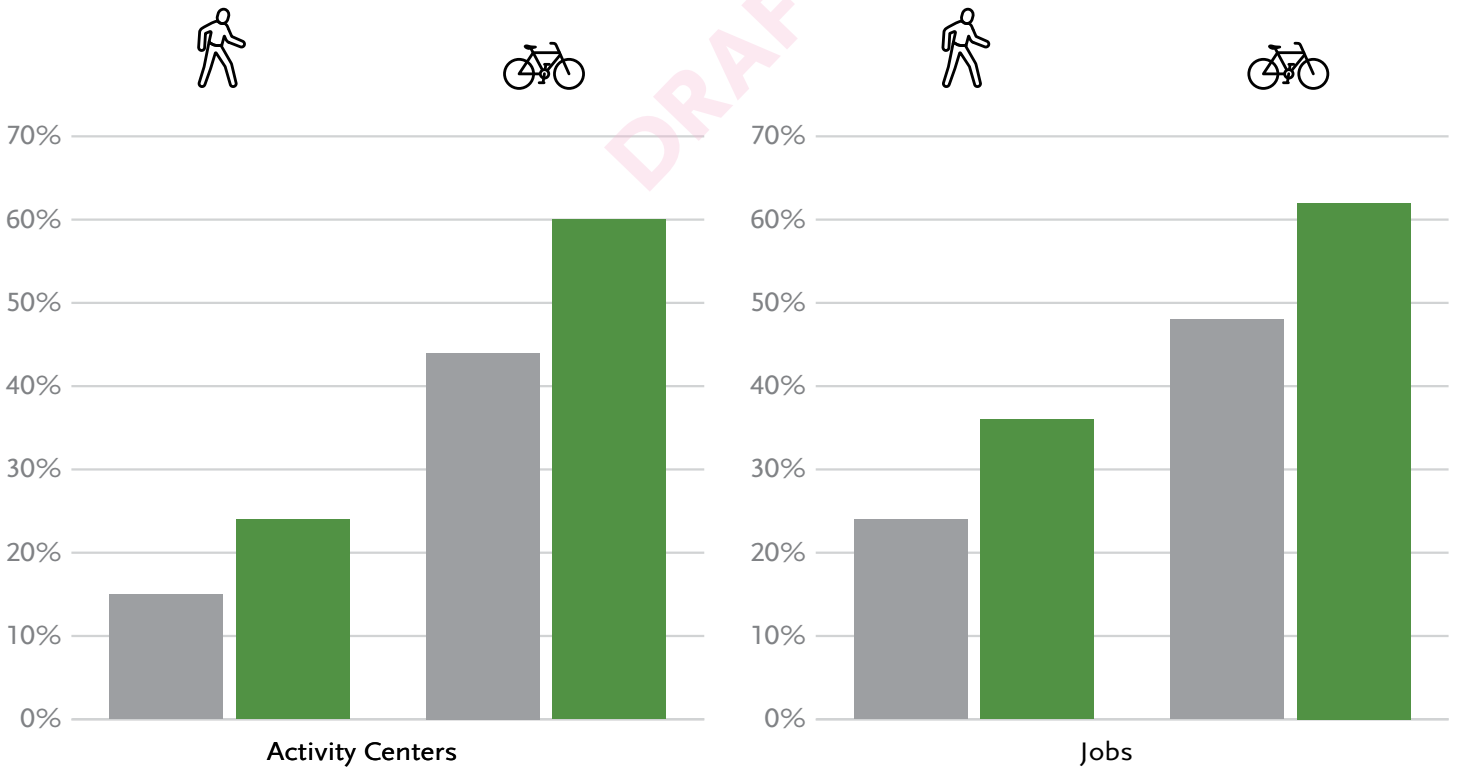
*A single year of employment for one individual

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.

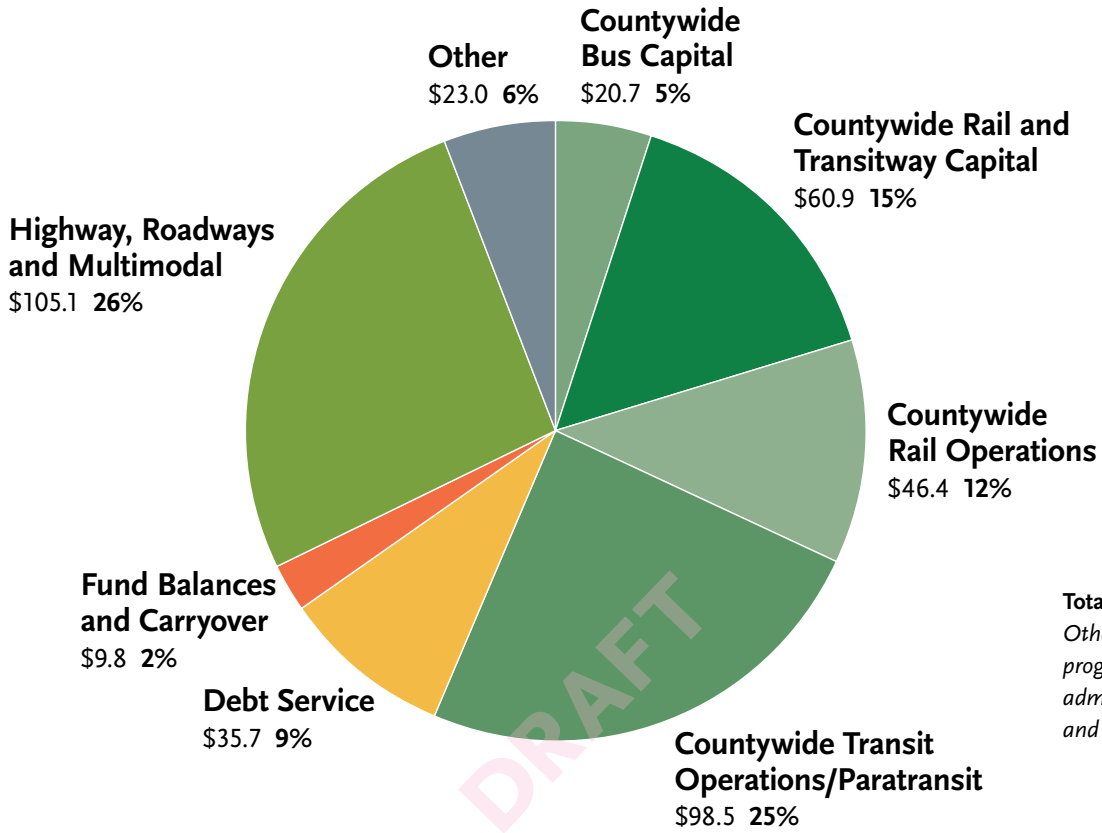
While the expanded programs, partnerships and policies of the 2020 LRTP represent additional expenditures, these will be balanced by future revenues anticipated through future policies, such as ExpressLanes and congestion pricing.

Figure 26

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

Total Uses

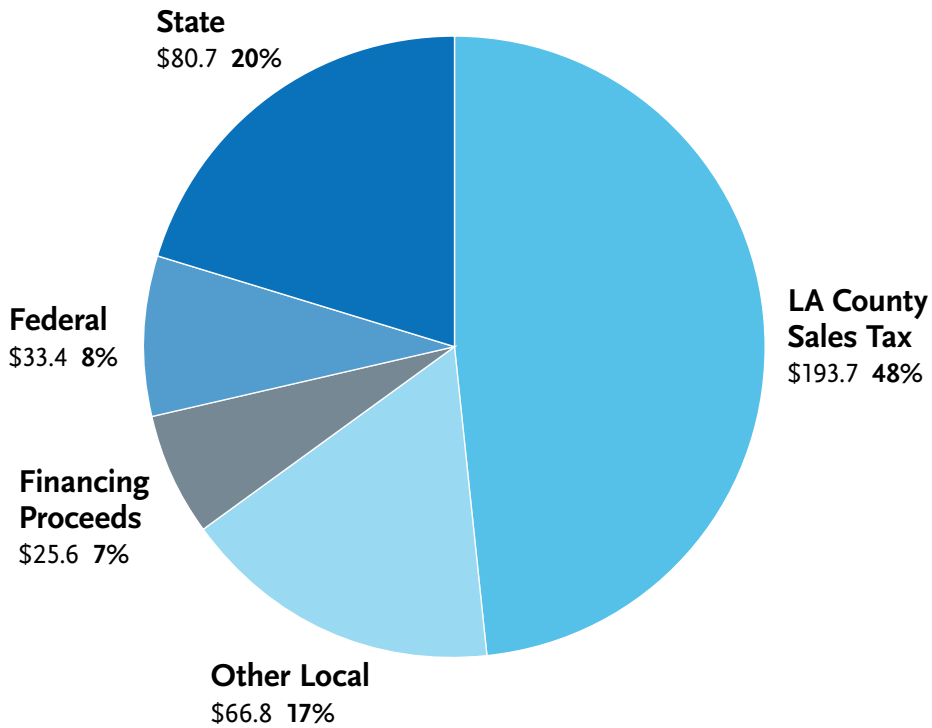
\$ in billions



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.

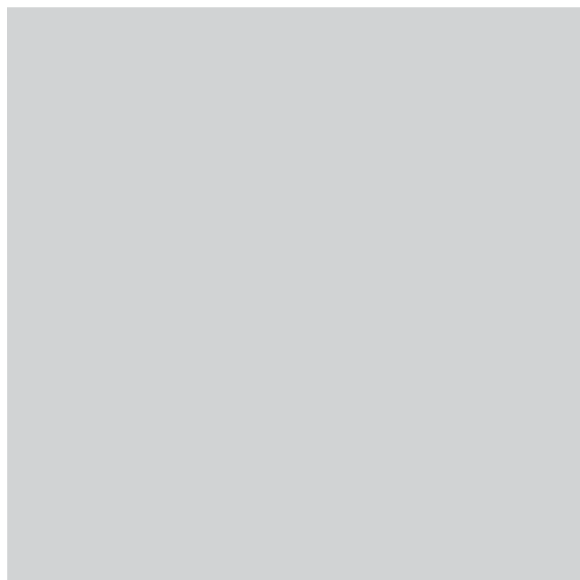


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Measure M Multi-year Subregional Programs

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

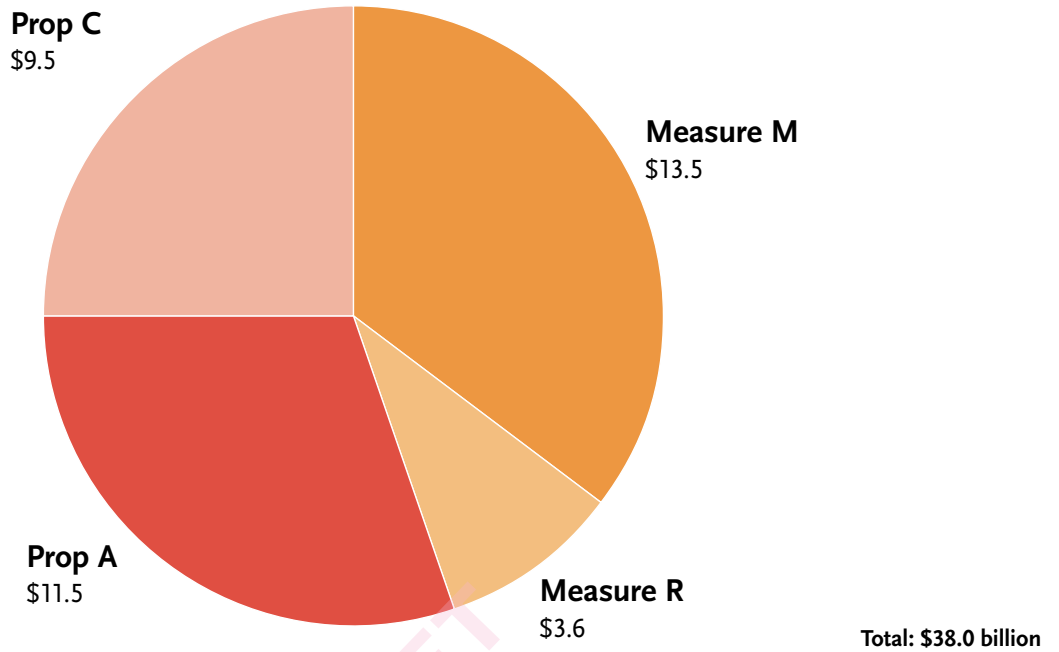
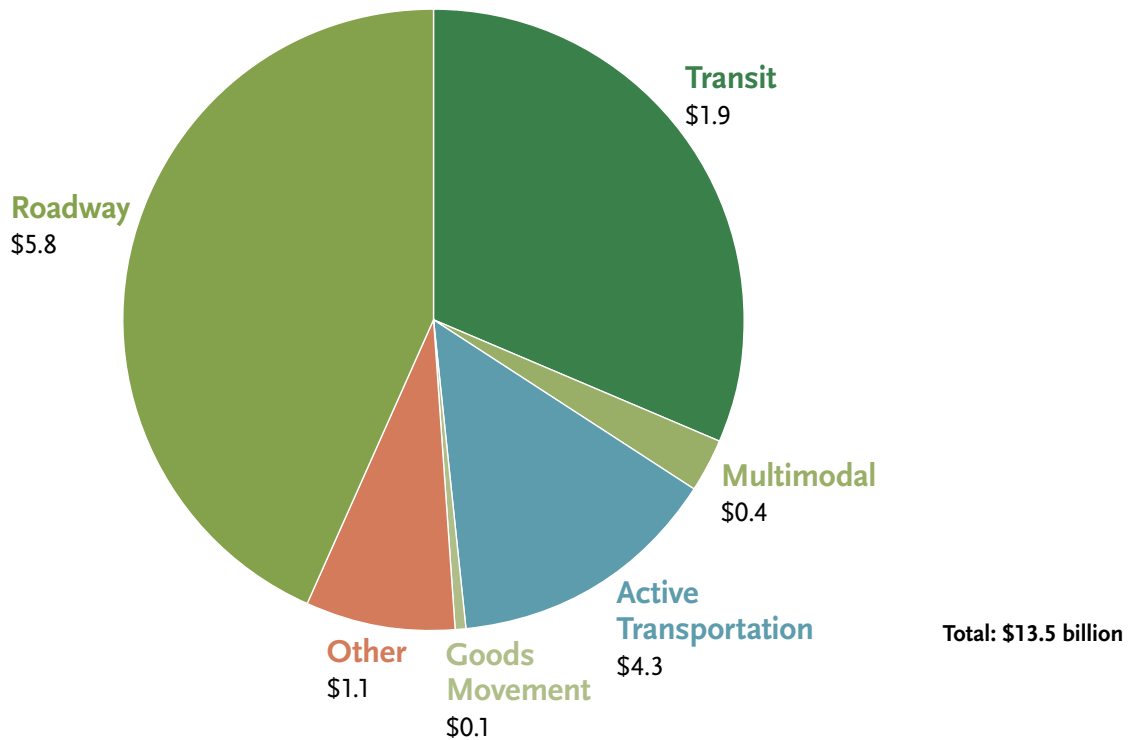


Figure 28

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

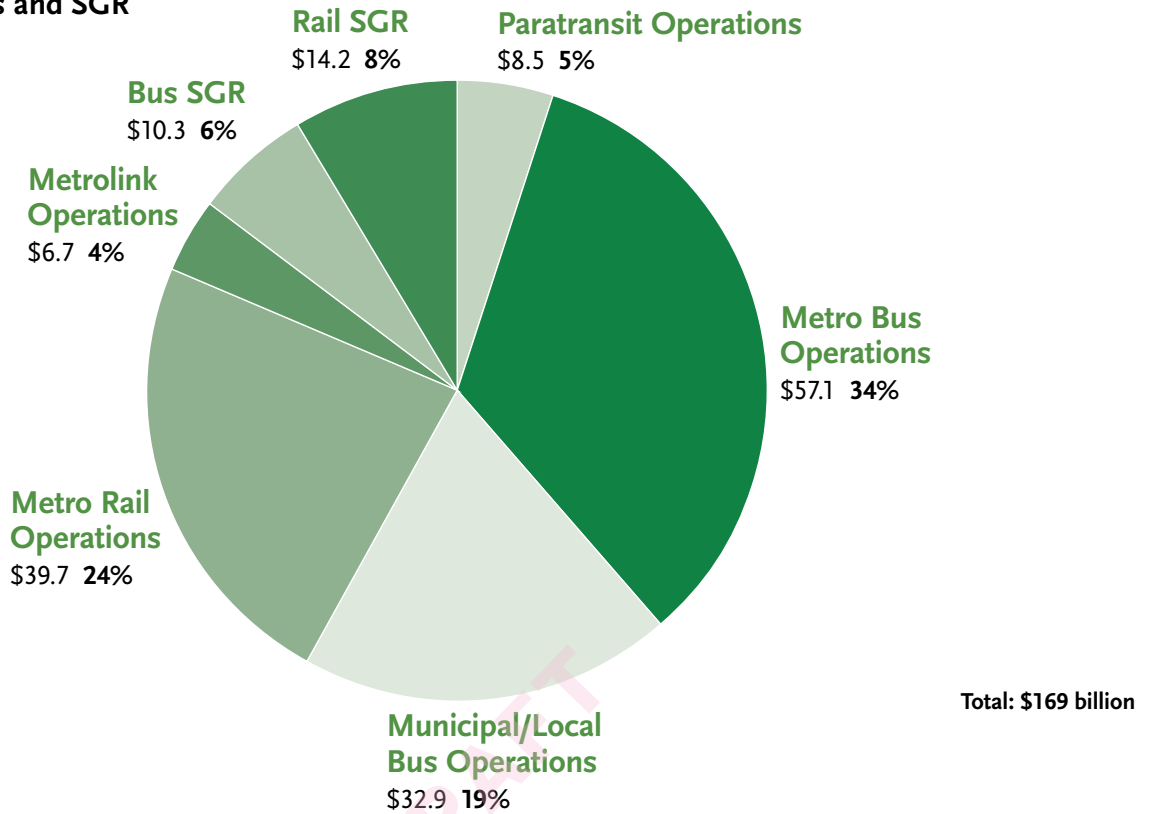
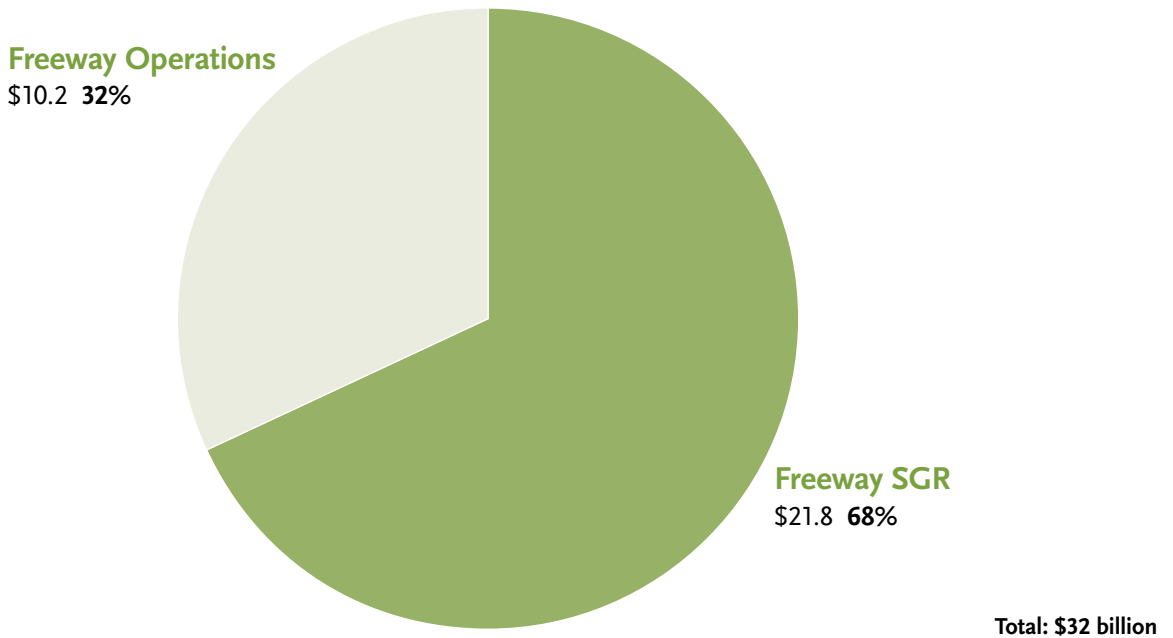


Figure 30

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.

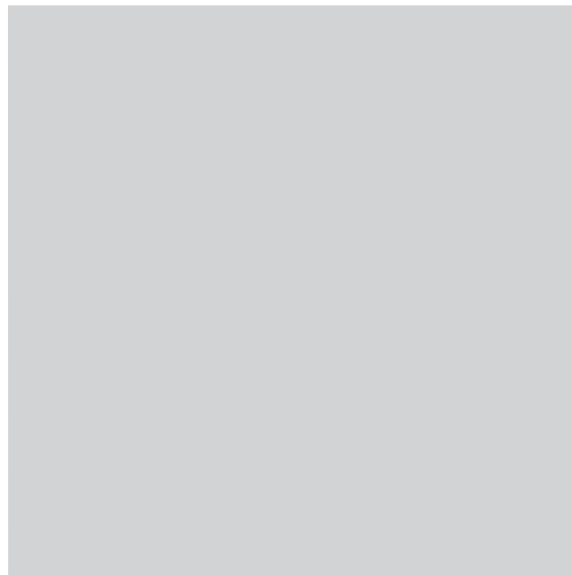


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Plans for today, and the decades to come.

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.

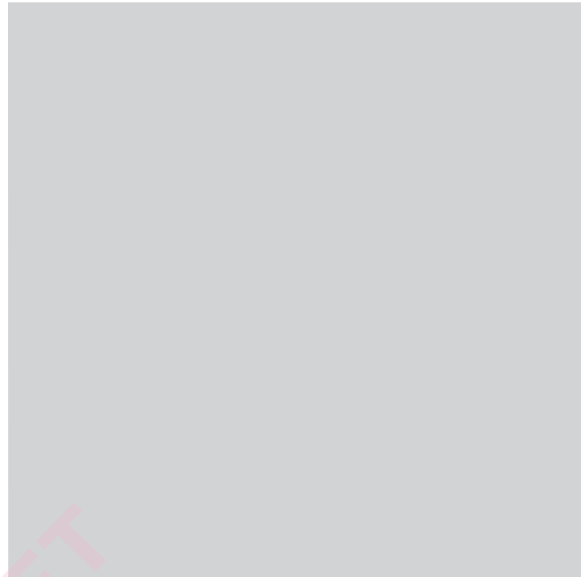




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 ournext.la

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

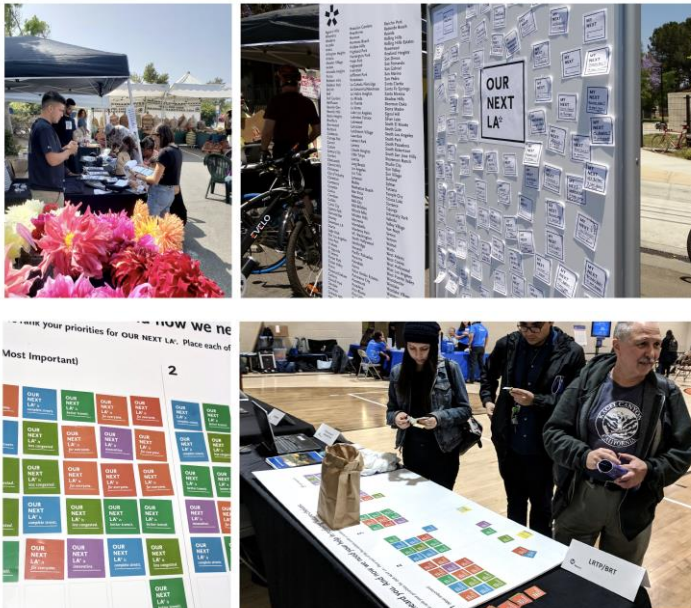
Making streets and sidewalks safe and convenient for all

Access to Opportunity

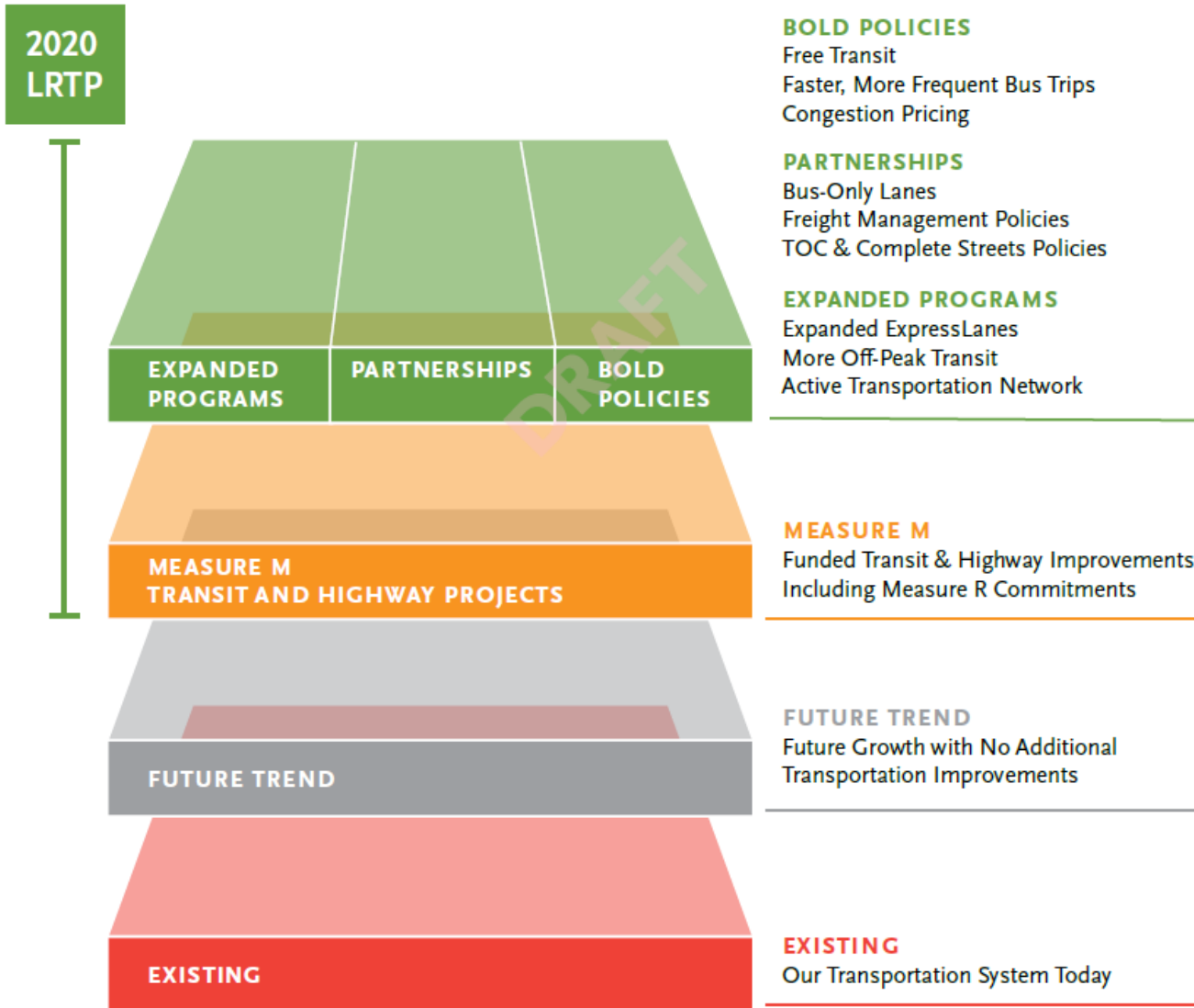
Investing in communities to create jobs and housing near transit

Public Engagement:

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



Elements of the 2020 LRTP

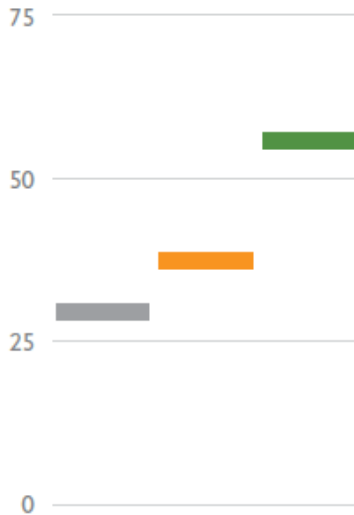


Benefits of the 2020 LRTP



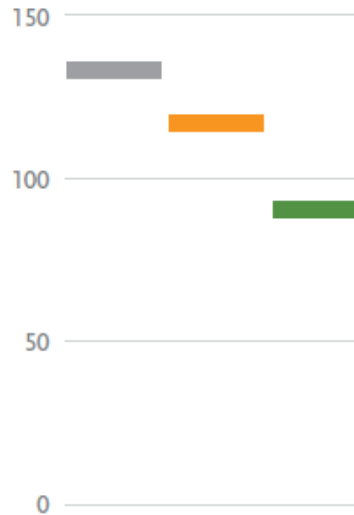
Transit Trips
annual trips per capita

↑
81%



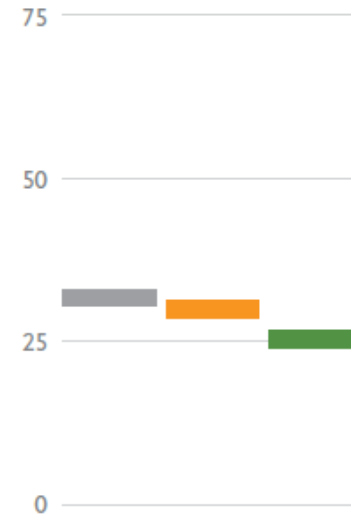
Vehicle Hours of Delay
annual hours per capita

↓
31%



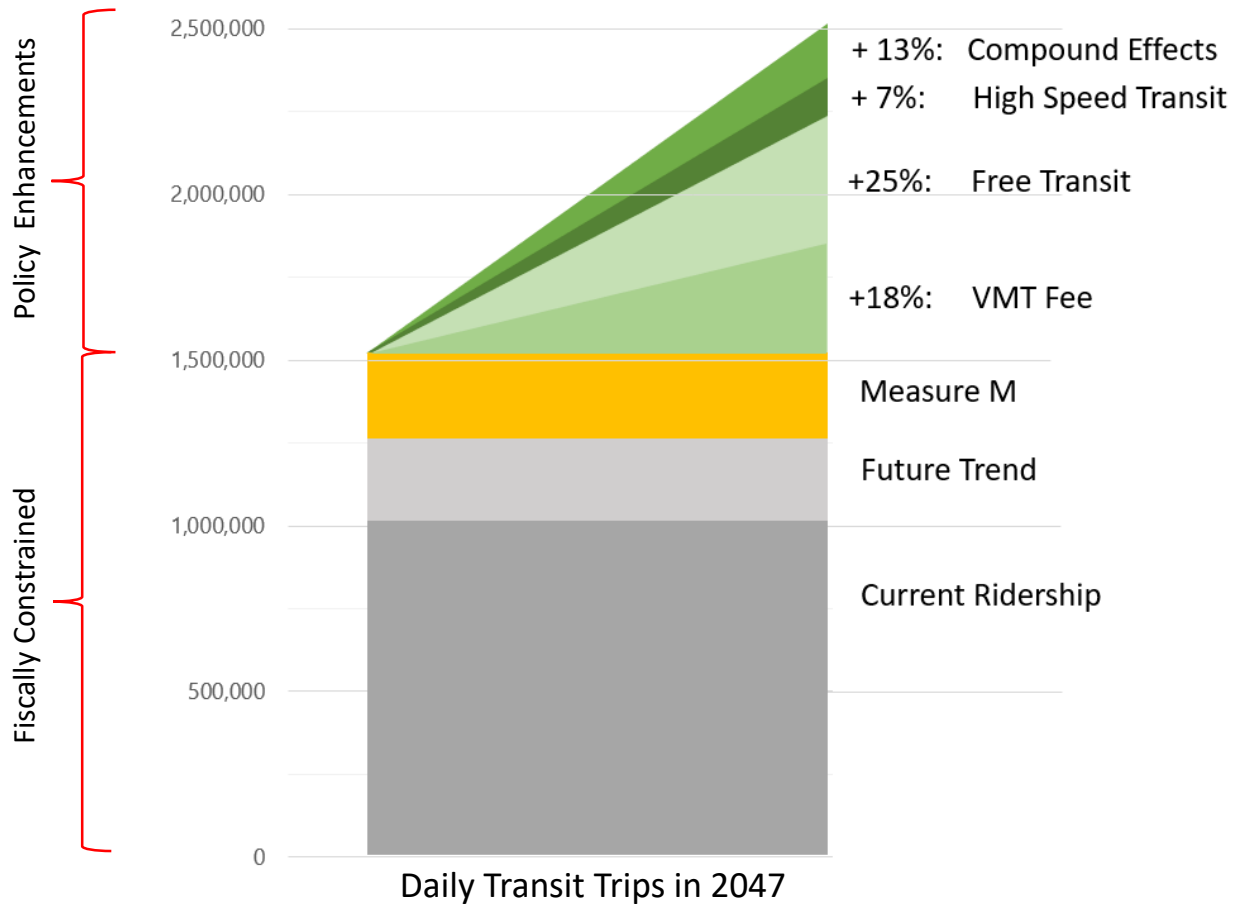
Greenhouse Gas Emissions
annual million metric tons

↓
19%



2020 LRTP: Expanding Beyond Measure M

Increasing Transit Ridership

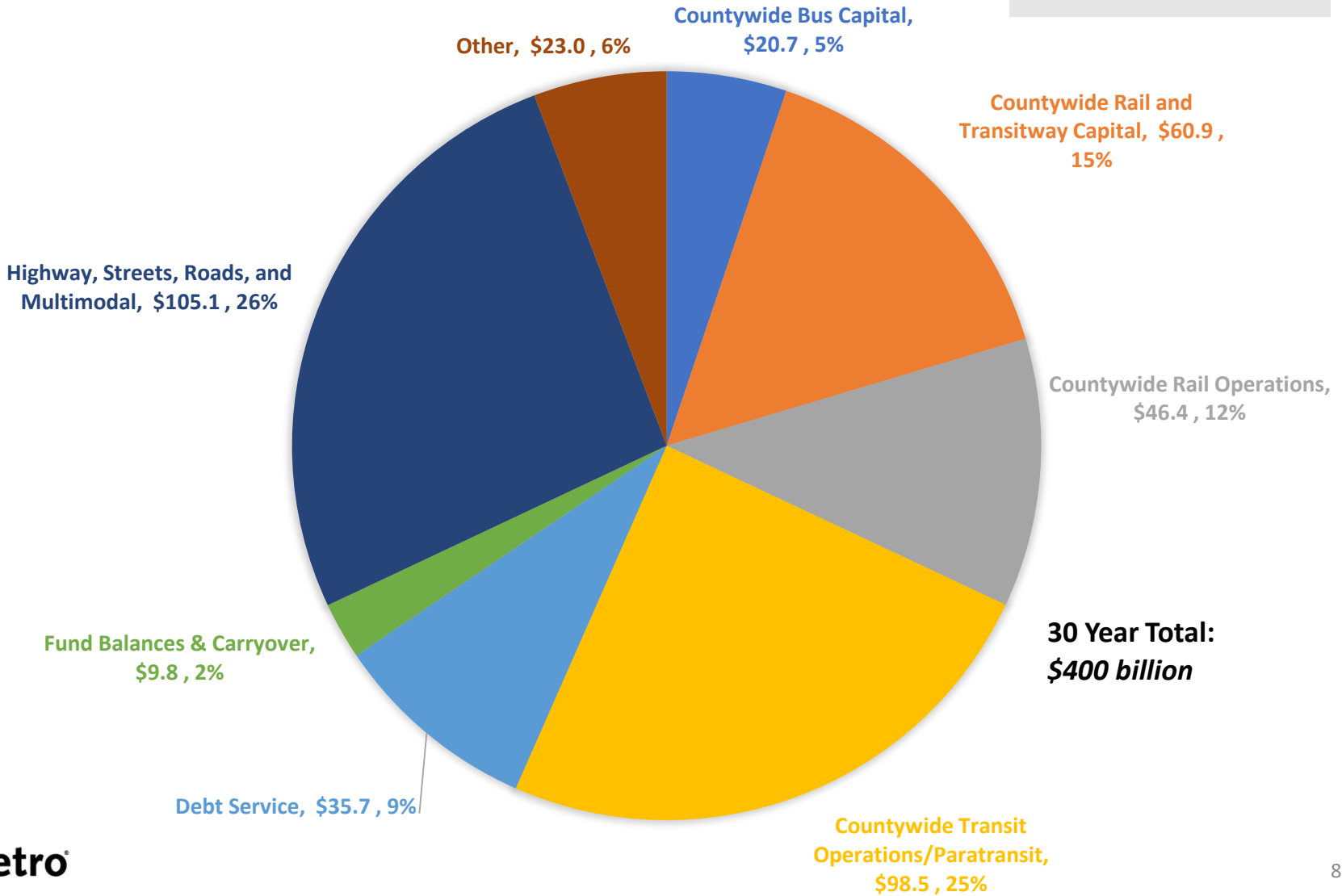


- Approximately 1% improvement in daily transit trips for every 1¢ charged per mile.
- A fully subsidized transit trip for all riders may increase ridership up to 25%.

LA County Investments

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

Metro controls almost ¾ 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)

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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*.

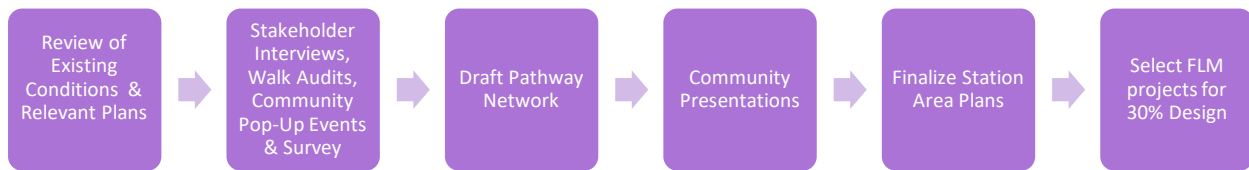


Figure 2: Summarized FLM methodology for PLE 2&3

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,

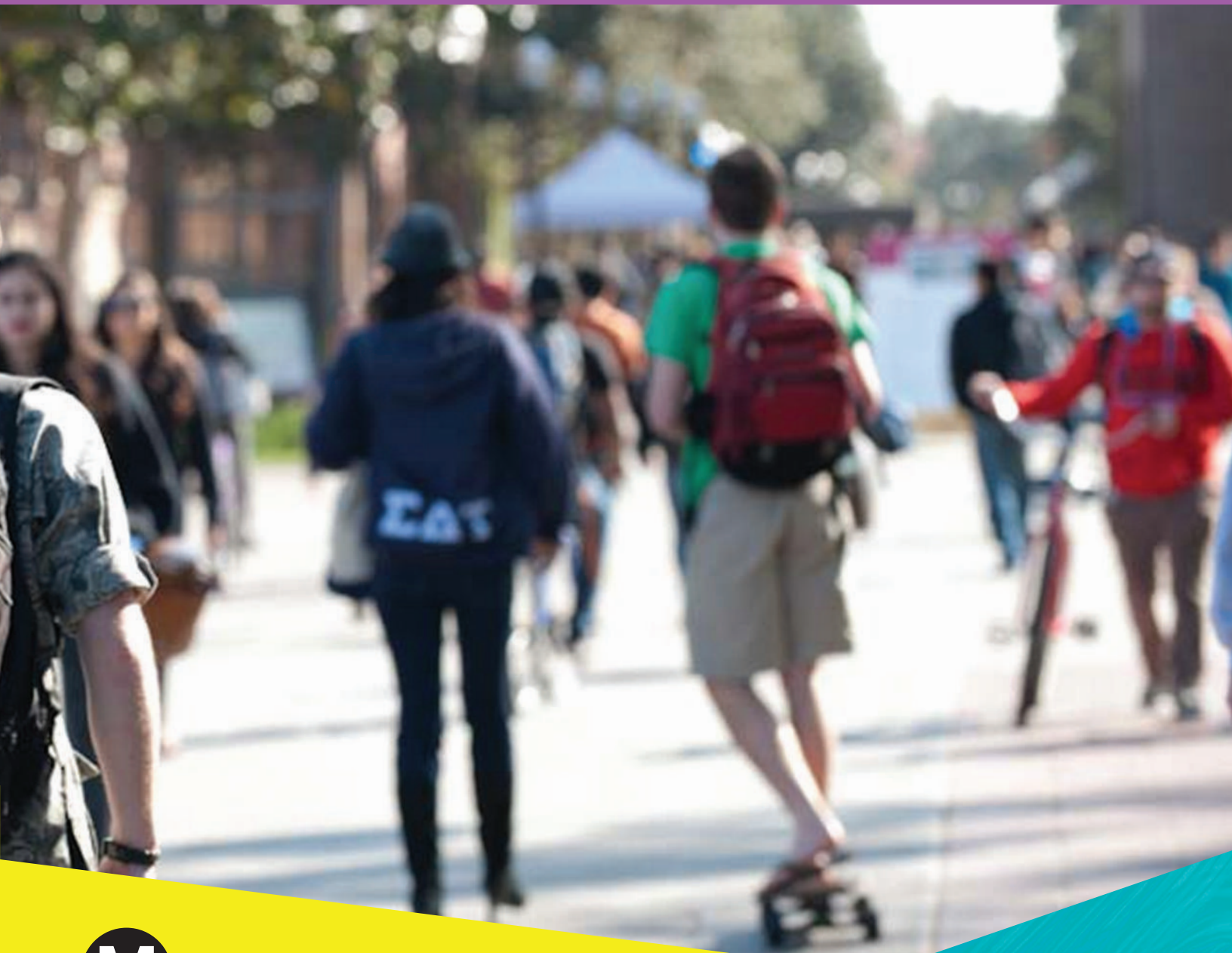
comfort, community input, and connectivity. Prioritization also includes cost information and indicates which projects are recommended to proceed to a preliminary engineering (PE) stage. A more detailed methodology is provided separately in supporting documents.

➤ 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

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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

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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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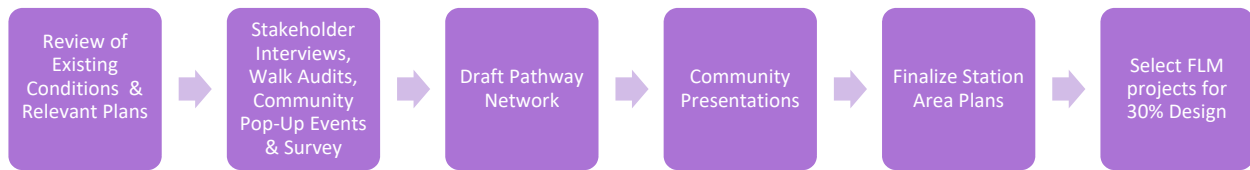


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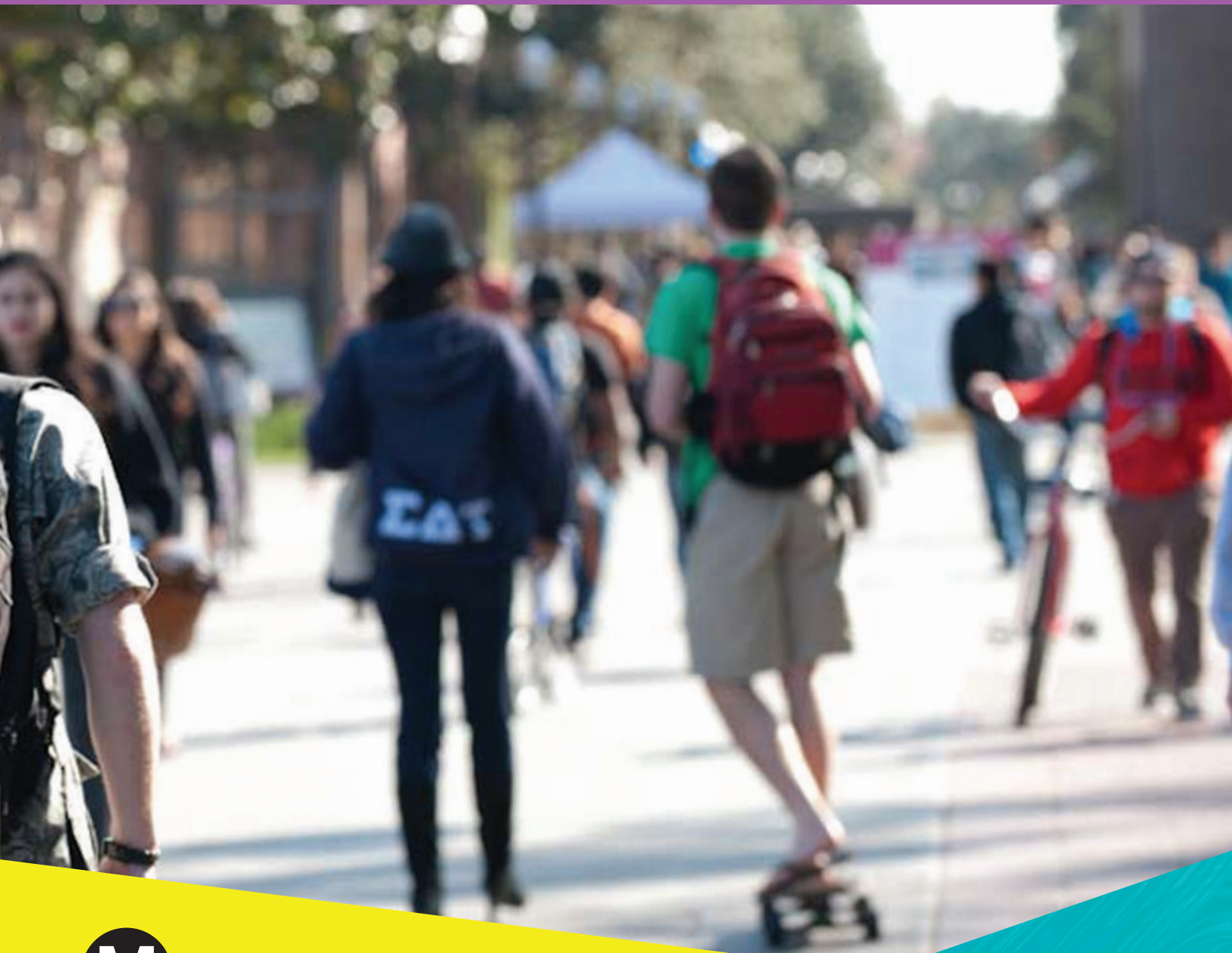
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Core Documents

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.

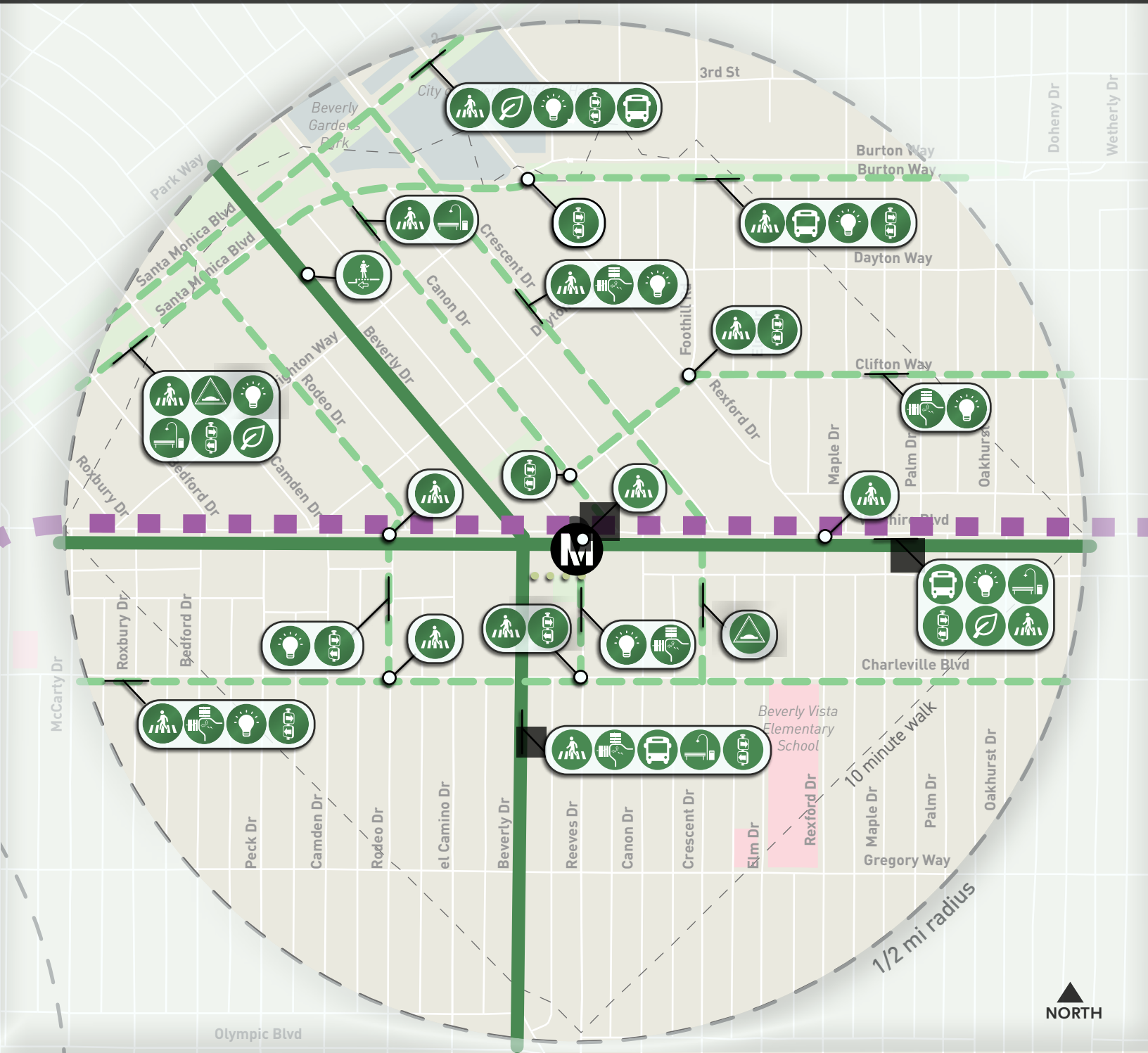
The Draft *Beverly Hills Complete Streets Plan* proposes a series of bike connections that will help facilitate station access. With multiple modes vying for busy streetspace, it will be important to ensure that these facilities provide optimal protection for bicyclists. The bike connections proposed 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 Improvements
- 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 Idea

Corridor Improvement

Street Type

FLM Pathway Arterial
Primary Routes

FLM Pathway Collector
Secondary Routes

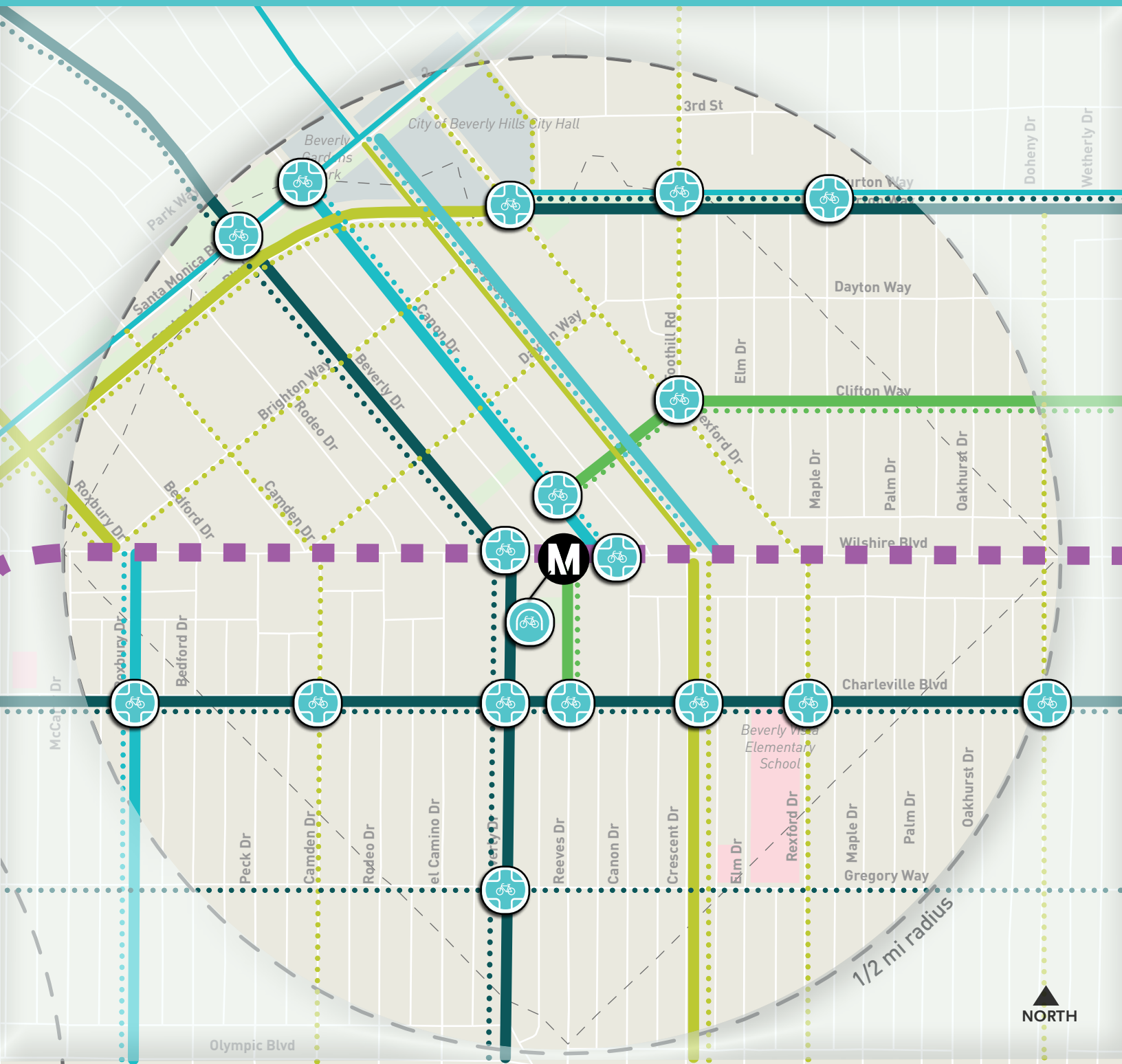
FLM Pathway Cut-Through
Shortcut

I-3

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.

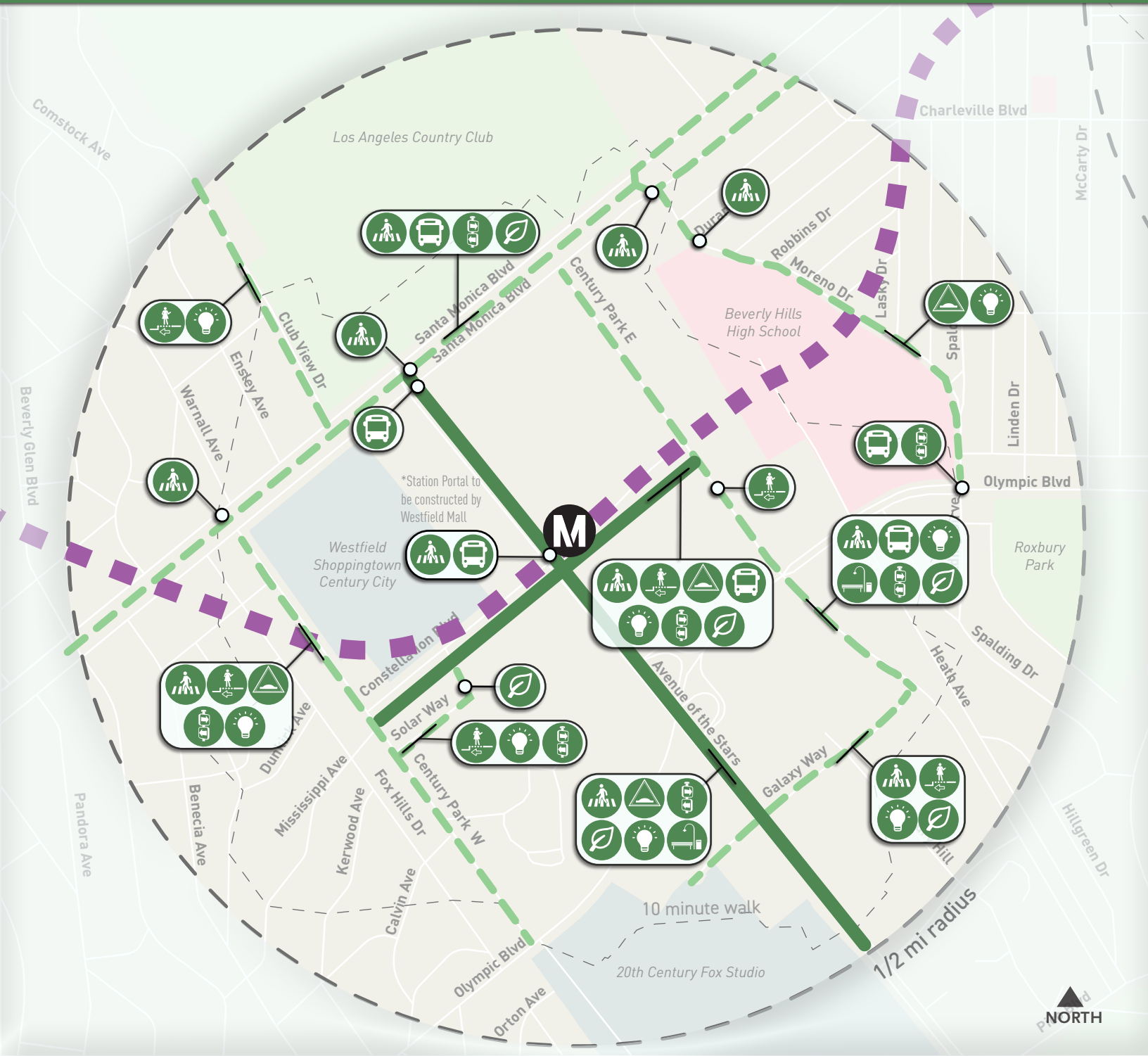
Residential communities surround Century City. Existing streets enhanced for first/last mile access would connect these neighborhoods to the station, allowing riders to access the Purple Line safely and swiftly.

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 Improvements
- 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 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
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- 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 Improvements
- Landscaping & Shade
- New or Improved Crosswalks
- New or Improved Sidewalks
- Pedestrian & Bicycle Lighting
- Street Furniture
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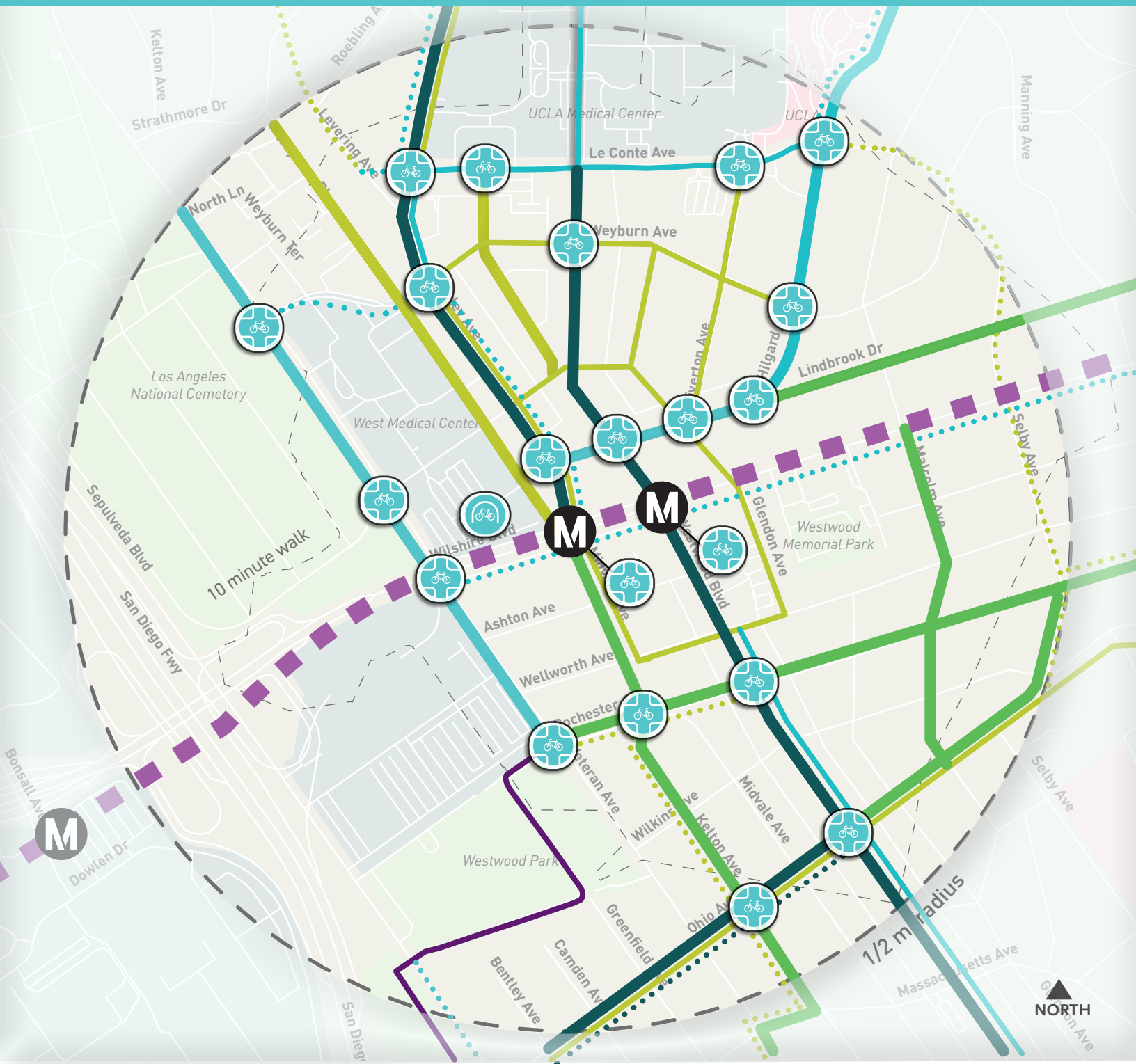
Improvement Type

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

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



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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

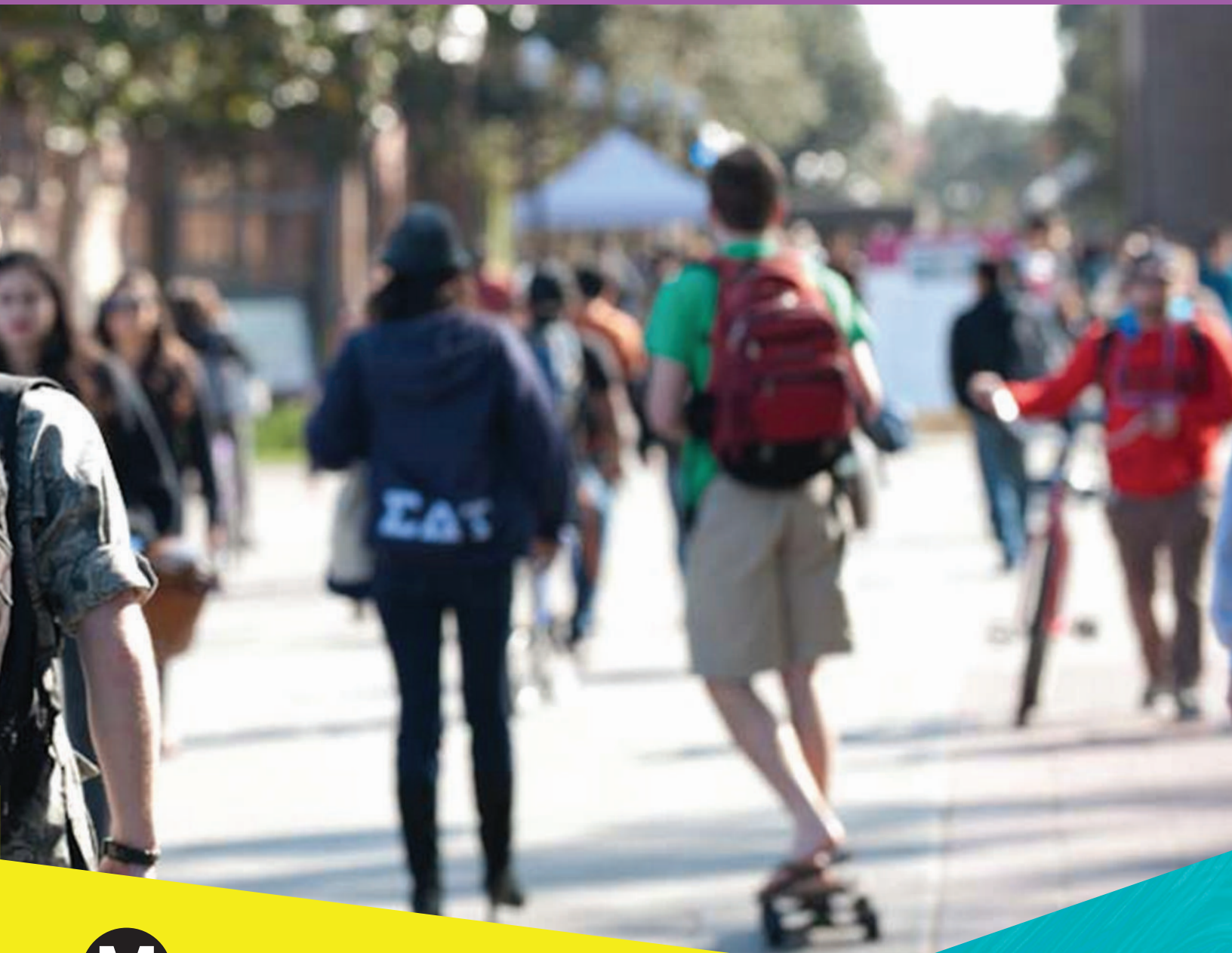
WESTWOOD/VA HOSPITAL STATION

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



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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	\$ 30,401,429.36
2021 Cost			\$	30,401,429.36	\$ 37,241.75
				Total	\$ 30,438,671.11

20-Mar-20

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
Project Cost					\$ 25,218,116.03
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/ 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
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

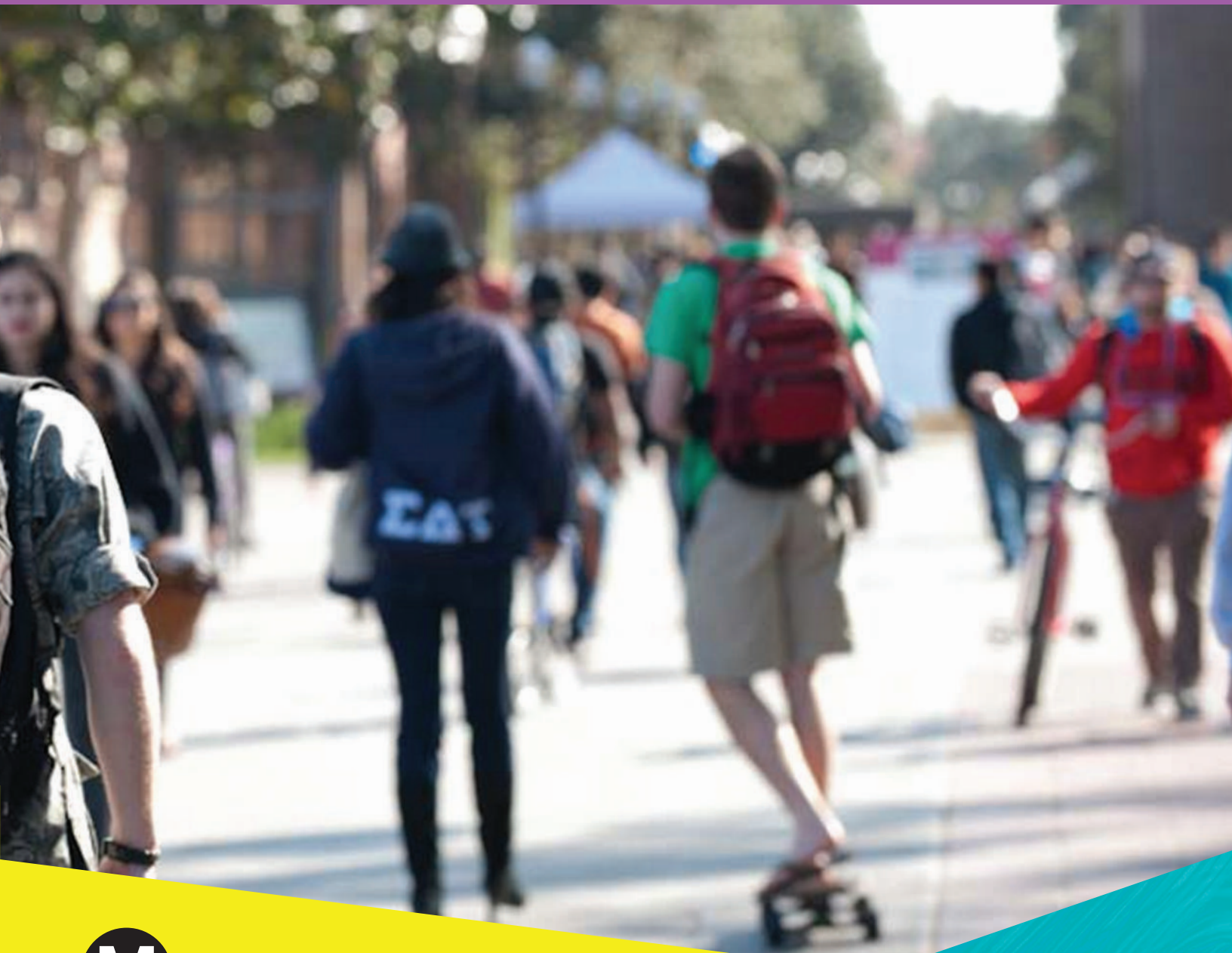
FTA SCC-50 CONSTRUCTION COSTS

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	24	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	3	18	22	14	29	8.5	2.5	2.5	51.0	\$ 36,000										
19		Traffic Calming	Roxbury Dr to Crescent Dr	5																			\$ 960,000	
20		Ped/bike lighting	Roxbury Dr to Crescent Dr	5																			\$ 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	\$ 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		16		6		10		15	4.4		2.5	2.5	28.9	\$ 120,000								
40		New or improved Crosswalks	Rexford Dr	5	1				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		23		0		10		10	2.9		2.5	2.5	28.4	\$ 40,500								
44		Traffic calming	Wilshire Blvd to Clifton Way	5	3																				\$ 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		6		12		12		17	5.0		2.5	2.5	25.5	\$ 31,500								
48		Street furniture	Wilshire Blvd to Clifton Way		1				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
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)				
Projects on Moreno Dr (Secondary Collector)																	\$	611,250		
43		Ped/bike lighting	Lasky Dr to Young Dr	5	1	16		6		10	5	15	4.4		2.5		2.5	28.9	\$	360,000
44		Wayfinding	Olympic Blvd				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																
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	64.9	\$ 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	41.8	\$ 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	38.3	\$ 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	32.3	\$ 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				Score
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, Liverton 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:

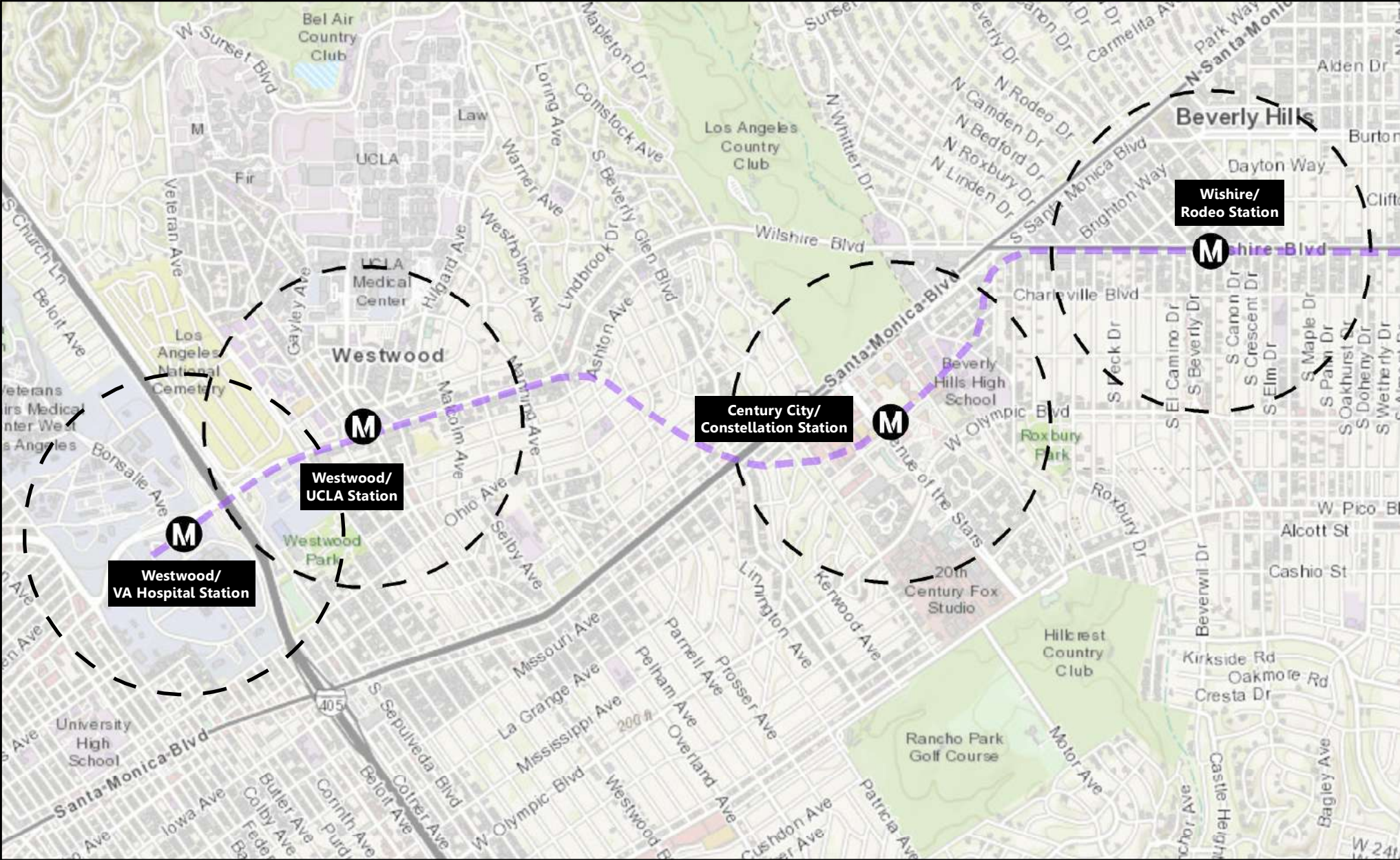
- The street grid network around each station
- Each station's pedestrian shed, or the area within which a pedestrian would comfortably walk to access the station
- Streets with high vehicular speeds around each station
- Bicycle and pedestrian collision locations within a half-mile of each station
- 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

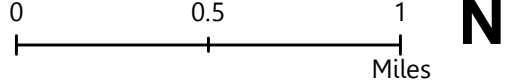
Figure 1.1



— Purple Line Extension

Ⓜ Station Entrance Locations

⌋ Half Mile Radii around Station Locations



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.

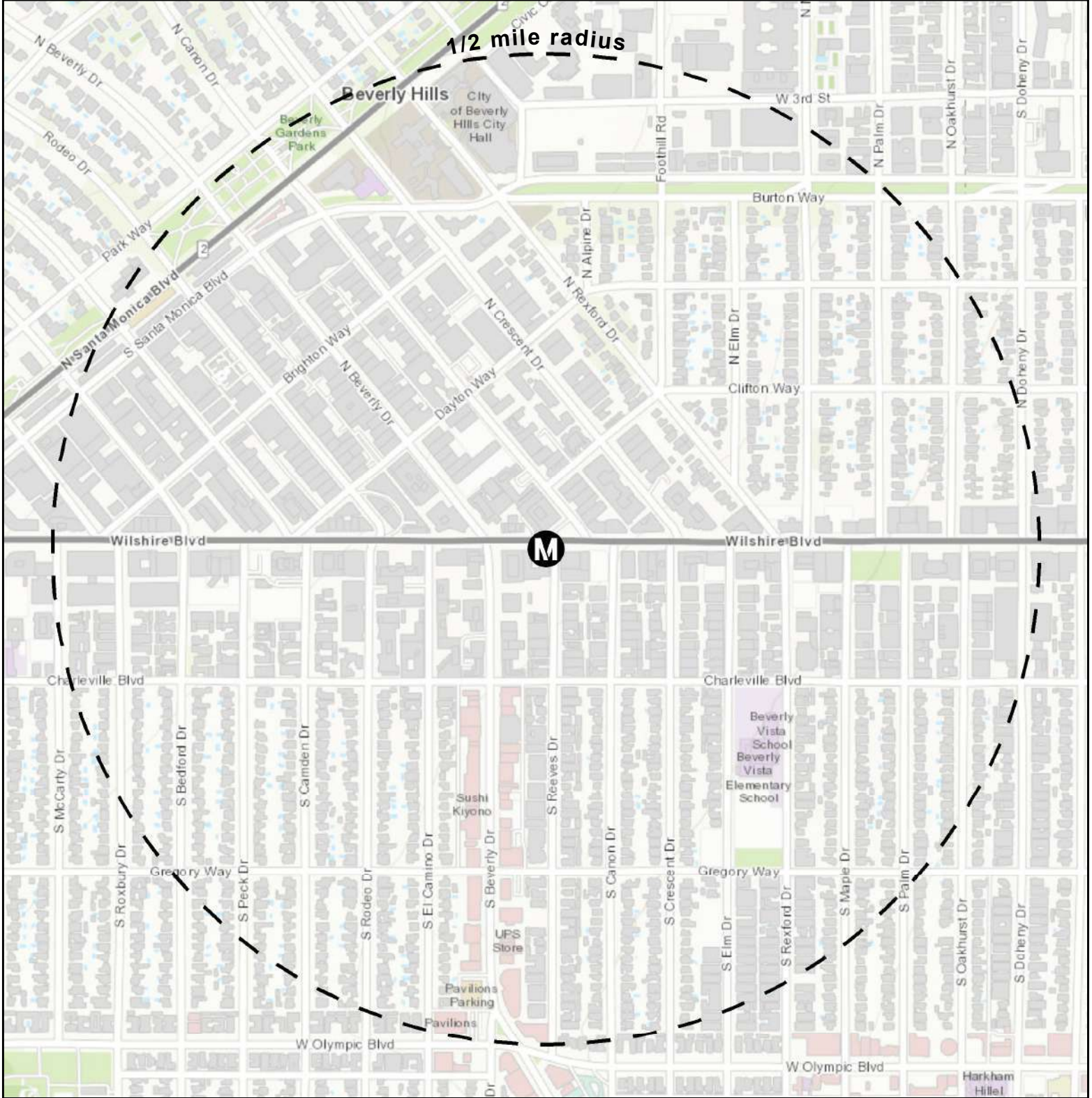
Three existing bus transit lines intersect the Wilshire/ Rodeo Station. Six bus transit lines currently operate within the half-mile radius.

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

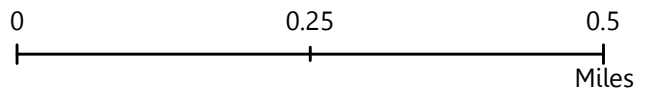
Figure 2.1



Wilshire / Rodeo Station Half-Mile Radius

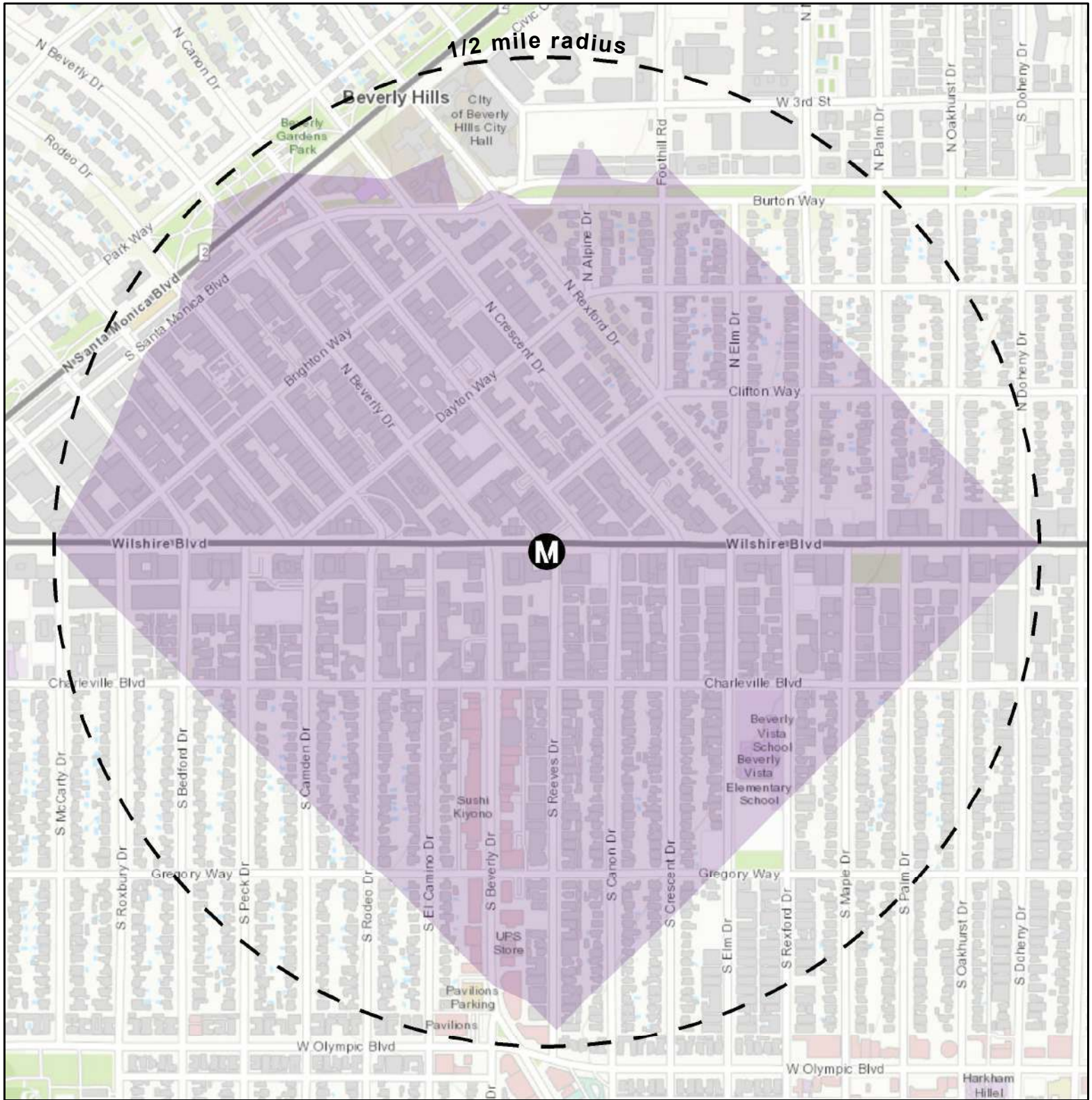


V-8



Wilshire / Rodeo Station Half-Mile Pedestrian Walk Shed

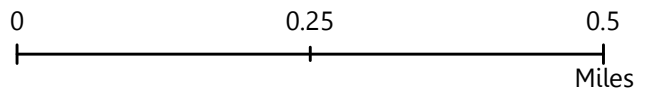
Figure 2.2



Half-Mile Pedestrian Walk Shed
 Wilshire / Rodeo Station Half-Mile Radius

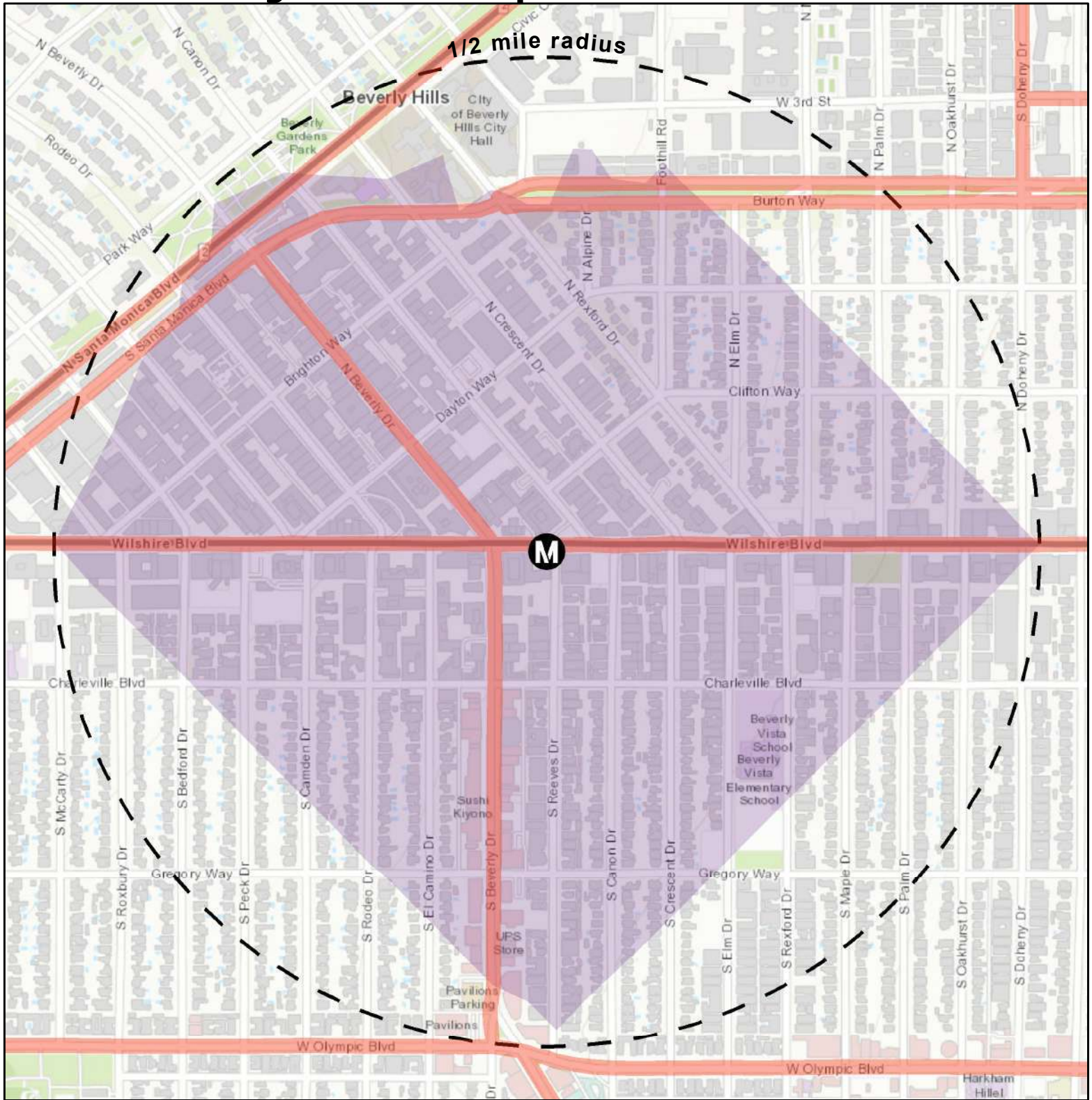


V-9



Wilshire / Rodeo Station Streets with High Vehicular Speeds

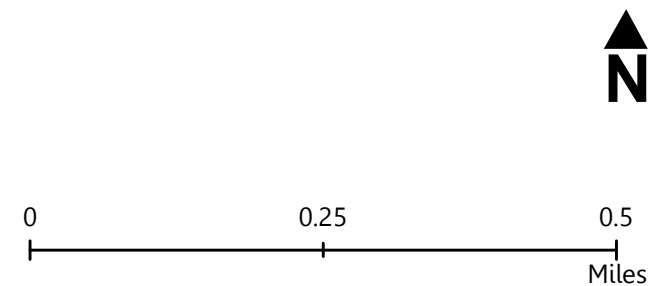
Figure 2.3



- Streets with High Vehicular Speeds
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius

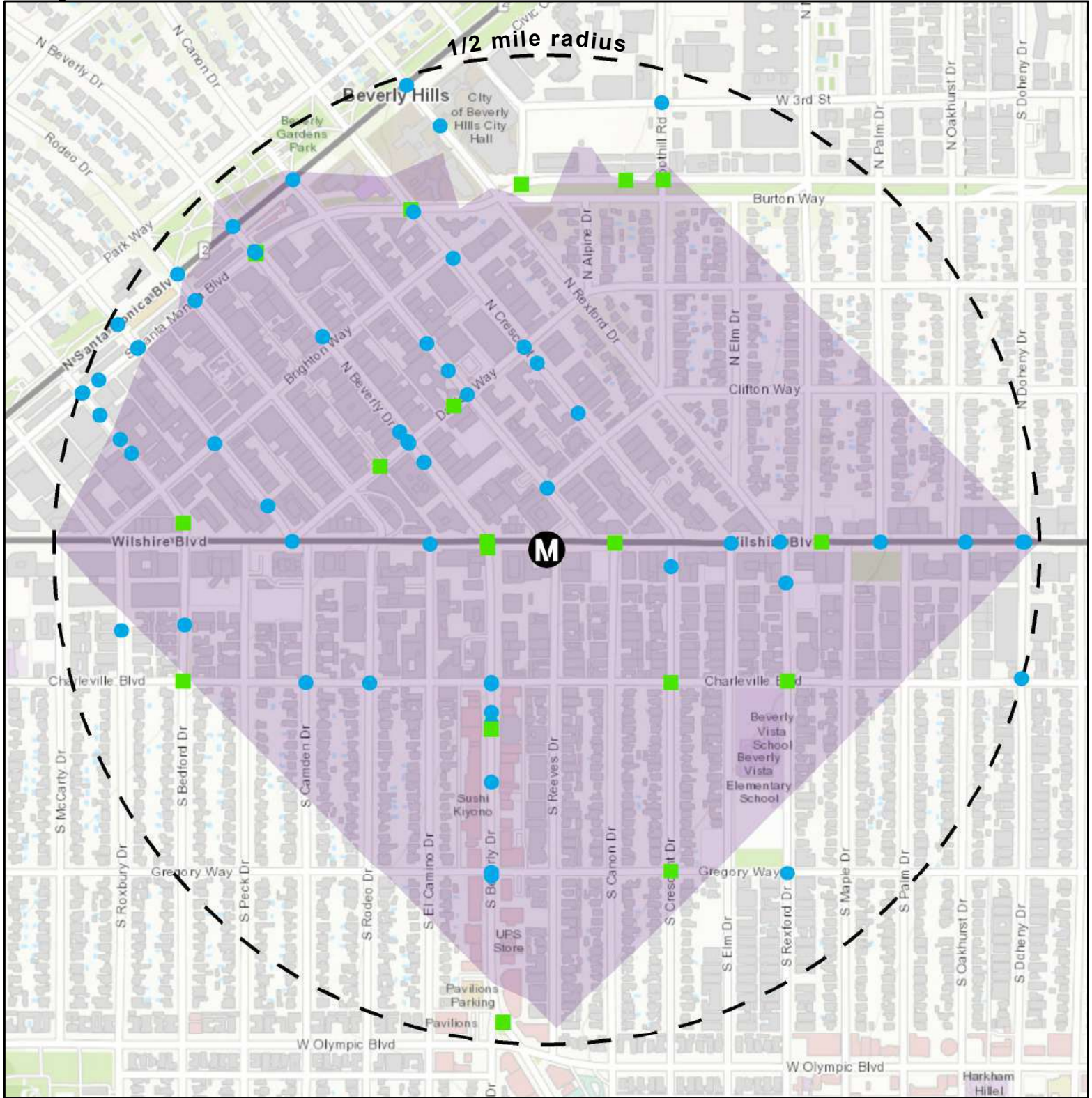


V-10



Wilshire / Rodeo Station Bicycle and Pedestrian Collisions (2013 - 2017)

Figure 2.4



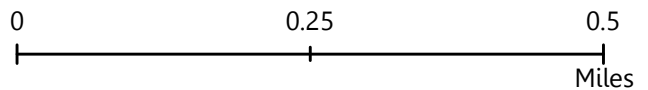
- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius



* A pedestrian fatality occurred at the intersection of 3rd St and Foothill Rd (2017)

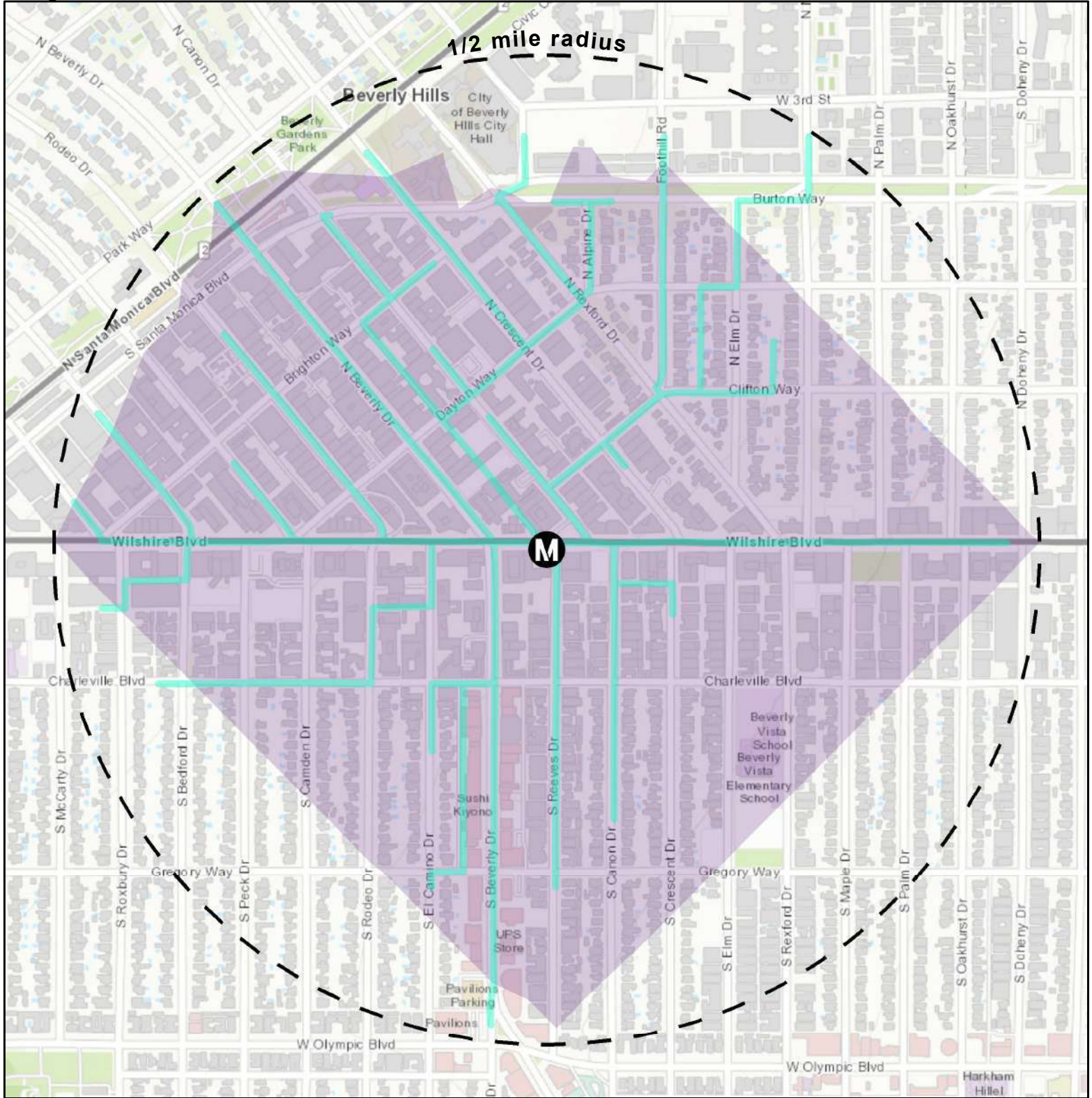


V-11



Wilshire / Rodeo Station Key Access Corridors

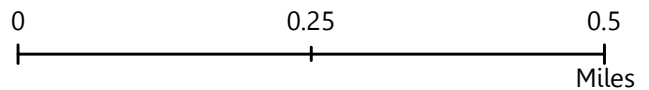
Figure 2.5



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Wilshire / Rodeo Station Half-Mile Radius

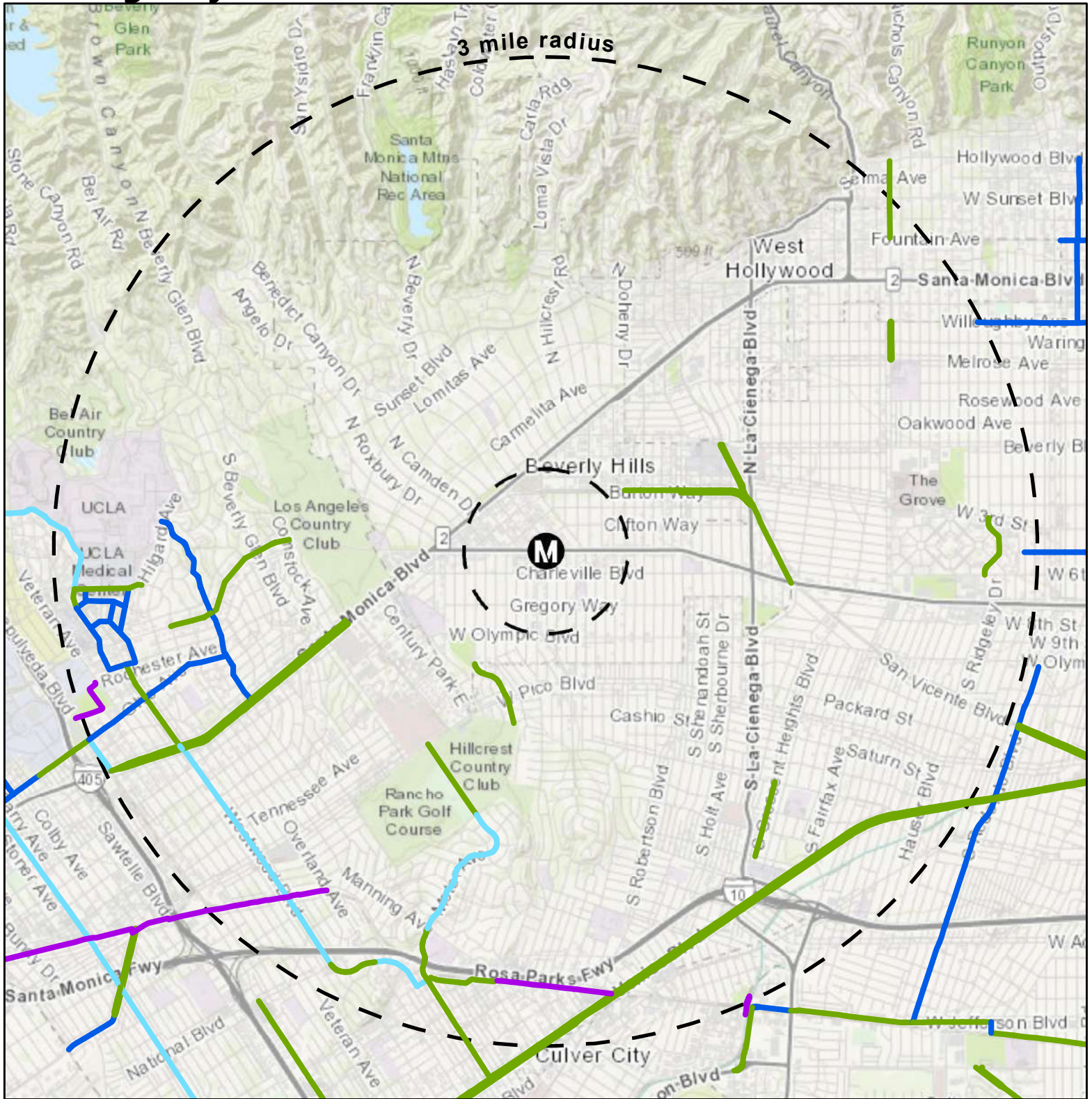


V-12



Wilshire / Rodeo Station Existing Bicycle Facilities

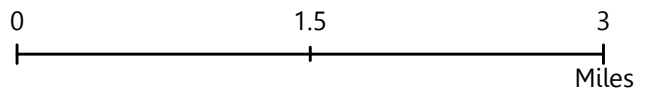
Figure 2.6



- 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

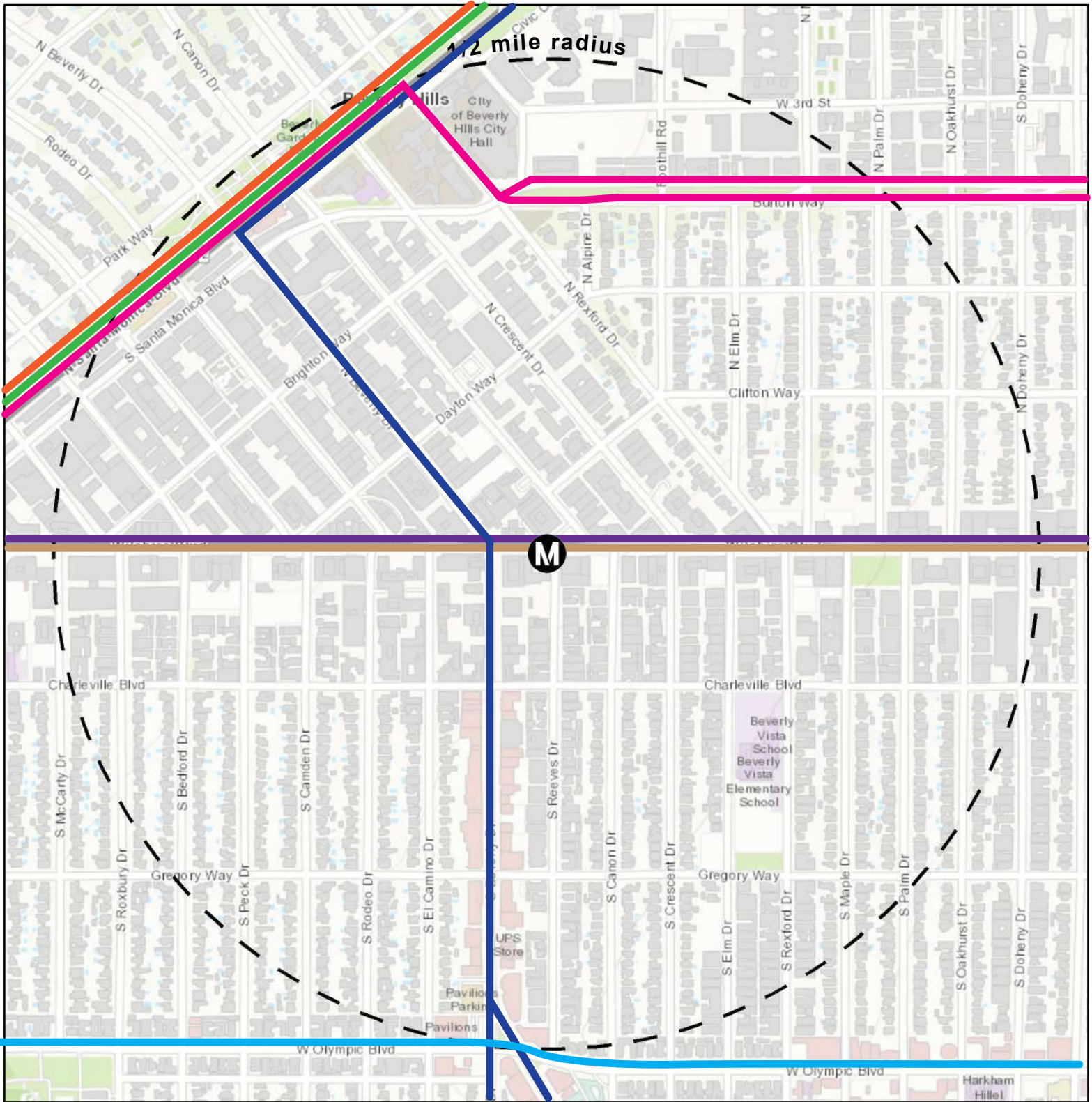


V-13



Wilshire / Rodeo Station Bus Transit Routes

Figure 2.7

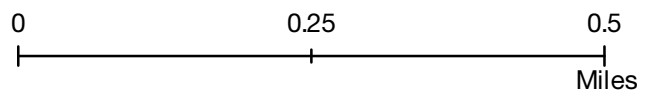


Metro

- Route 704 Route 720 Route 16 Route 14
- Route 4 Route 20 Route 28, 728

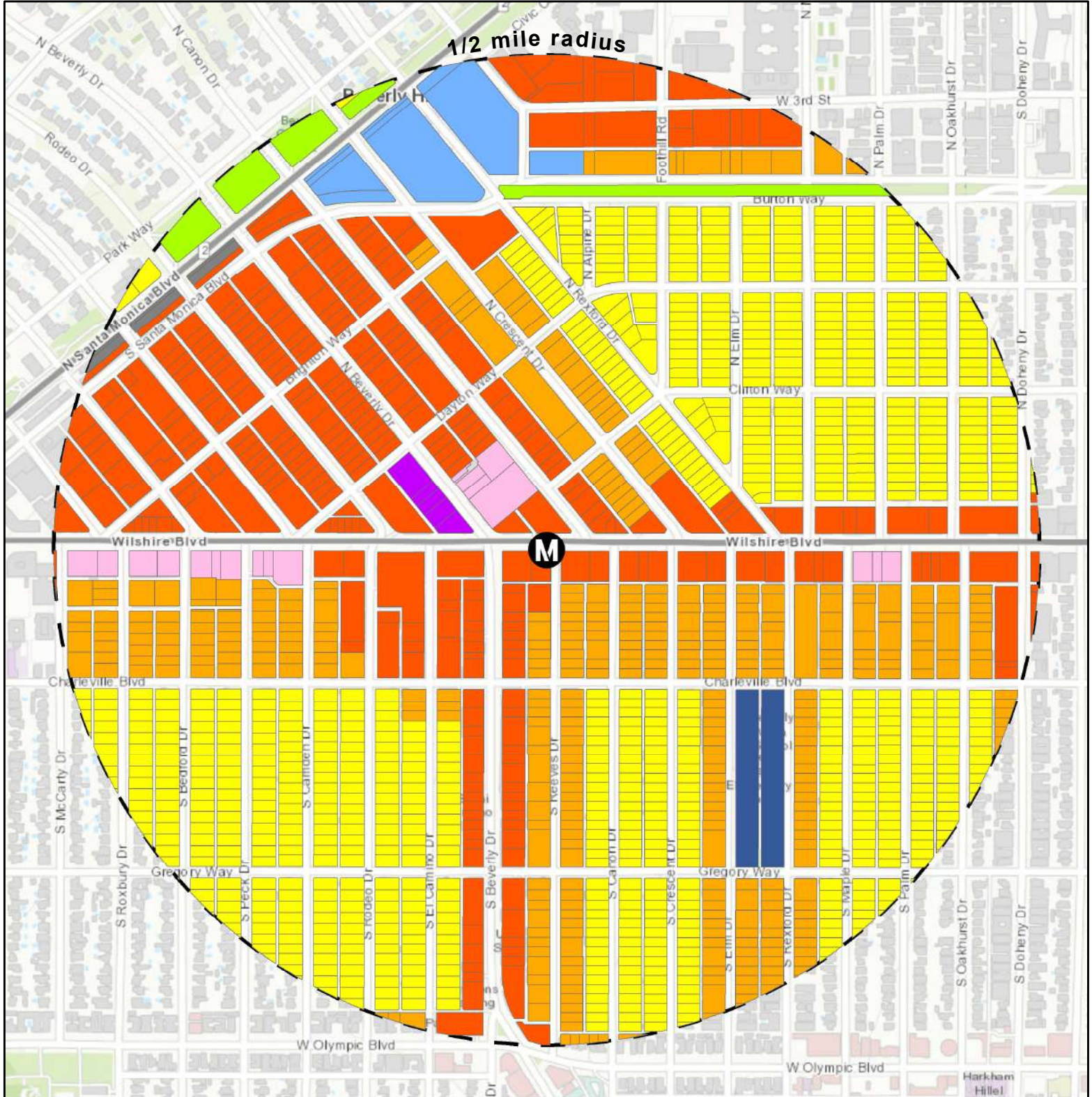


V-14



Wilshire / Rodeo Station Land Use

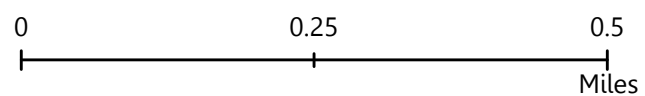
Figure 2.8



- | | | |
|----------------------------|---------------------|-------------------|
| Low-Density Residential | Commercial | Public Facilities |
| Medium-Density Residential | Regional Commercial | Open Space |
| Mixed Use | Public School | Parking |

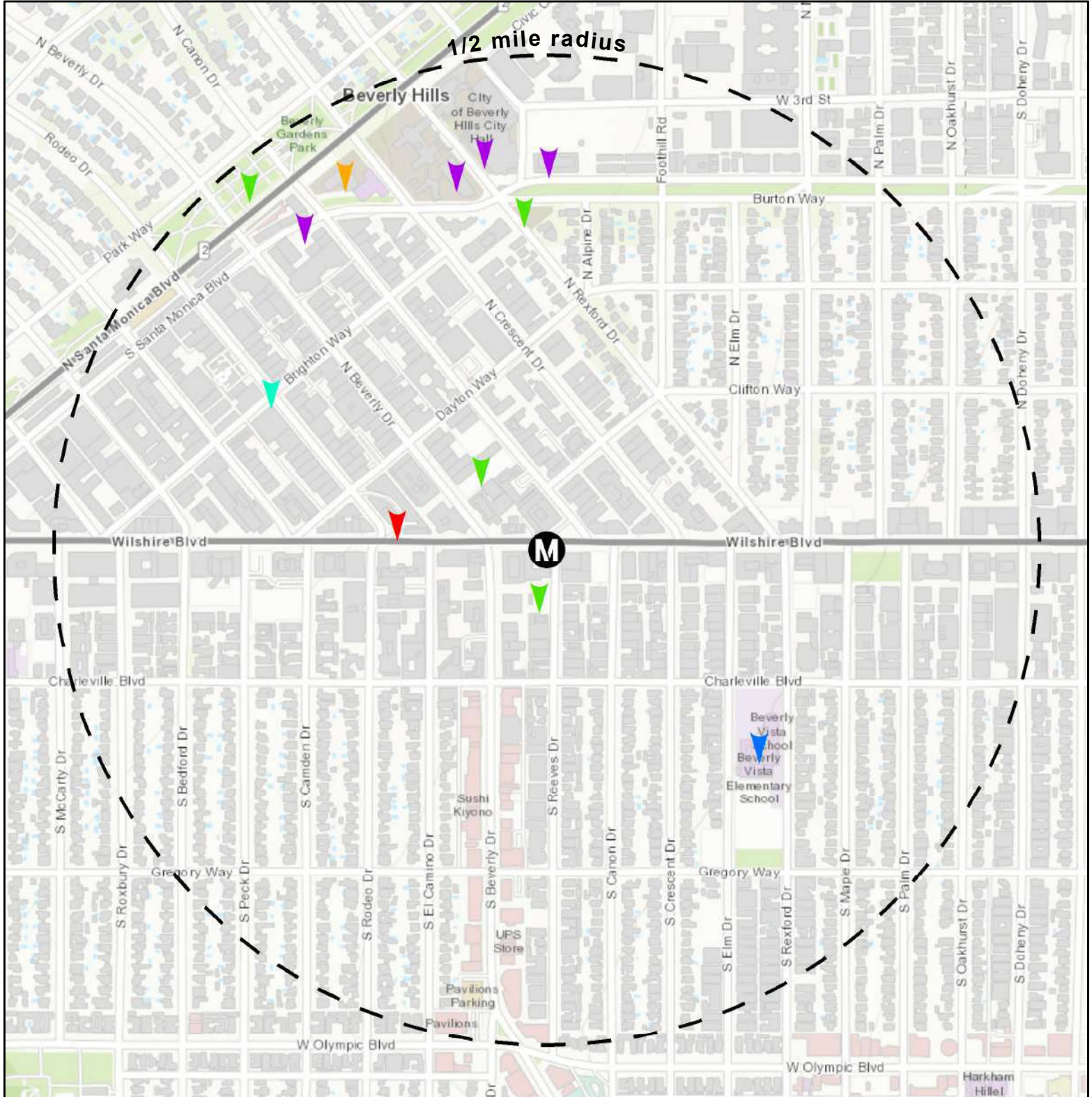










V-15



Wilshire / Rodeo Station Points of Interest

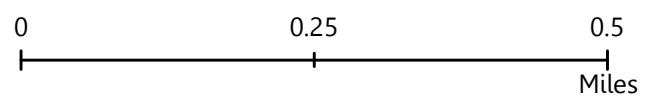
Figure 2.9



-  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.

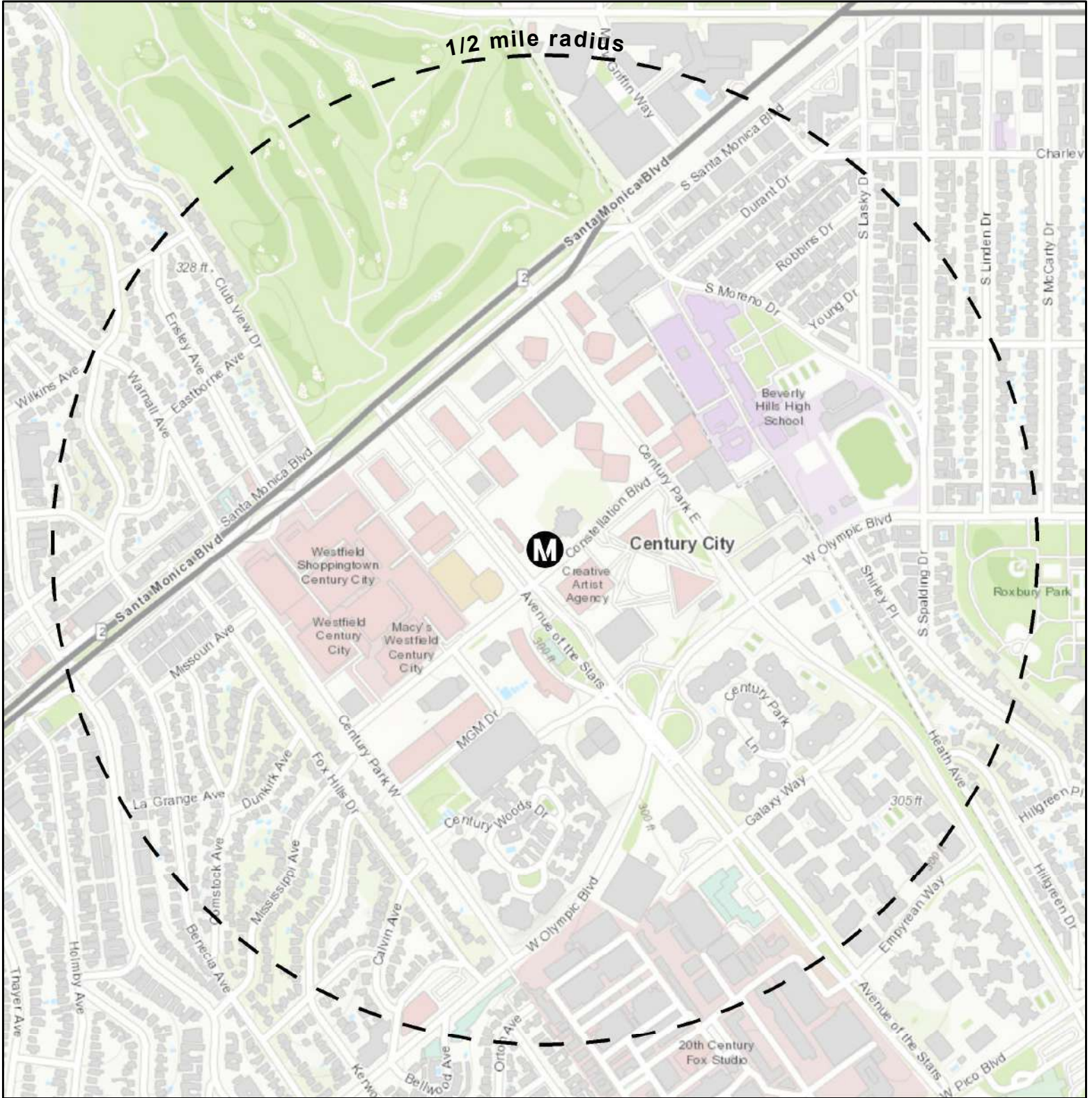
Identifying land use in the half-mile radius study area is crucial in identifying the type of users of the Purple Line will service. Major land uses around the station include Westfield Century City Mall, numerous office buildings, Fox Studios, as well as multi-family and single-family residential uses.

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

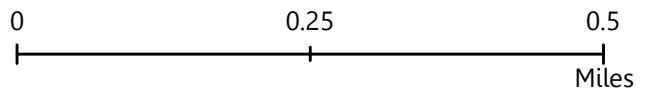
Figure 2.10



Century City / Constellation Station Half-Mile Radius

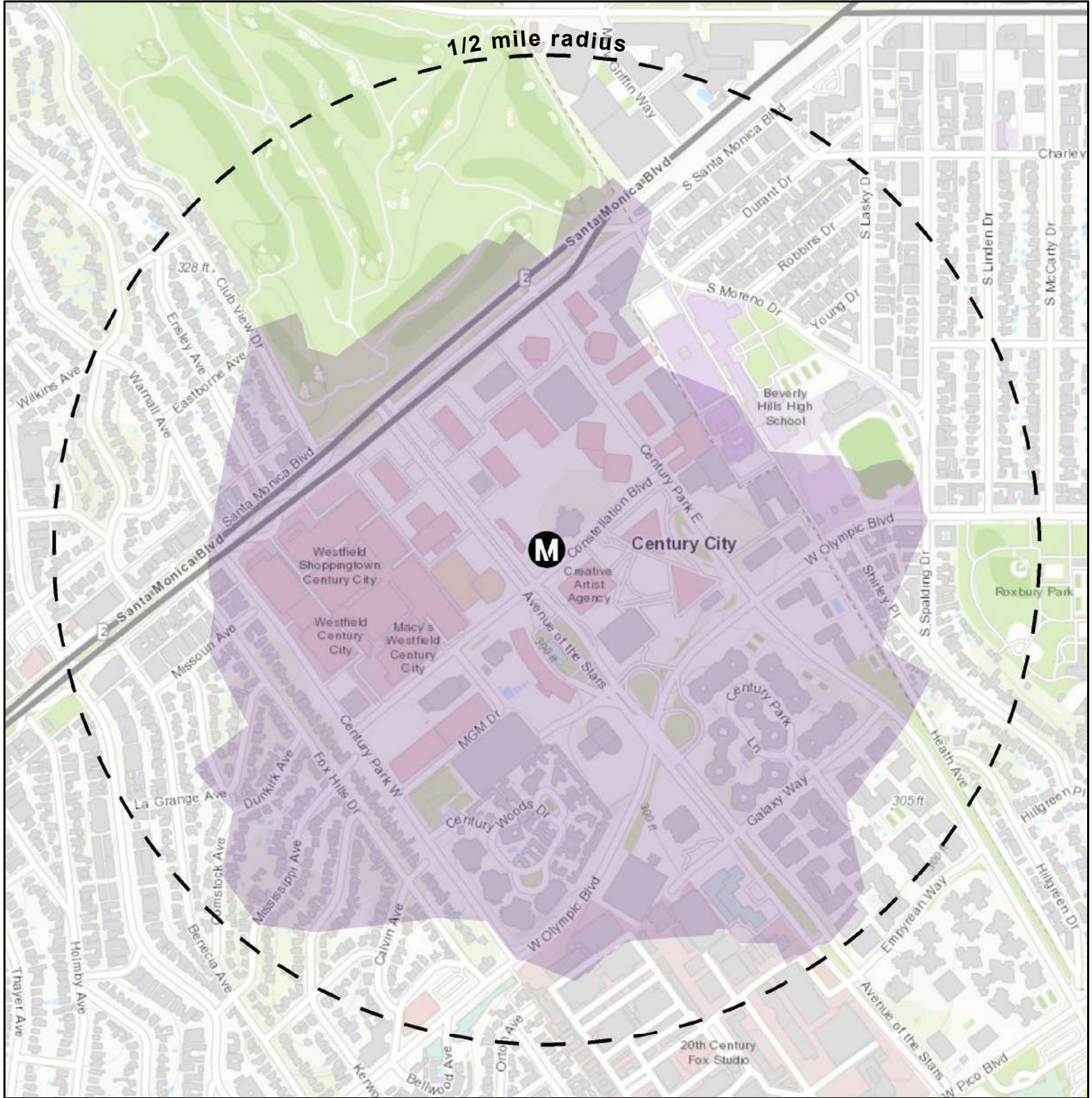


V-19



Century City / Constellation Station Half-Mile Pedestrian Walk Shed

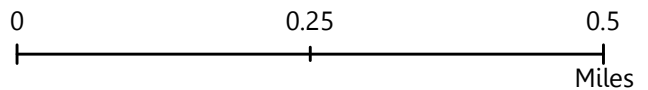
Figure 2.11



- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

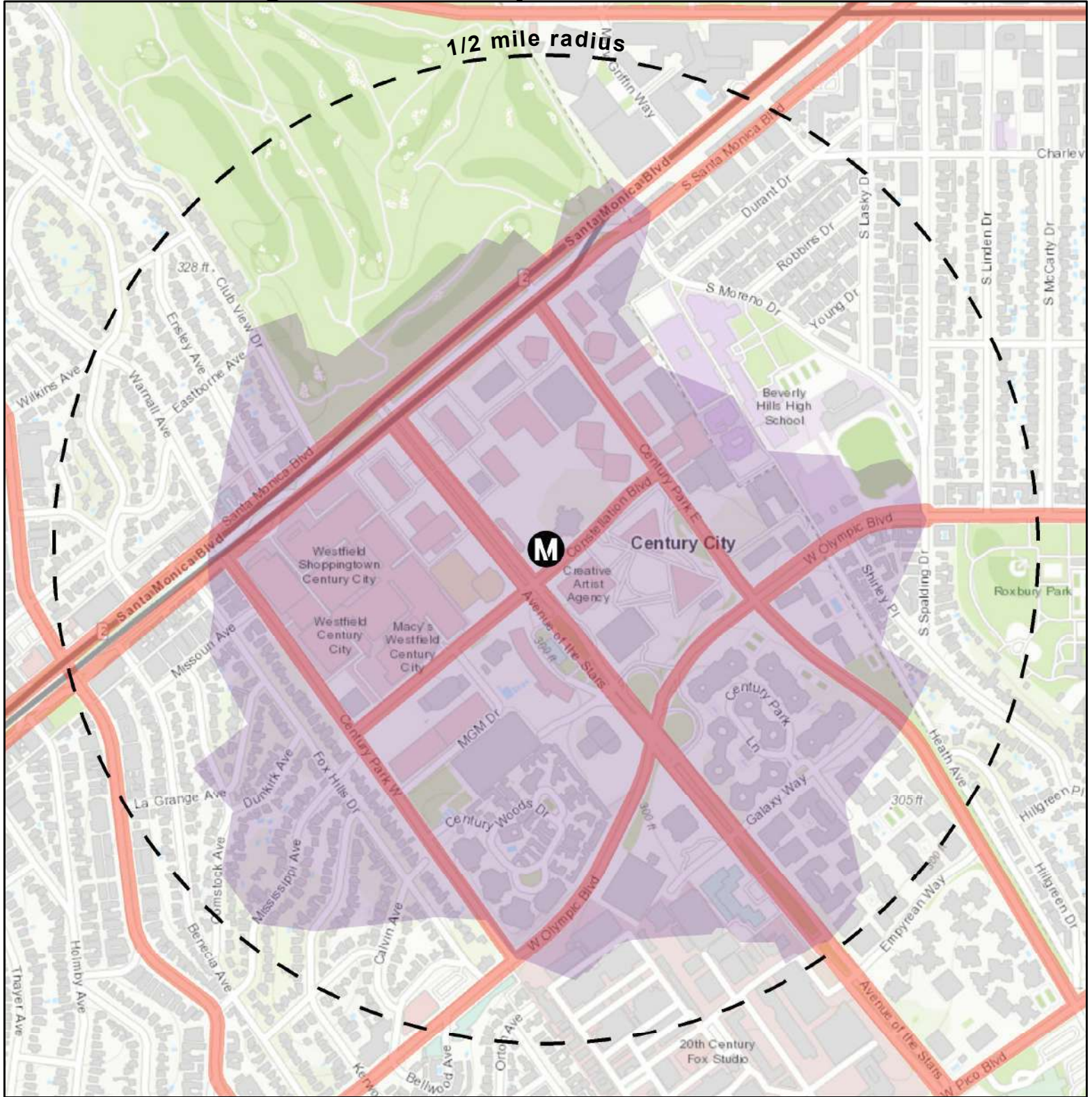





V-20



Century City / Constellation Station Streets with High Vehicular Speeds

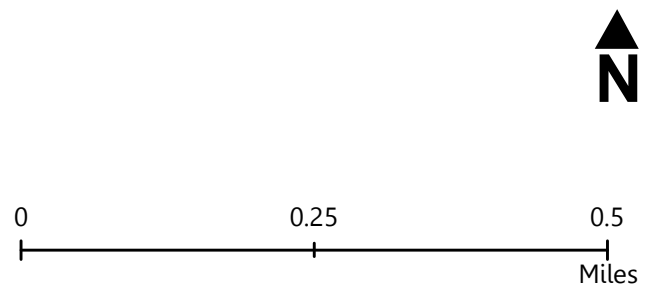
Figure 2.12



-  Streets with High Vehicular Speeds
-  Half-Mile Pedestrian Walk Shed
-  Century City / Constellation Station Half-Mile Radius

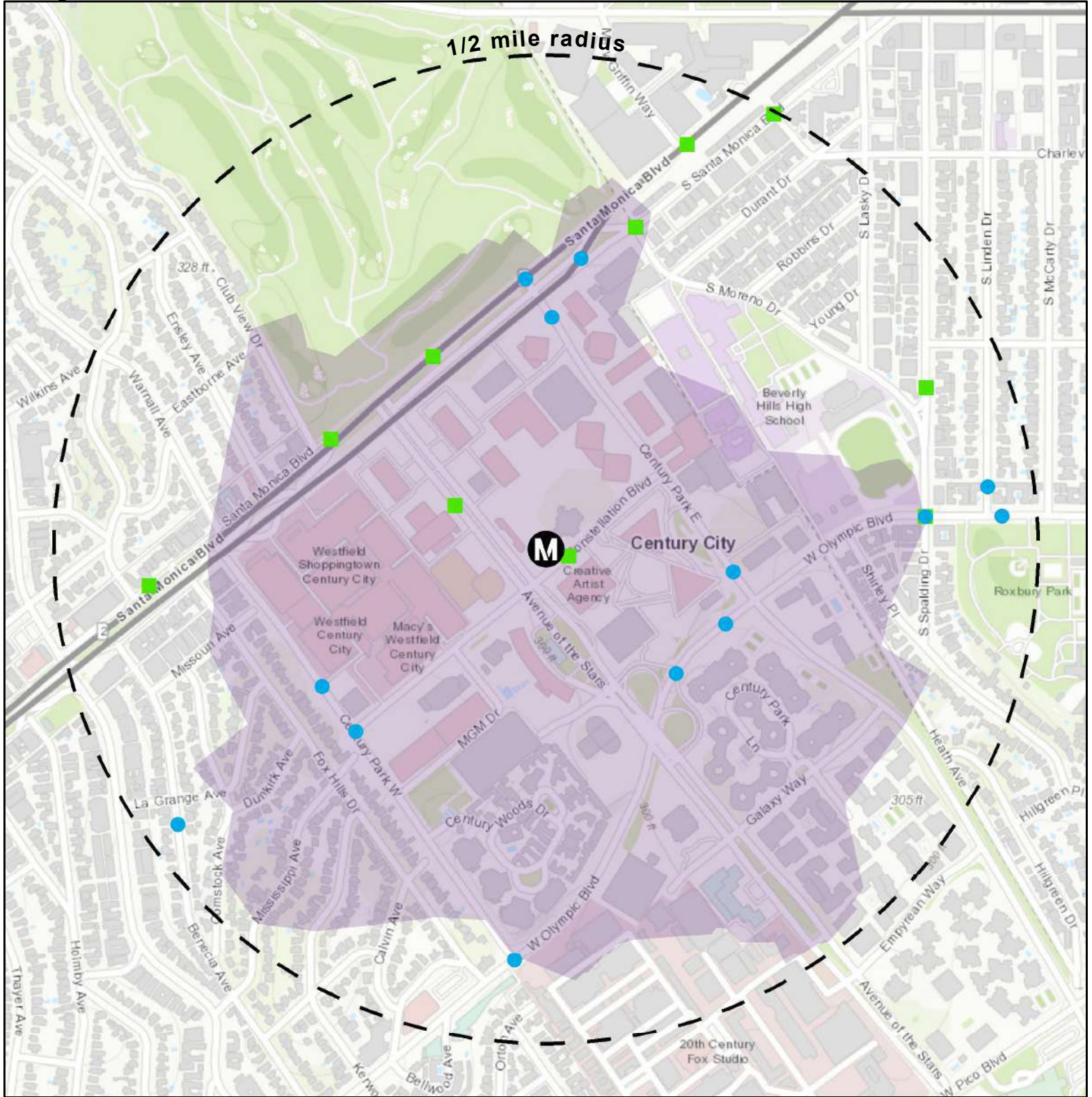


V-21



Century City / Constellation Station Bicycle and Pedestrian Collisions (2013 - 2017)

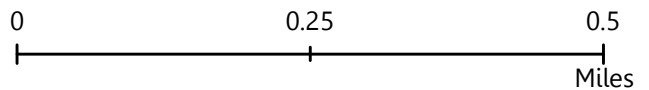
Figure 2.13



- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

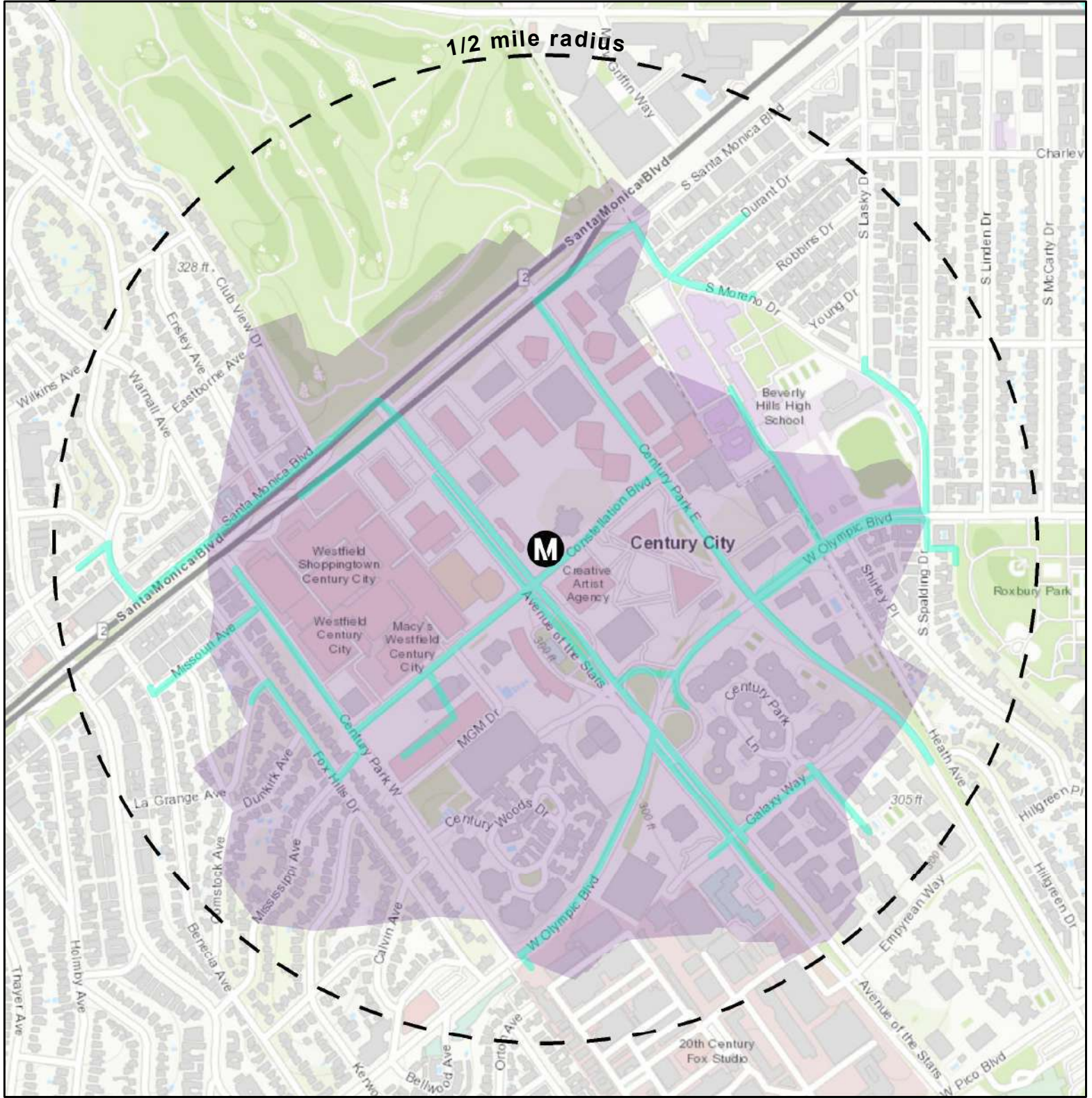


V-22



Century City / Constellation Station Key Access Corridors

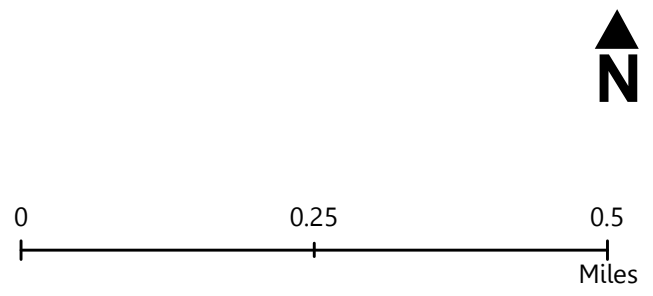
Figure 2.14



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Century City / Constellation Station Half-Mile Radius

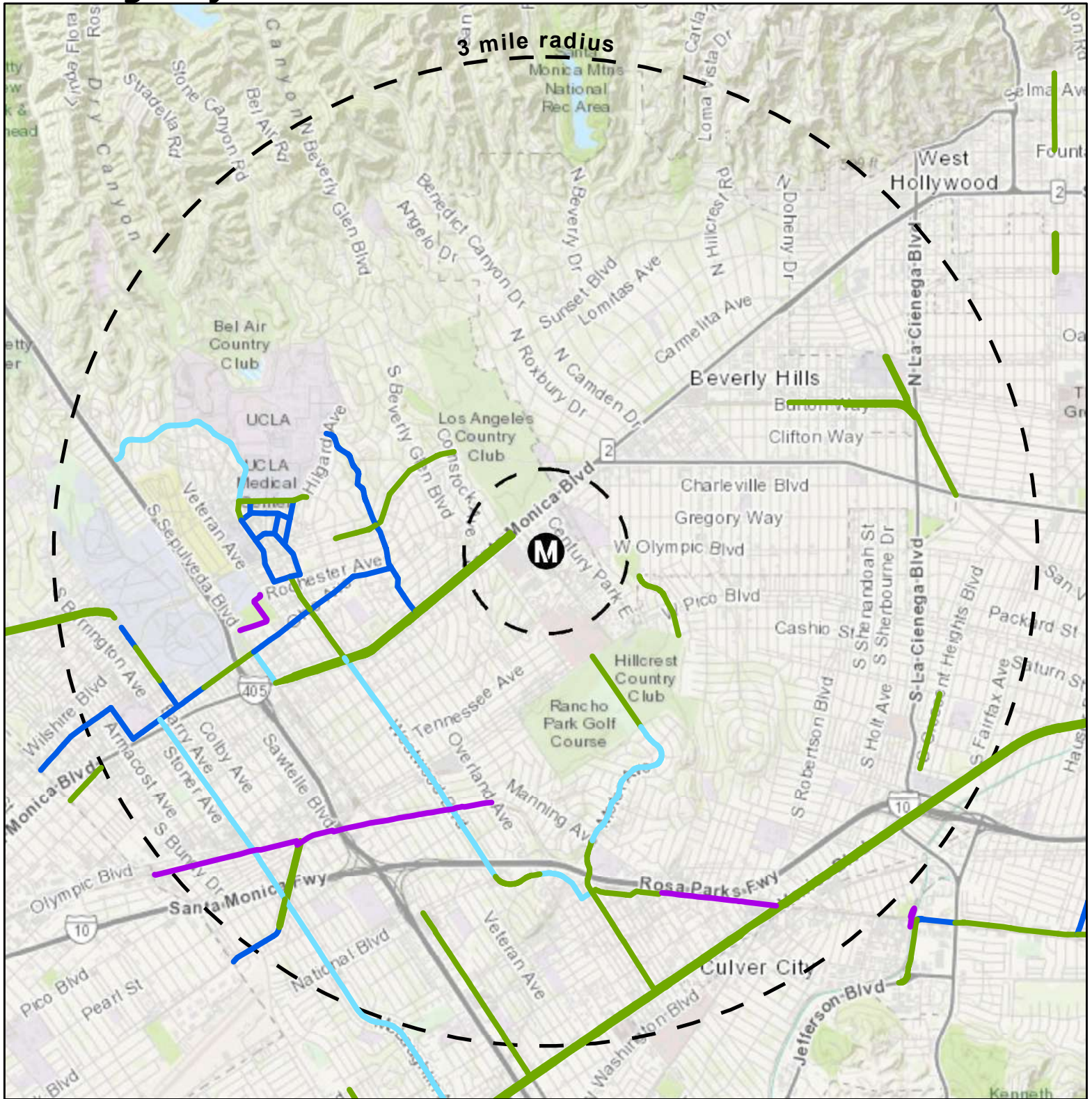


V-23



Century City / Constellation Station Existing Bicycle Facilities

Figure 2.15

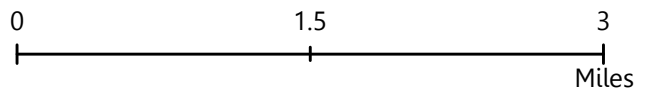


- Class I: Bike Path
- Class II: Bike Lane
- Class III: Sharrowed Bike Route
- Class III: Bike Route

CenturyCity / Constellation Station Half-Mile and Three-Mile Radii

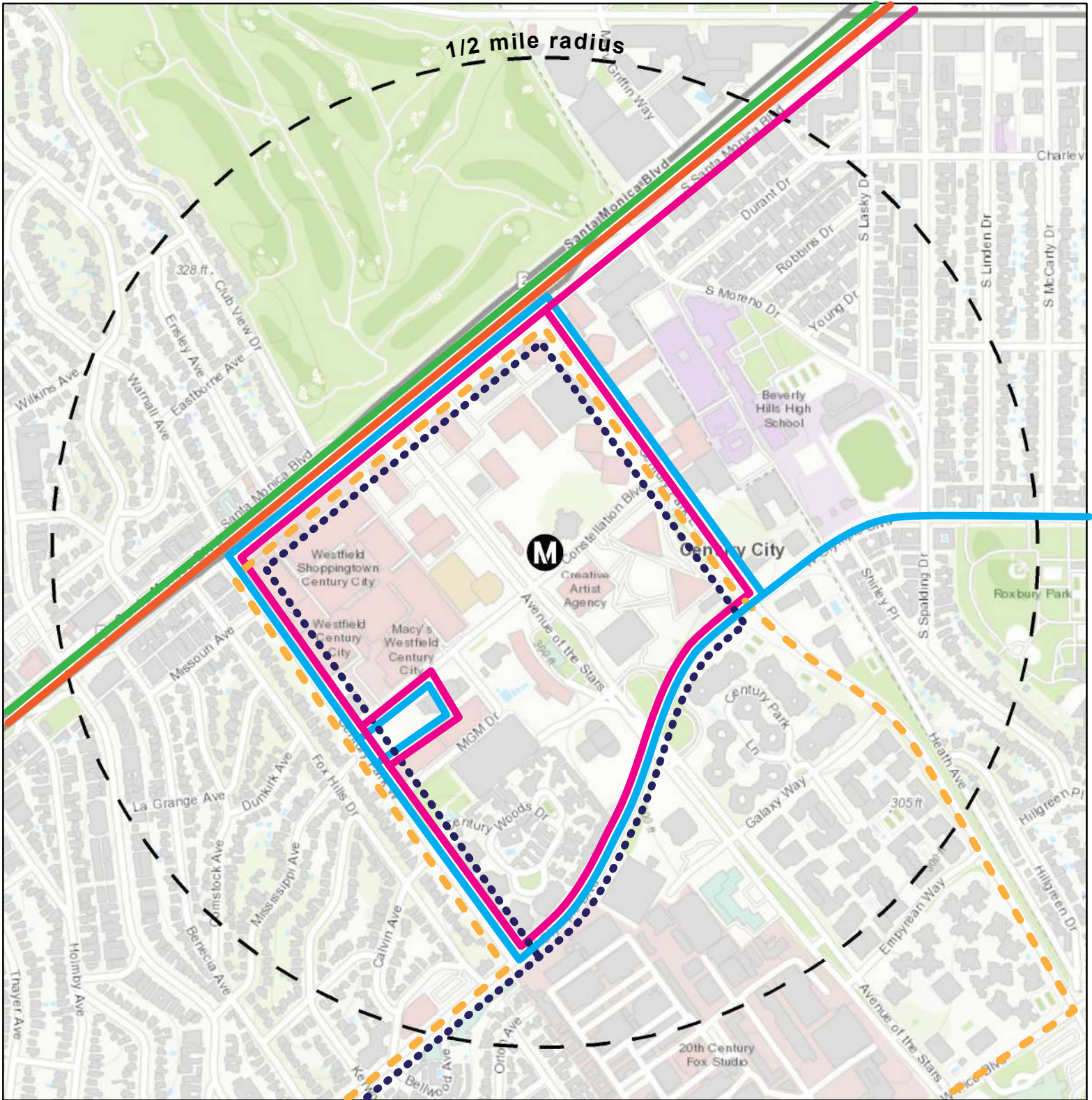


V-24



Century City / Constellation Station Bus Transit Routes

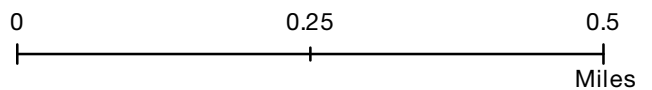
Figure 2.16



- | | | |
|---|--|--|
| 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 |

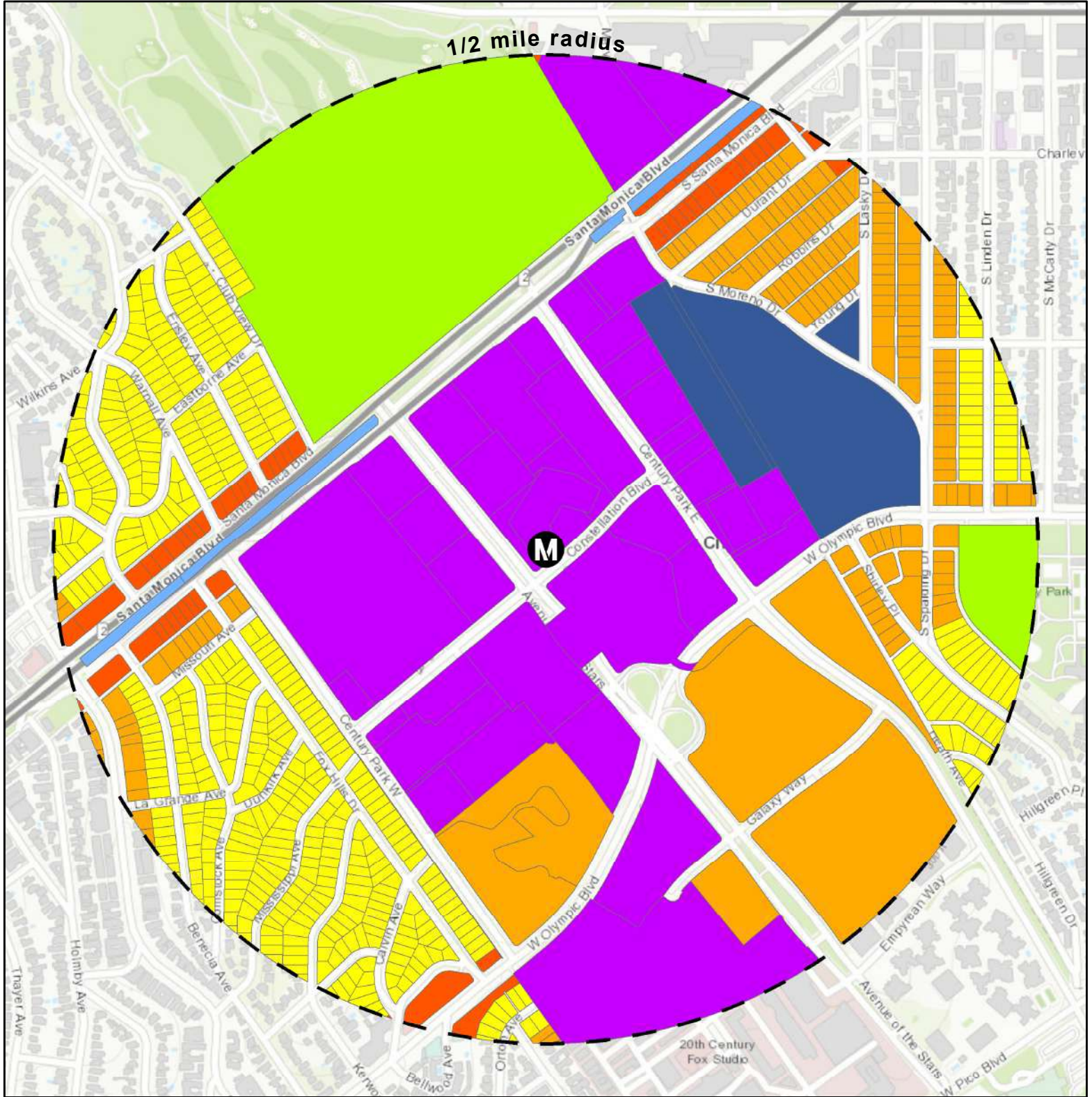


V-25



Century City / Constellation Station Land Use

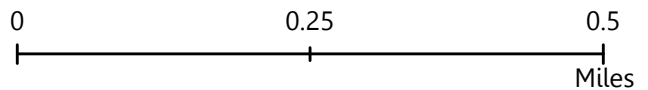
Figure 2.17



- Low-Density Residential
- Commercial
- Public Facilities
- Medium-Density Residential
- Regional Commercial
- Open Space
- Public School

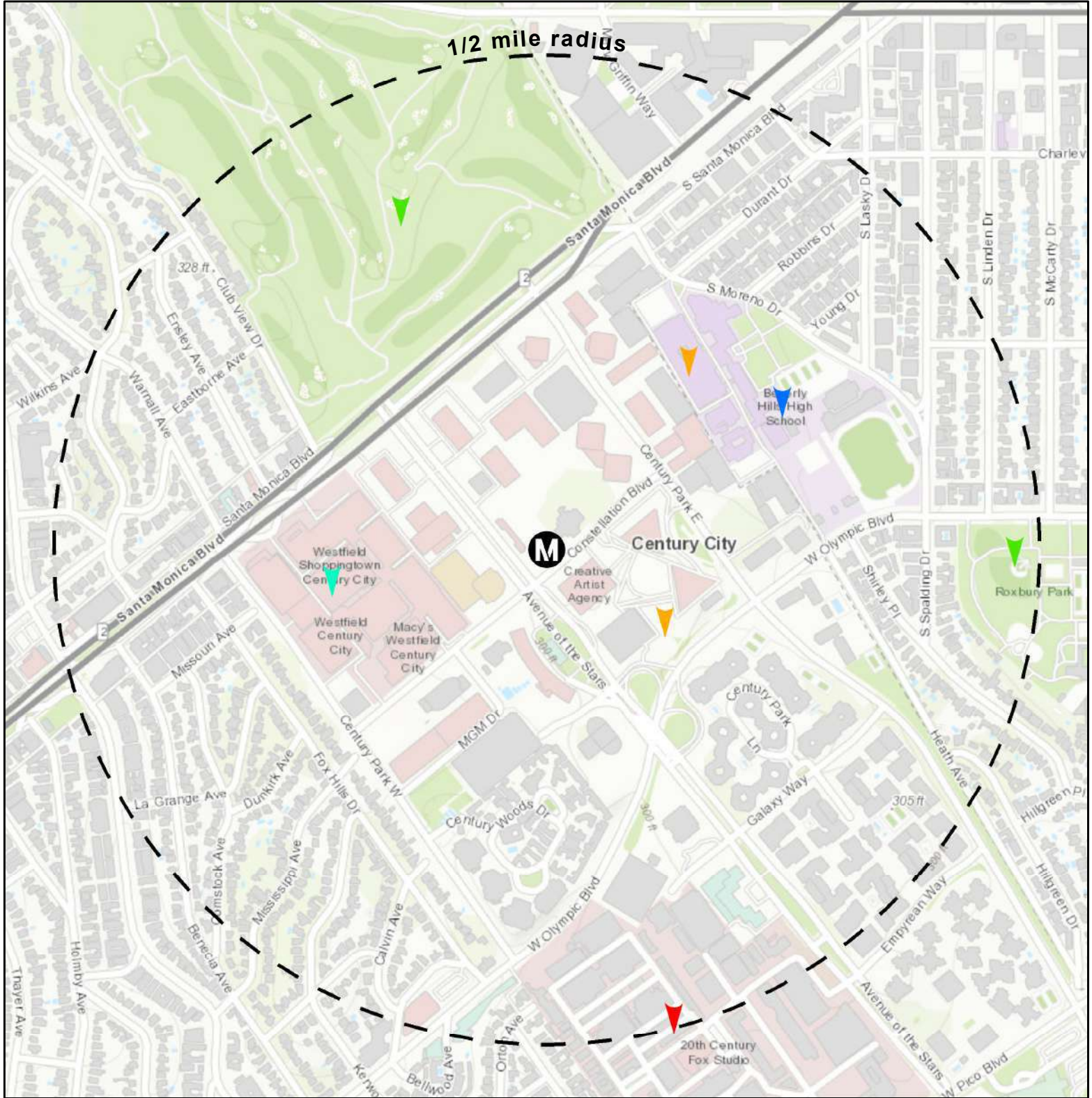


V-26



Century City / Constellation Station Points of Interest

Figure 2.18

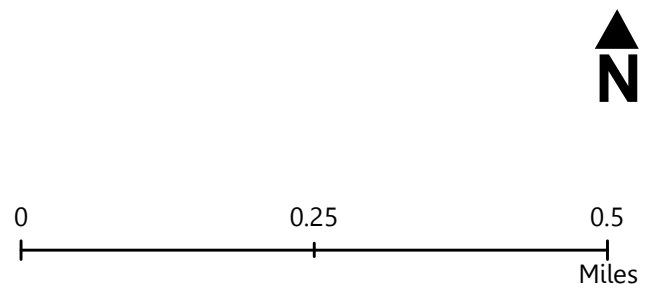


- ▲ Art
- ▼ Education
- ▼ Public
- ▲ Attraction
- ▼ Open Space
- ▼ Shopping

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.

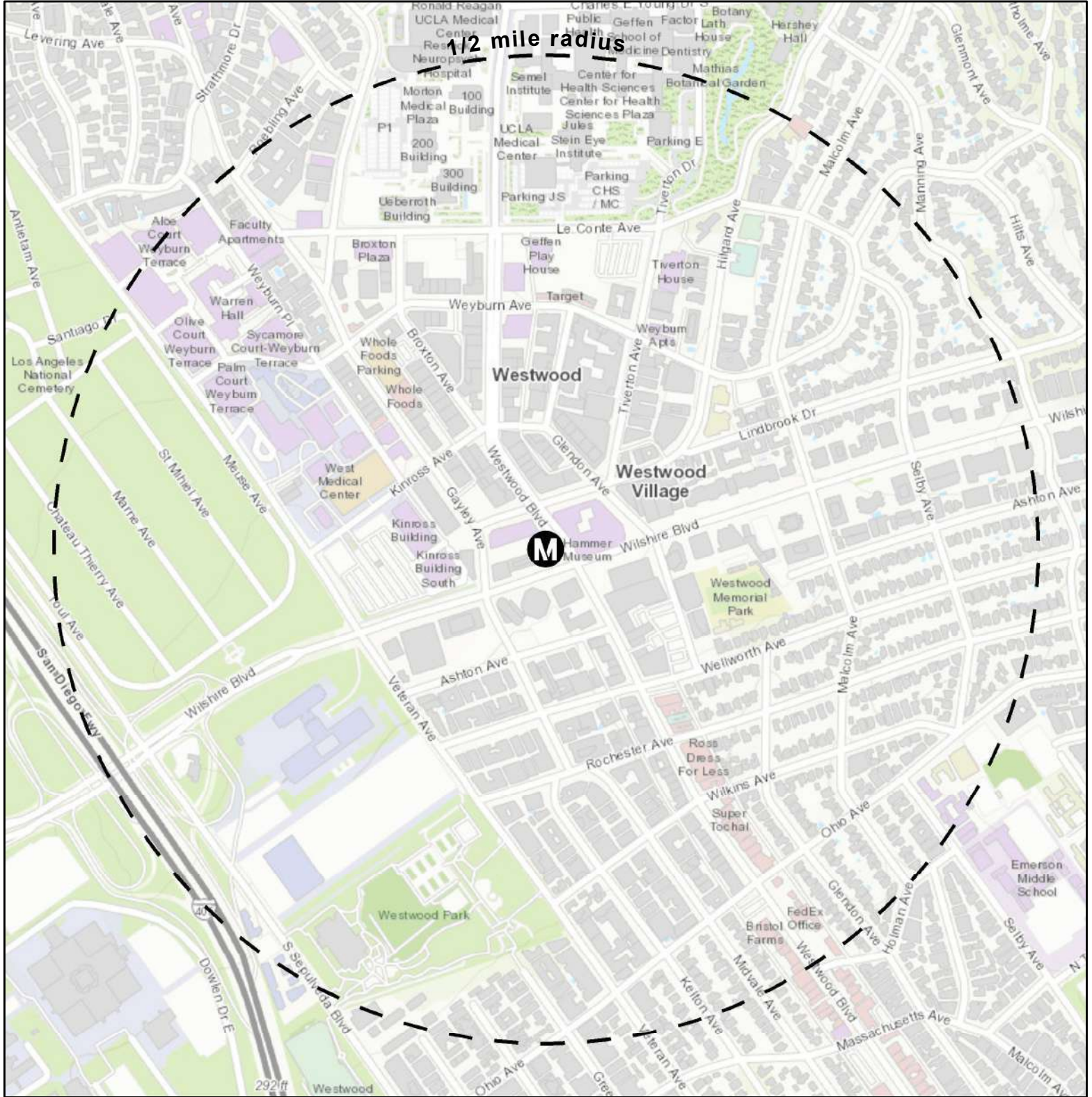
Identifying land use in the half-mile radius study area is crucial in identifying the type of users the Purple Line will service. There is a wide range of uses in the study area, including single-family, multi-family, office, commercial, public facilities, education, and open space.

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

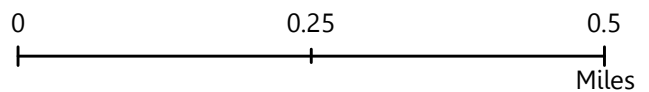
Figure 2.19



 Westwood / UCLA Station Half-Mile Radius

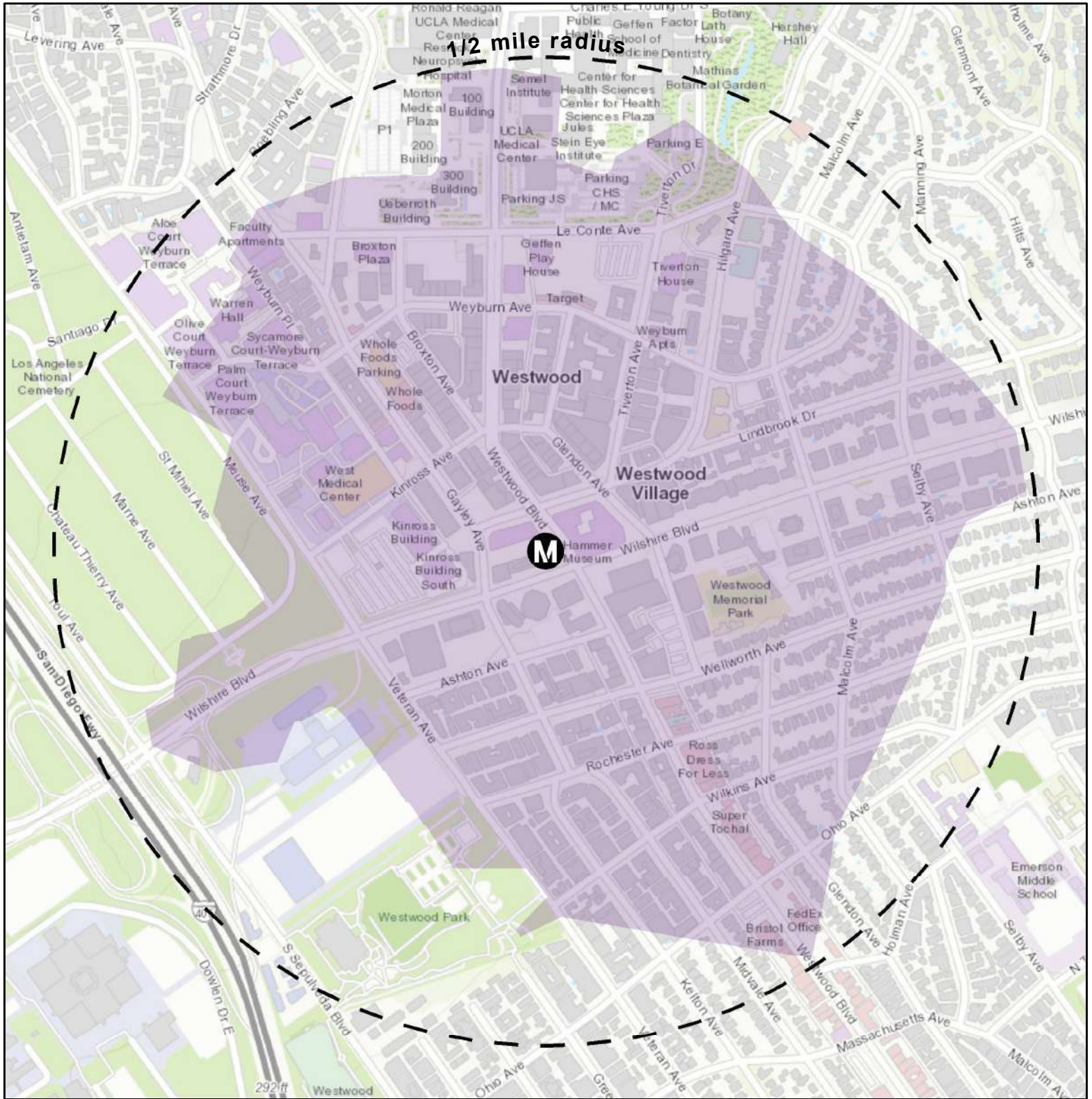


V-30



Westwood / UCLA Station Half-Mile Pedestrian Walk Shed

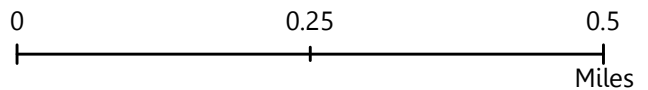
Figure 2.20



- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

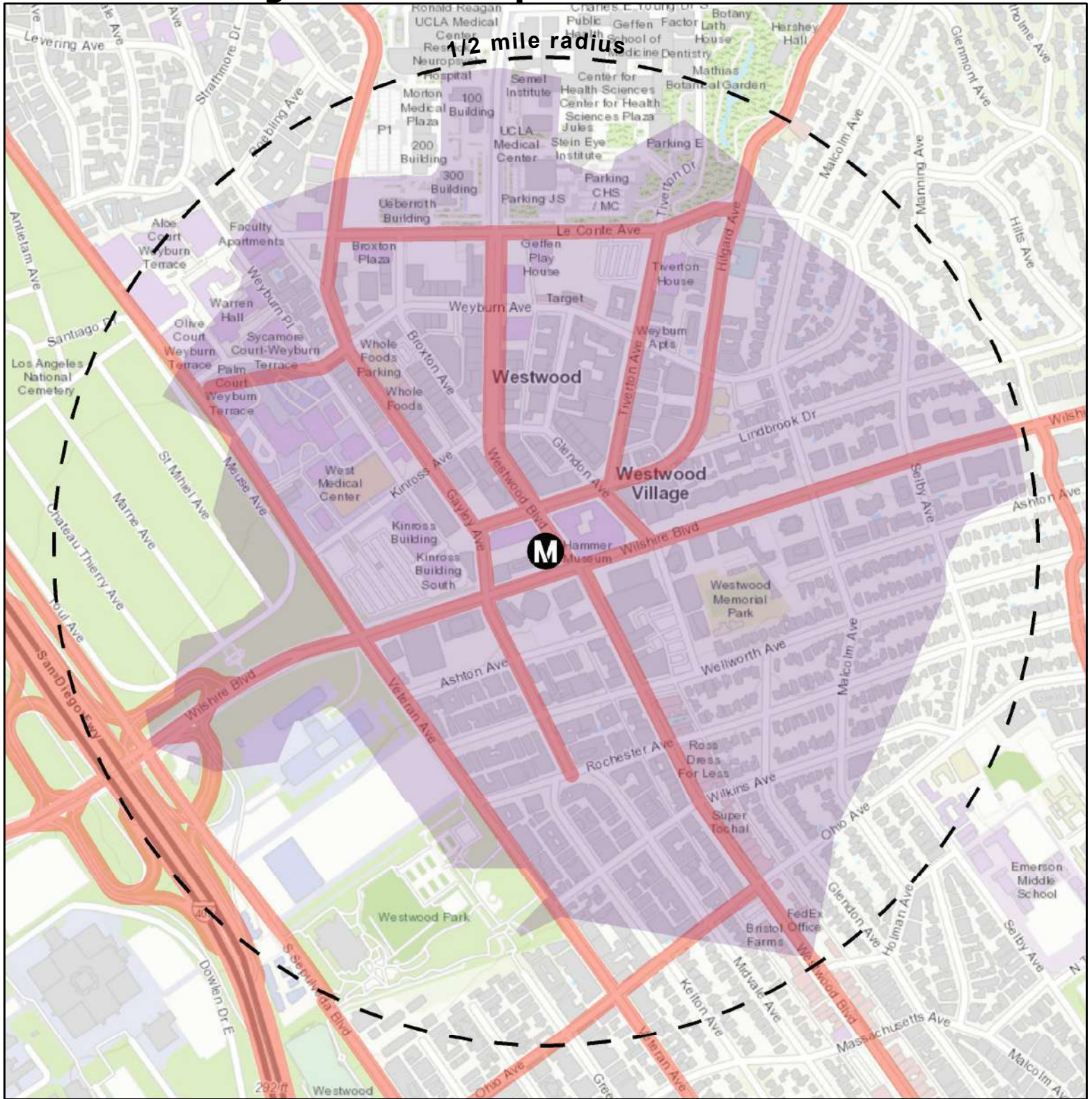


V-31



Westwood / UCLA Station Streets with High Vehicular Speeds

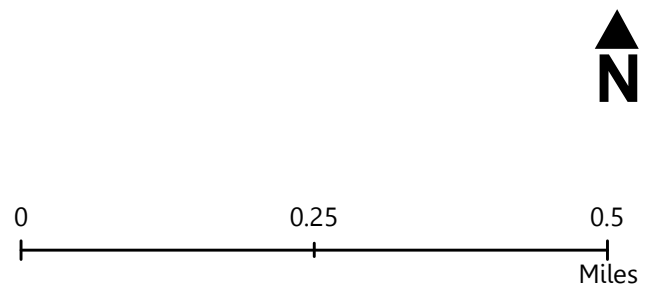
Figure 2.21



- Streets with High Vehicular Speeds
- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

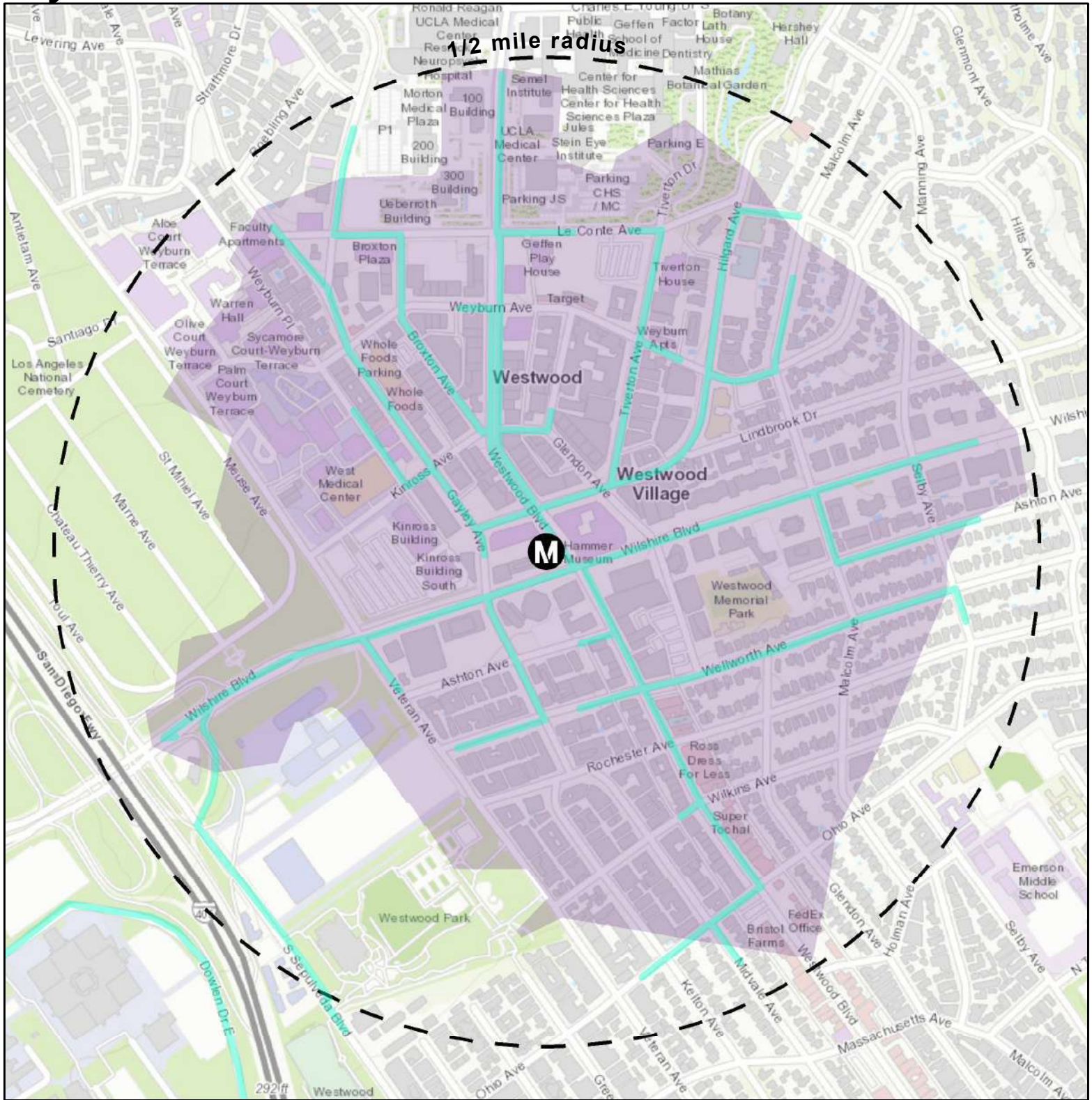


V-32



Westwood / UCLA Station Key Access Corridors

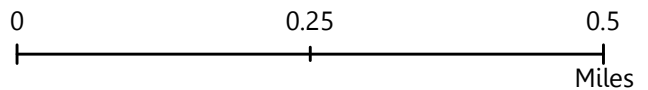
Figure 2.23



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Westwood / UCLA Station Half-Mile Radius

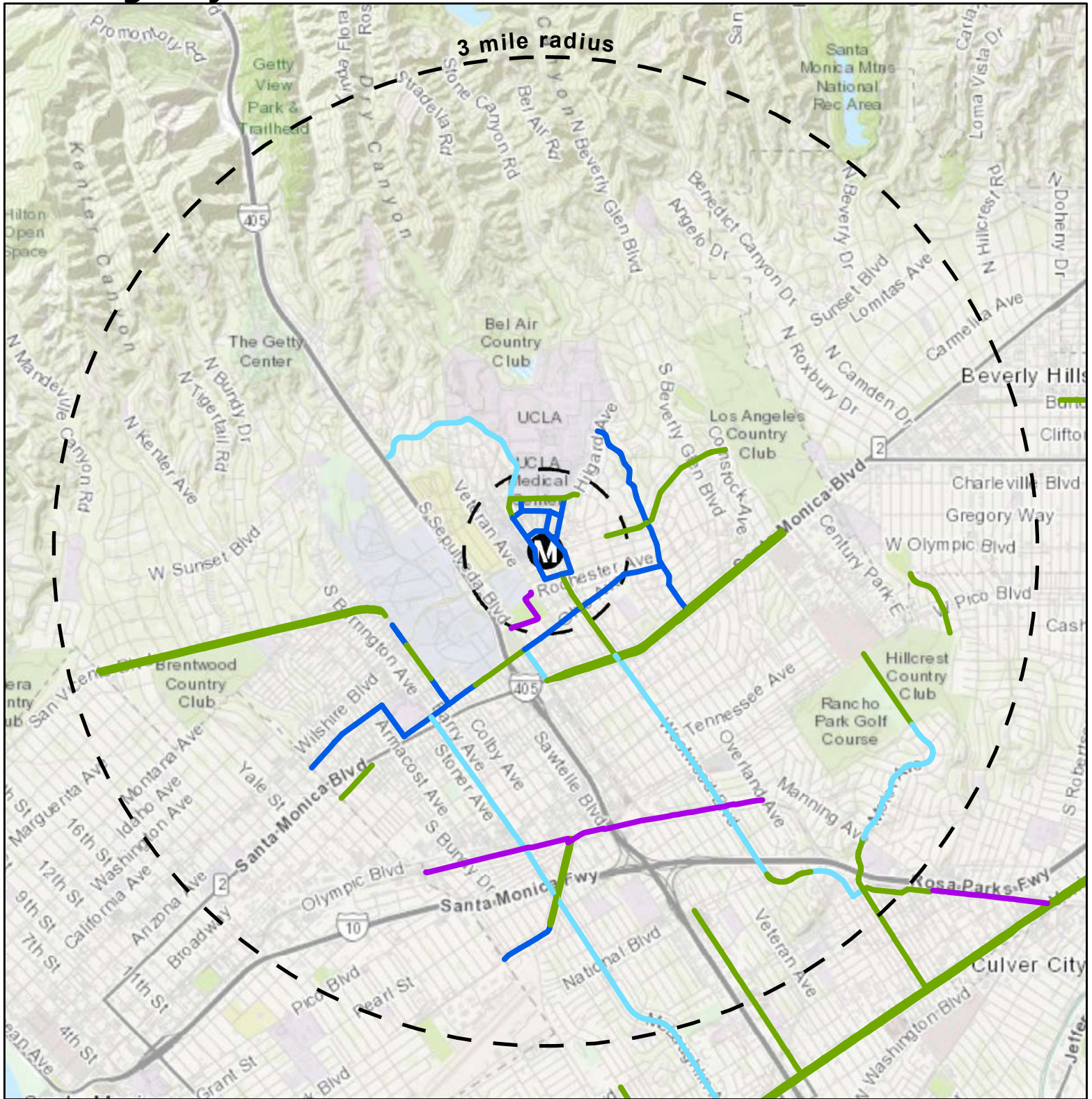


V-34



Westwood / UCLA Station Existing Bicycle Facilities

Figure 2.24

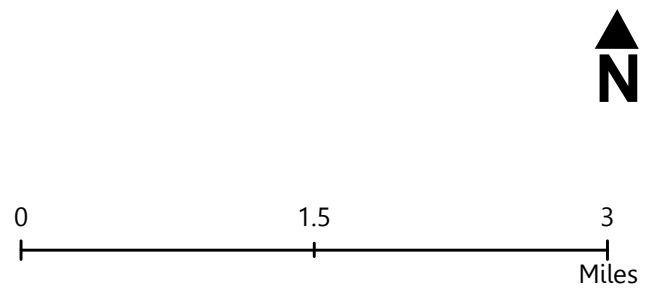


- Class I: Bike Path
- Class III: Sharrows Bike Route
- Class II: Bike Lane
- Class III: Bike Route

Westwood / UCLA Station Half-Mile and Three-Mile Radii

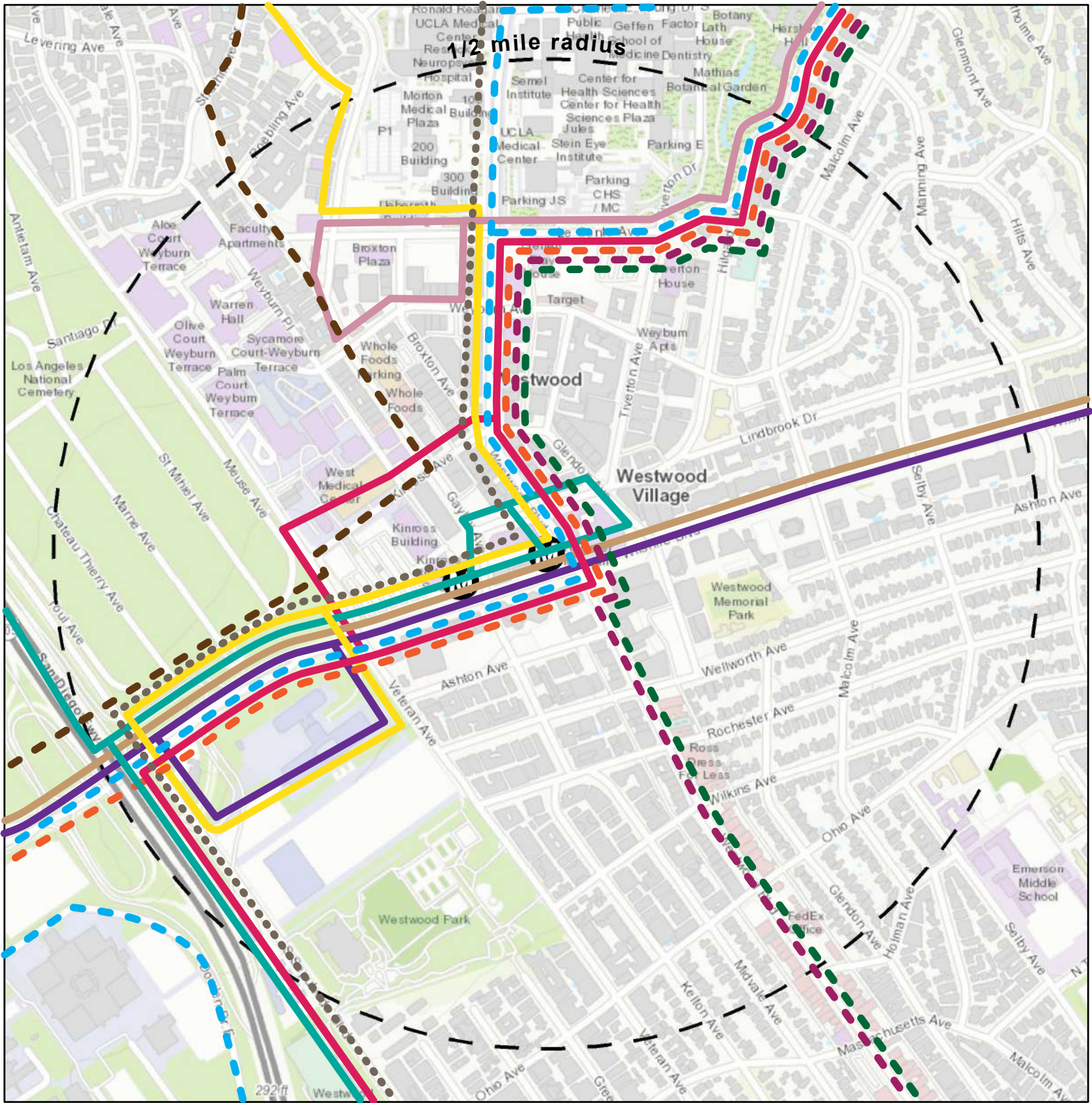


V-35



Westwood / UCLA Station Bus Transit Routes

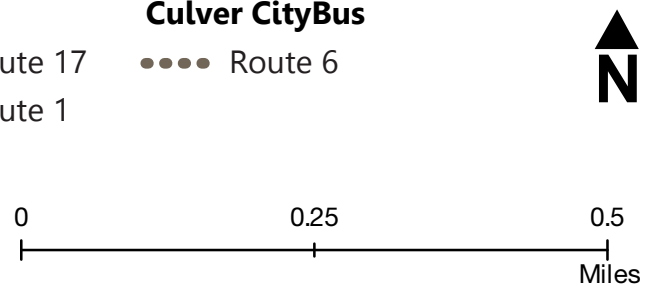
Figure 2.25



- | Metro | | Big Blue Bus | | Culver CityBus | |
|-------|----------------|--------------|-----------|----------------|----------|
| | Route 720 | | Route 18 | | Route 6 |
| | Route 20 | | Route 8 | | Route 17 |
| | Route 2 | | Route 602 | | Route 1 |
| | Route 788 | | Route 2 | | |
| | Route 234, 734 | | | | |

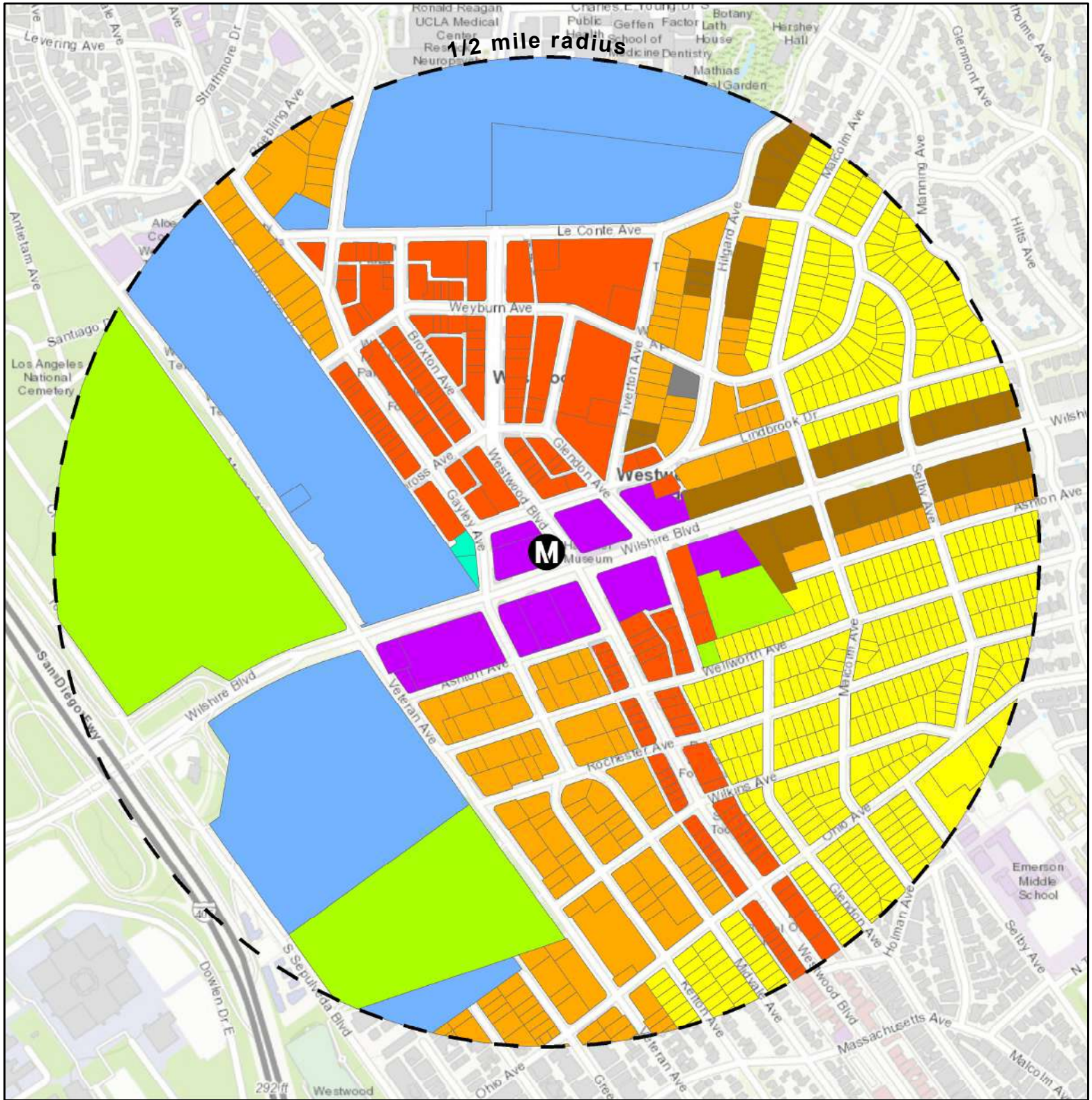


V-36



Westwood / UCLA Station Land Use

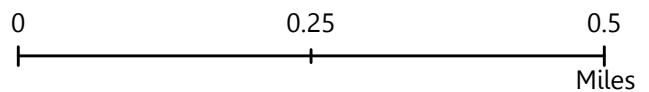
Figure 2.26



- | | | |
|----------------------------|---------------------|-------------------|
| Low-Density Residential | Commercial | Public Facilities |
| Medium-Density Residential | Regional Commercial | Open Space |
| High-Density Residential | Regional Center | Parking |

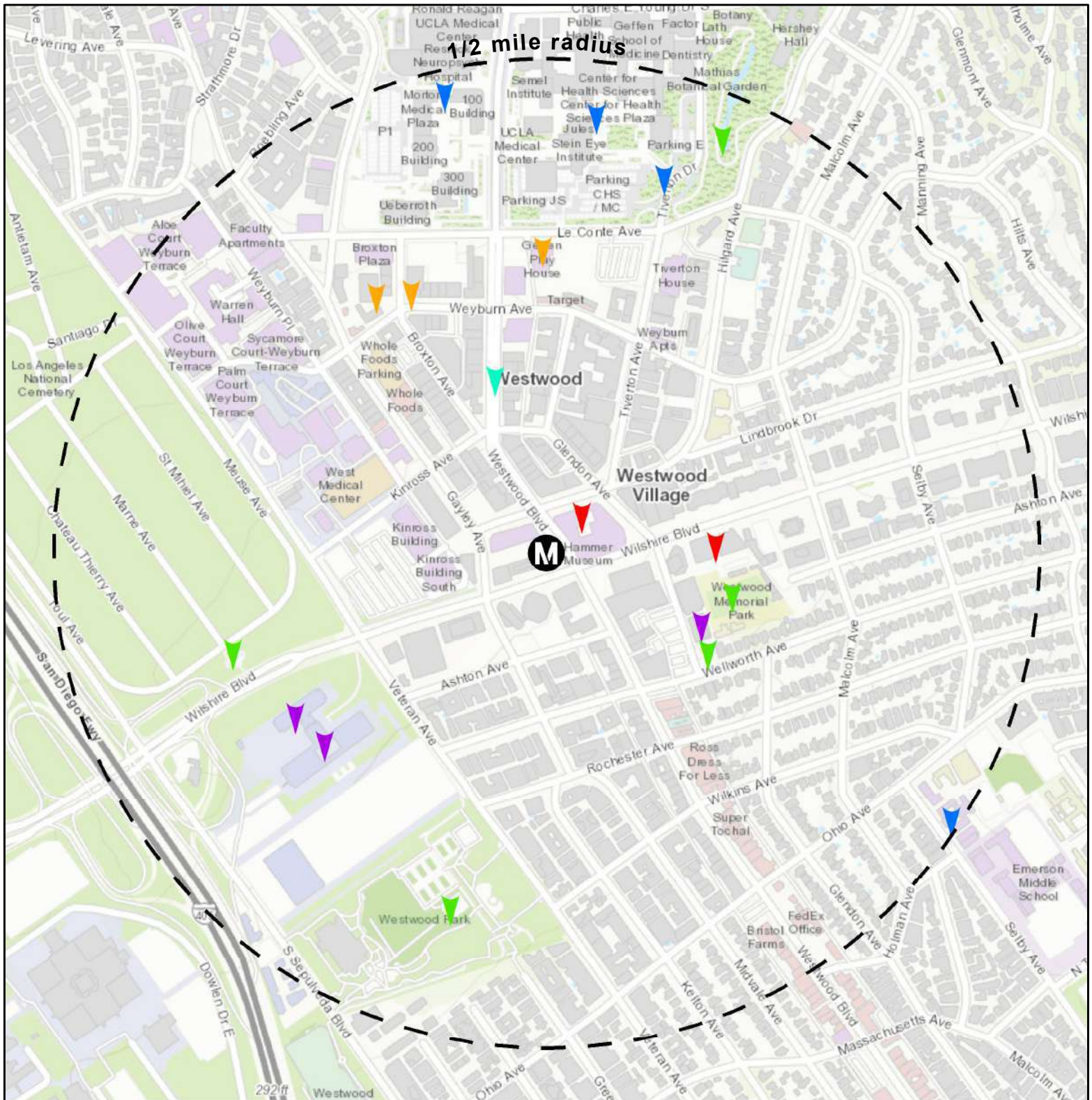


V-37



Westwood / UCLA Station Points of Interest

Figure 2.27

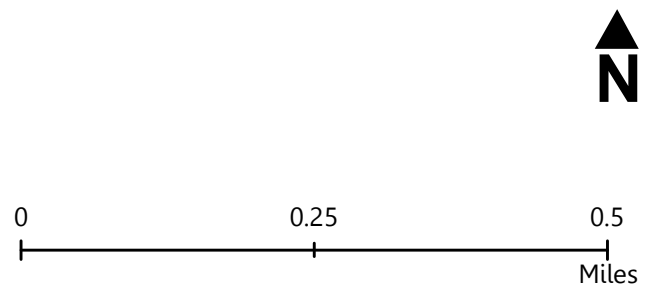


- Art
- Education
- Public
- Attraction
- Open Space
- Shopping

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.

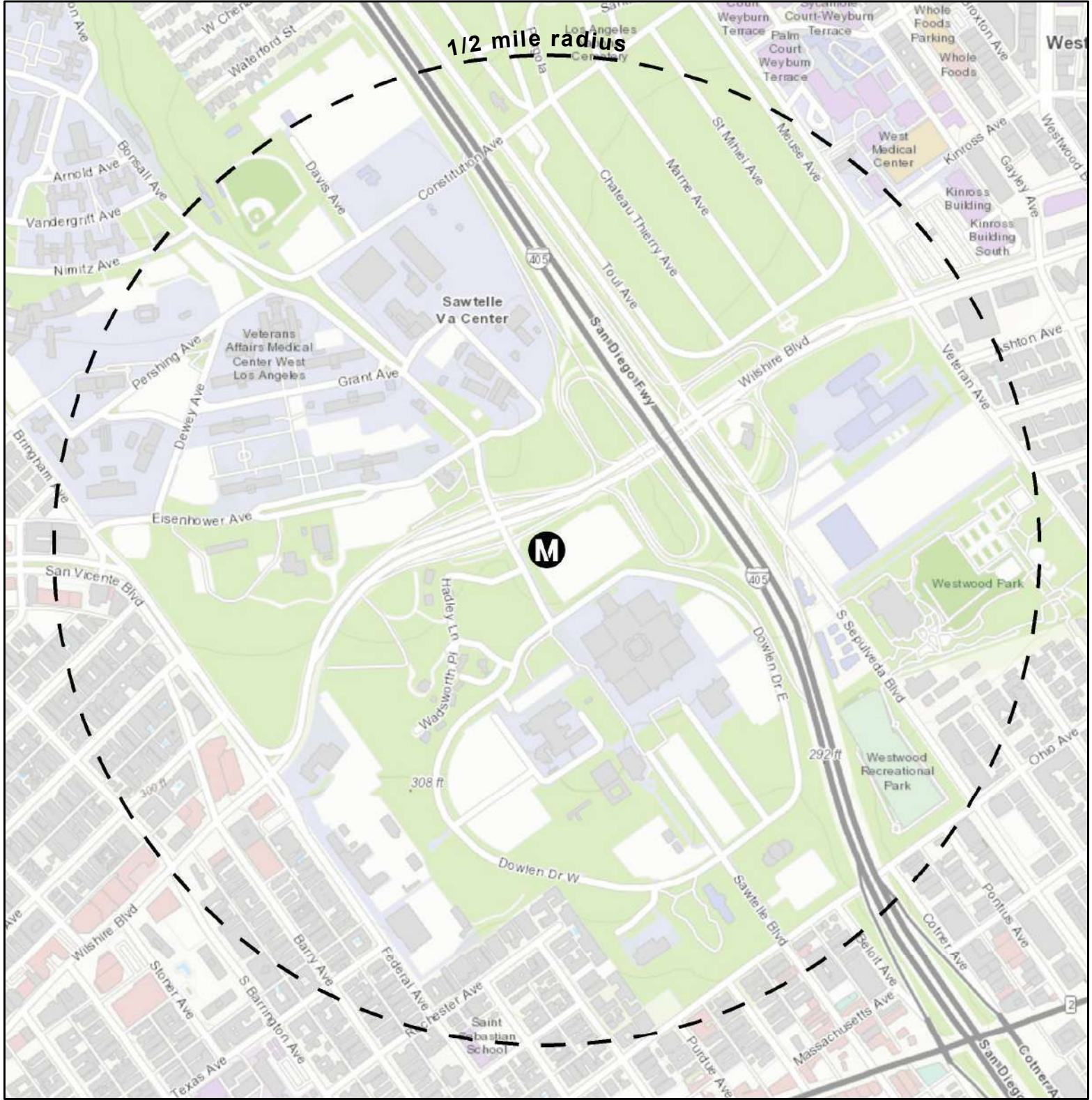
Identifying land use in the half-mile radius study area is crucial in identifying the type of users the Purple Line will service. The majority of land use is dedicated to public use for the VA Hospital campus, with the small remainder for open space to the east and multi-family and office to the west.

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

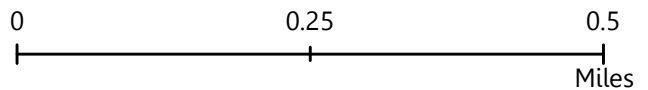
Figure 2.28



Westwood / VA Hospital Station Half-Mile Radius

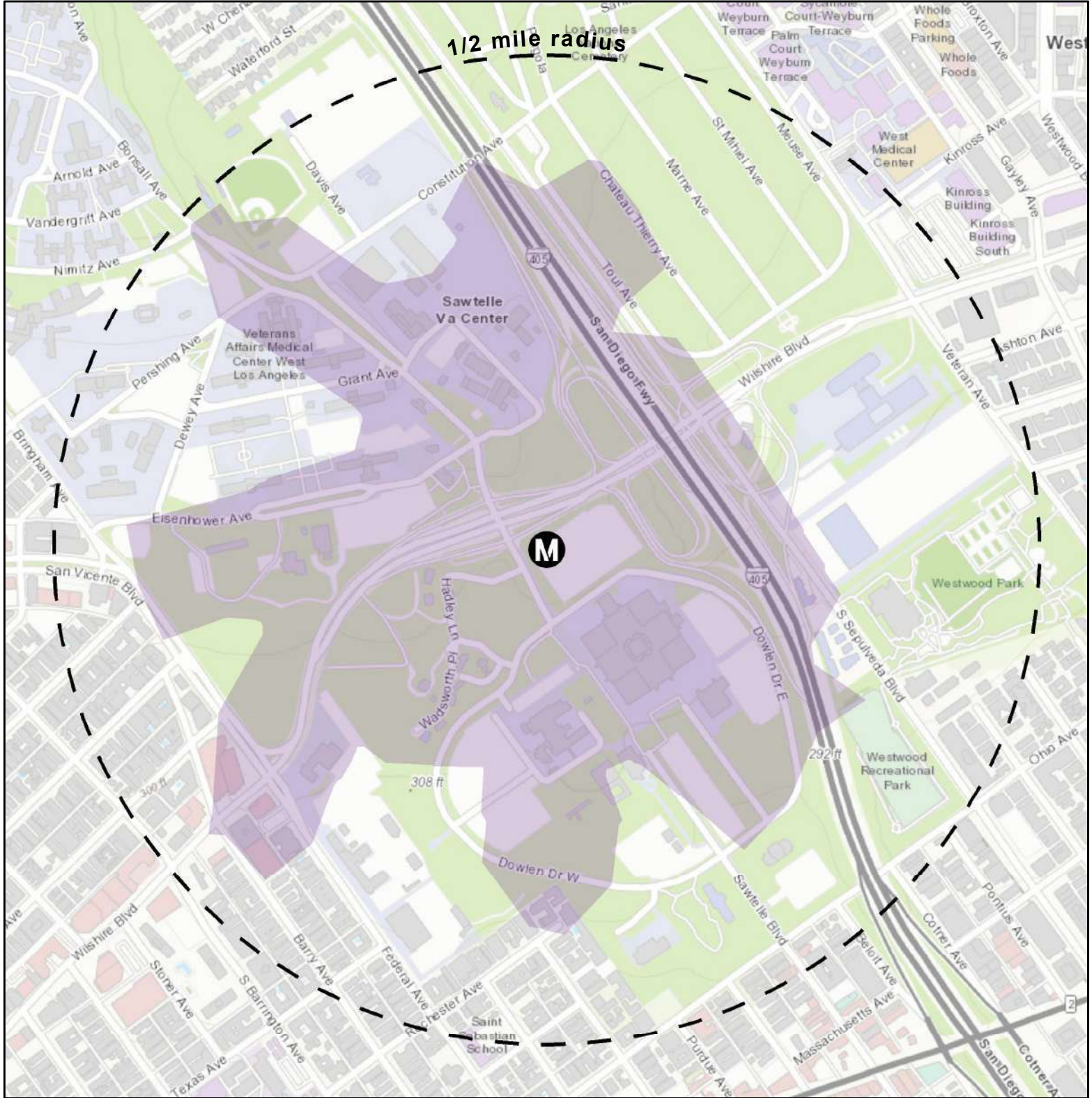


V-41



Westwood / VA Hospital Station Half-Mile Pedestrian Walk Shed

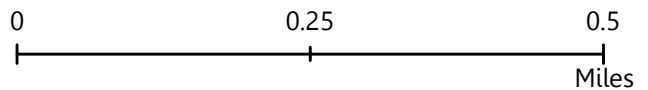
Figure 2.29



- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Station Half-Mile Radius

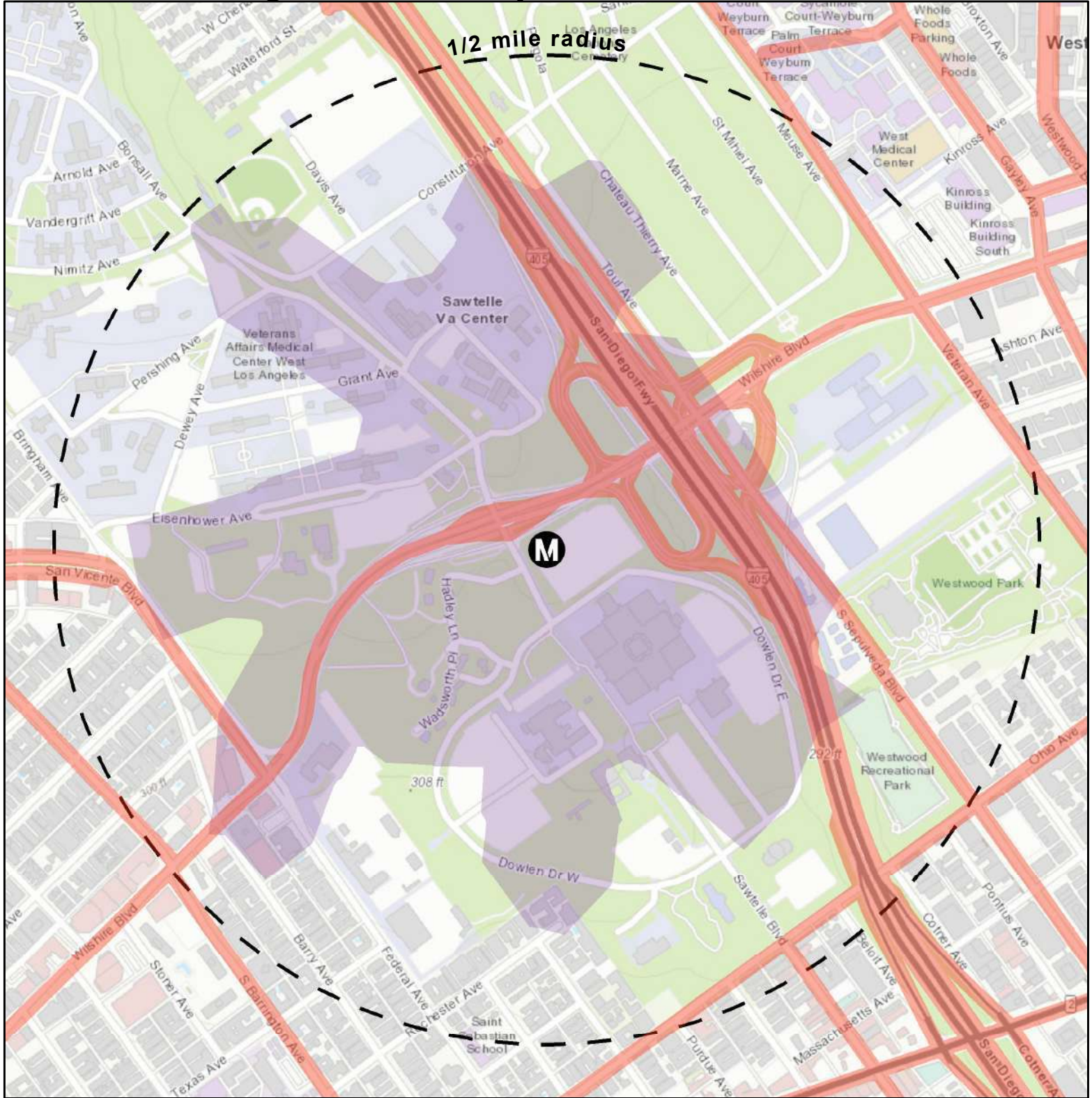





V-42



Westwood / VA Hospital Station Streets with High Vehicular Speeds

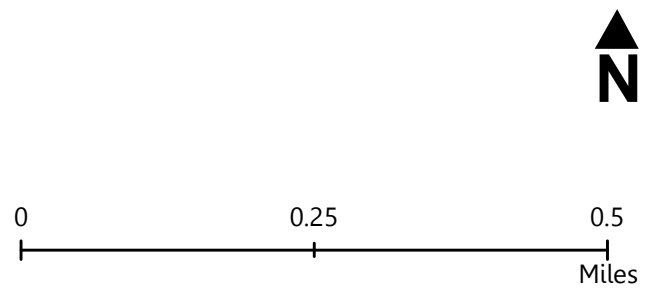
Figure 2.30



-  Streets with High Vehicular Speeds
-  Westwood VA Hospital Station Half-Mile Radius
-  Half-Mile Pedestrian Walk Shed

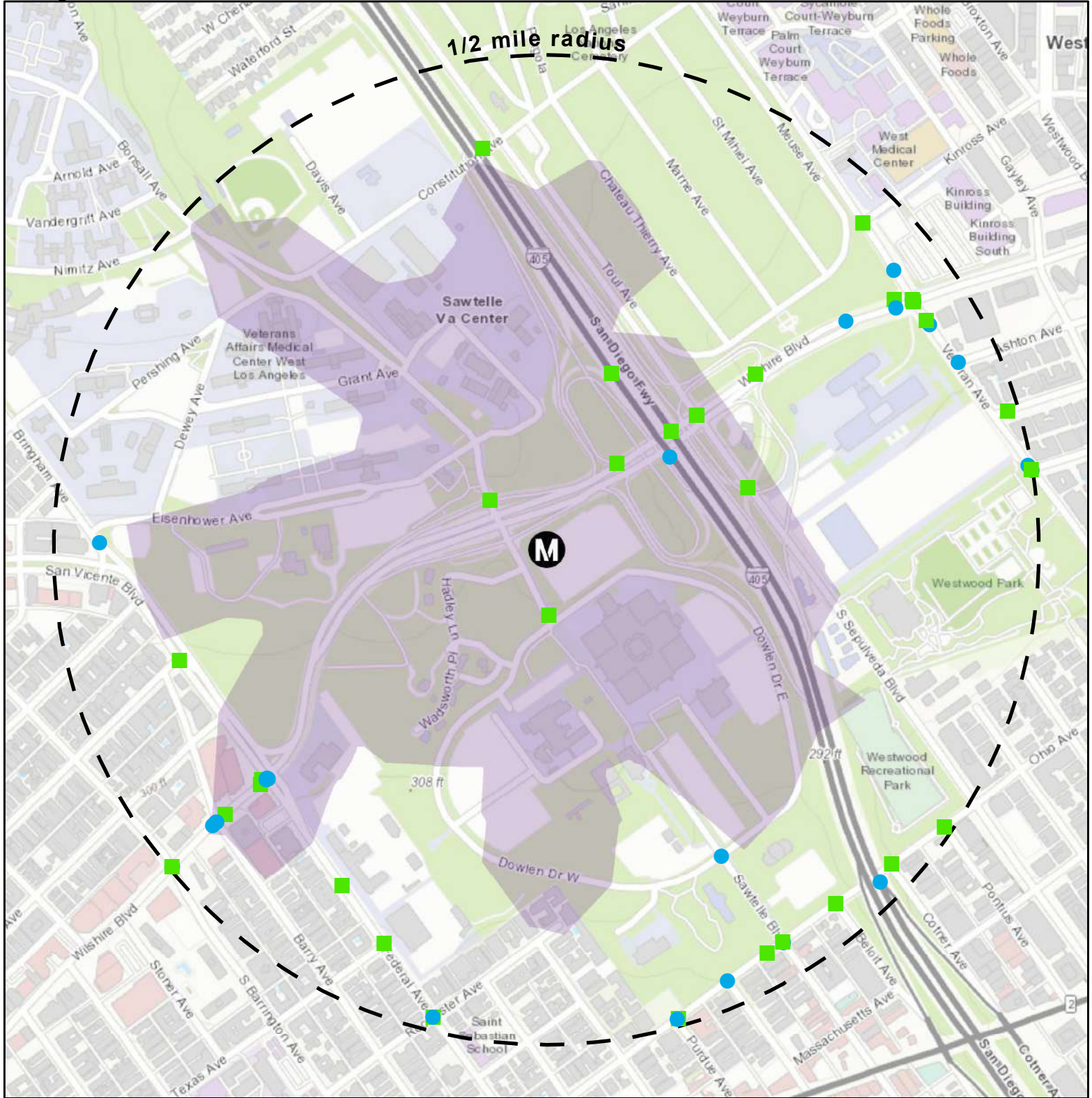


V-43



Westwood / VA Hospital Station Bicycle and Pedestrian Collisions (2013 - 2017)

Figure 2.31



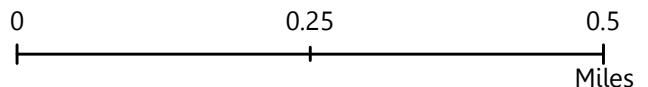
- Bicycle Collisions
- Pedestrian Collisions
- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Half-Mile Radius



* A pedestrian fatality occurred at the intersection of Wilshire Blvd and San Vicente Blvd (2017)

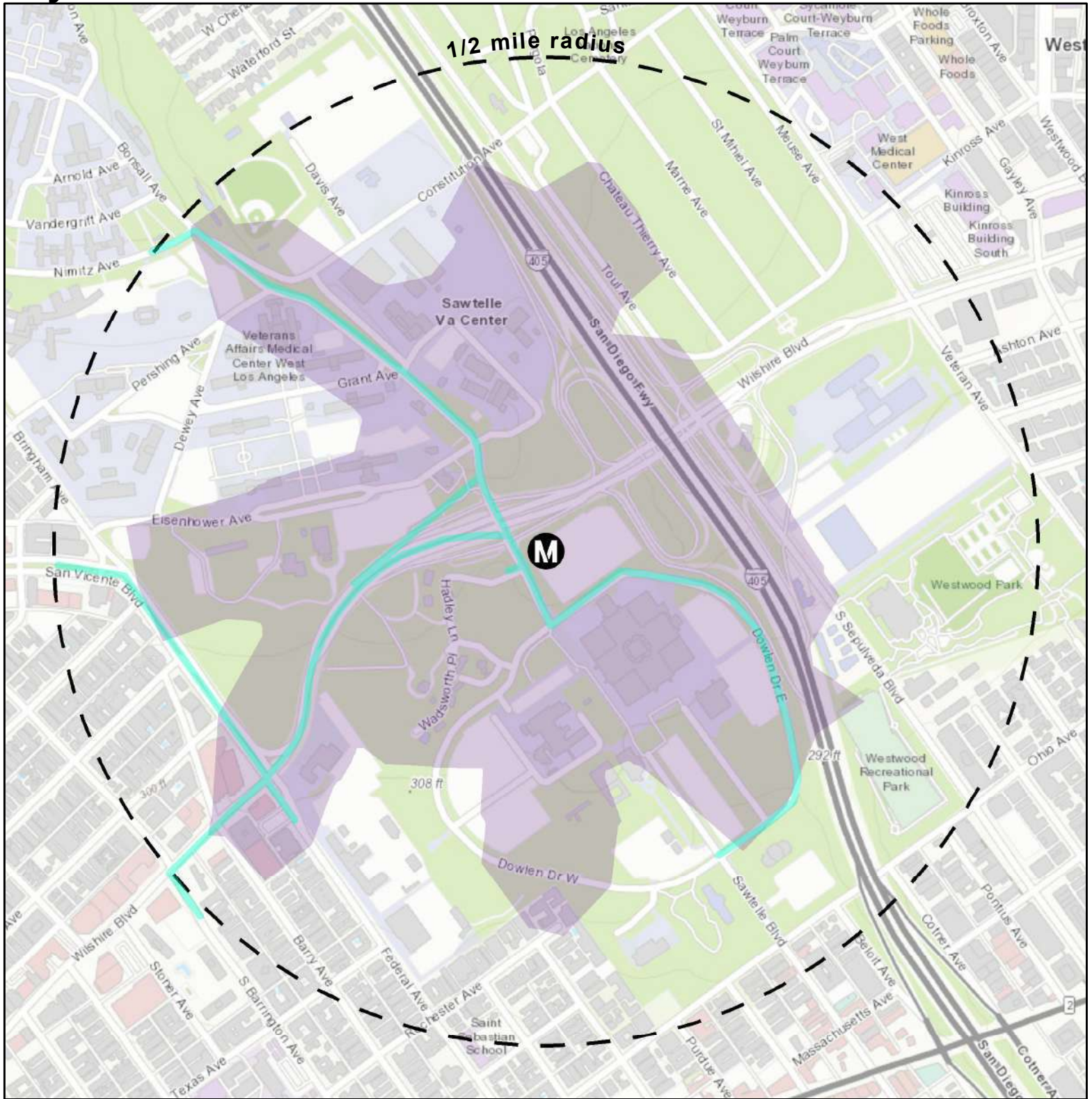


V-44



Westwood / VA Hospital Station Key Access Corridors

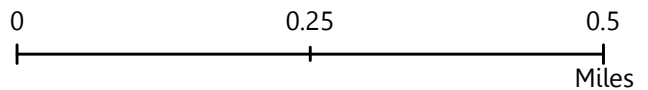
Figure 2.32



- Key Access Corridors
- Half-Mile Pedestrian Walk Shed
- Westwood / VA Hospital Station Half-Mile Radius

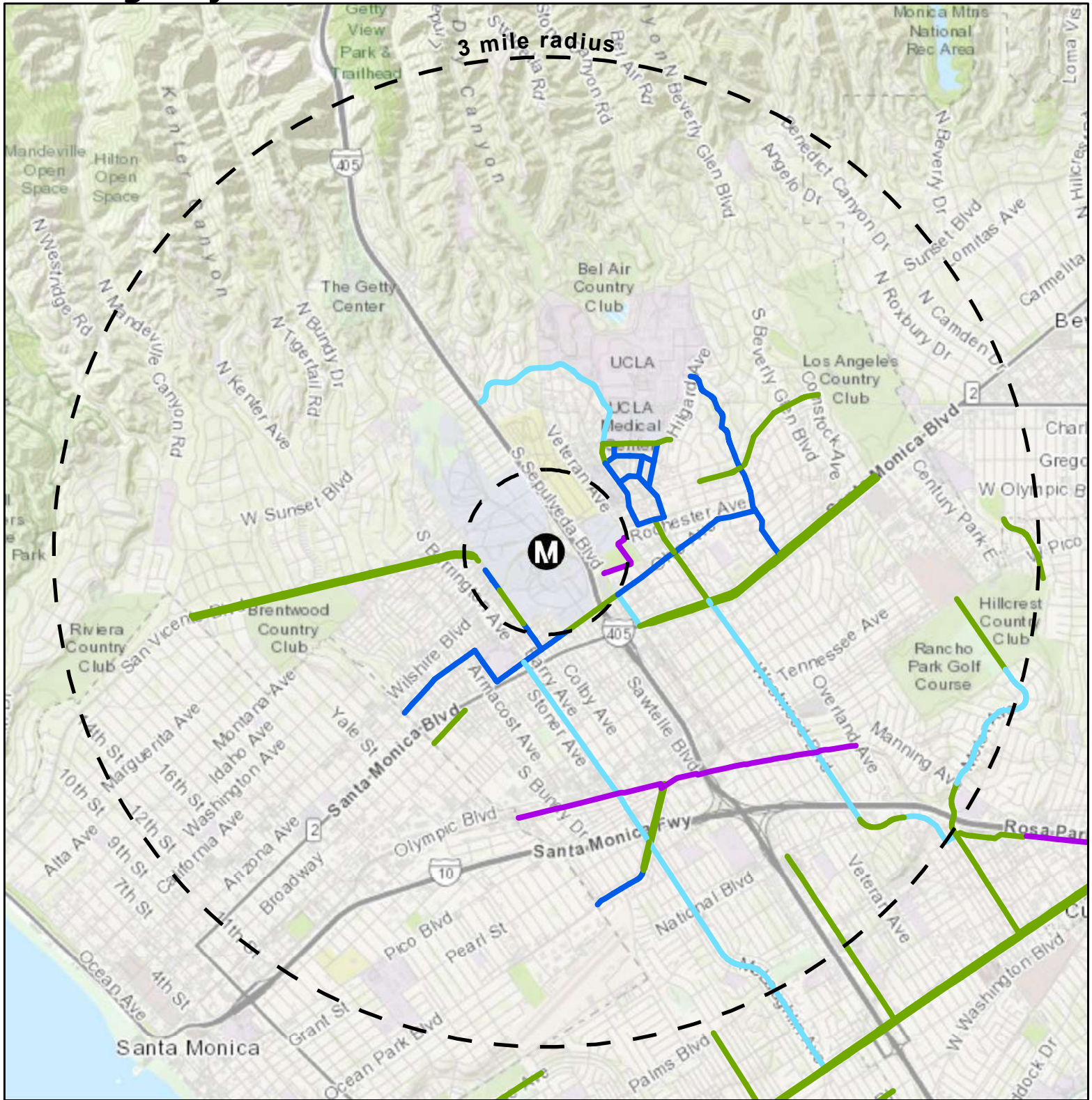


V-45



Westwood / VA Hospital Station Existing Bicycle Facilities

Figure 2.33



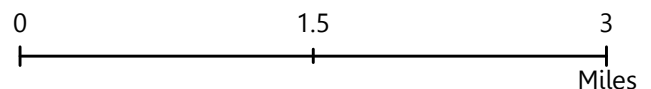
— Class I: Bike Path
 — Class III: Sharrowed Bike Route

— Class II: Bike Lane
 — Class III: Bike Route

 Westwood / VA Hospital Station Half-Mile and Three-Mile Radii

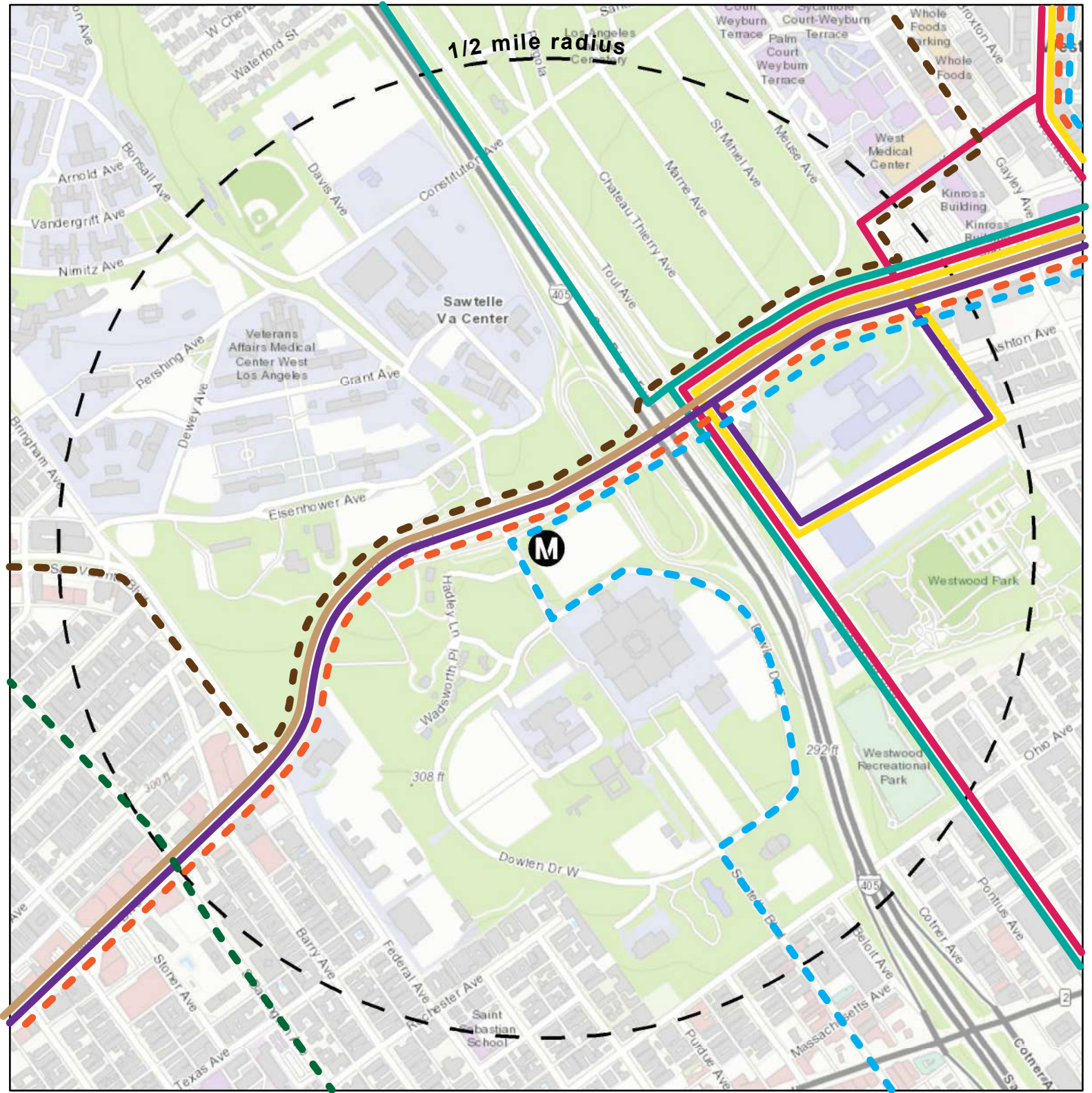


V-46



Westwood / VA Hospital Station Bus Transit Routes

Figure 2.34



Metro

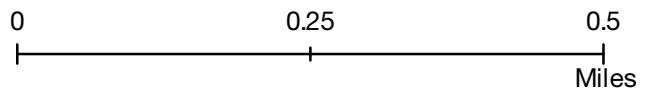
- Route 720
- Route 20
- Route 234, 734
- Route 602
- Route 788

Big Blue Bus

- Route 15
- Route 17
- Route 18
- Route 2

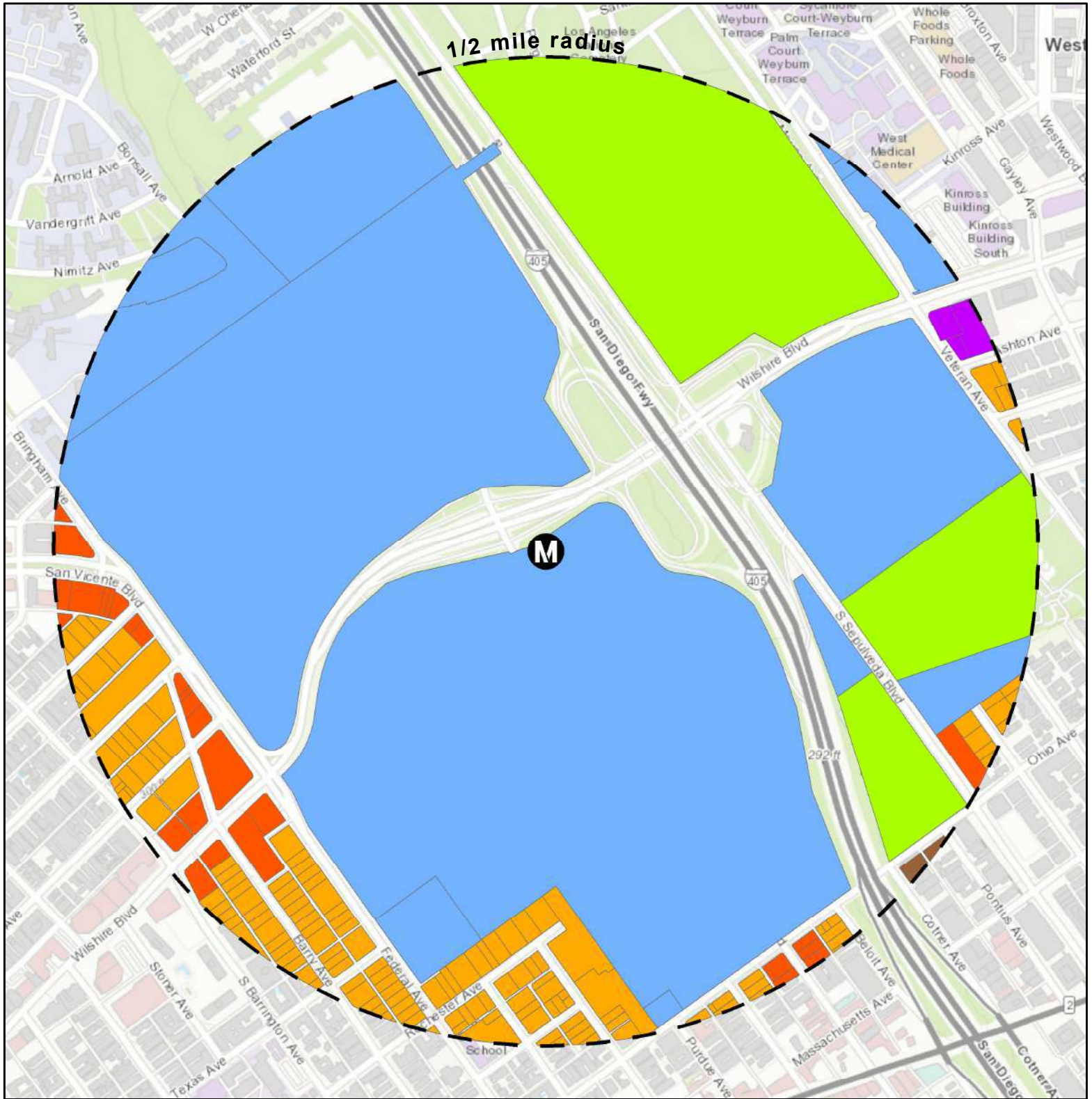


V-47



Westwood / VA Hospital Station Land Use

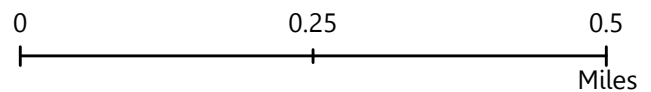
Figure 2.35



- Medium-Density Residential
- Commercial
- Open Space
- Public Facilities
- Regional Commercial
- Limited Manufacturing

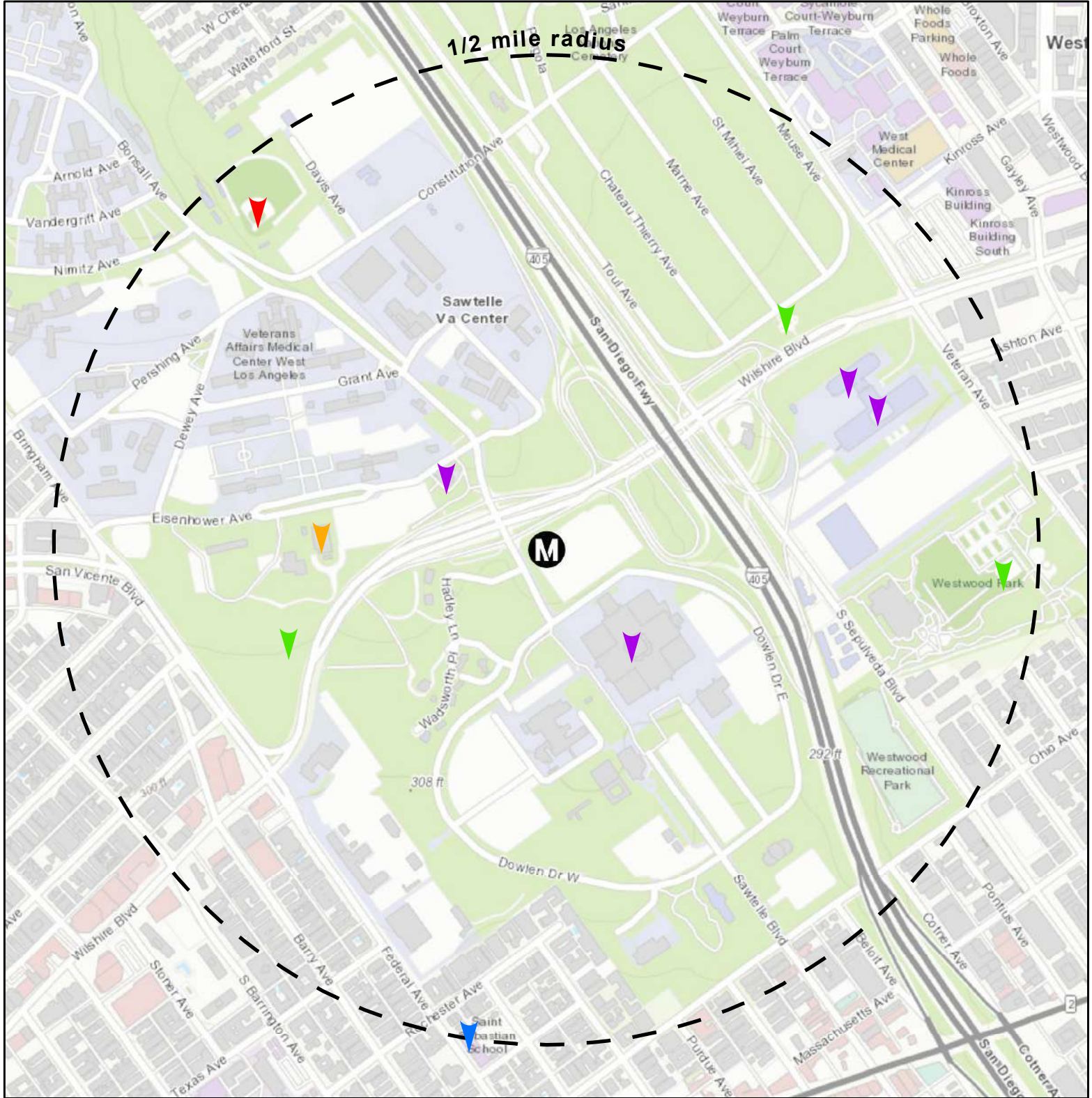


V-48



Westwood / VA Hospital Station Points of Interest

Figure 2.36

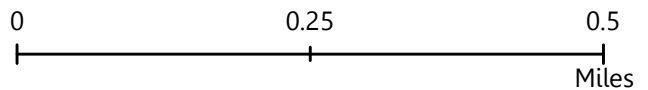


- Art
- Attraction
- Education
- Open Space
- Public
- Shopping

Westwood / VA Hospital Station Half-Mile Radius



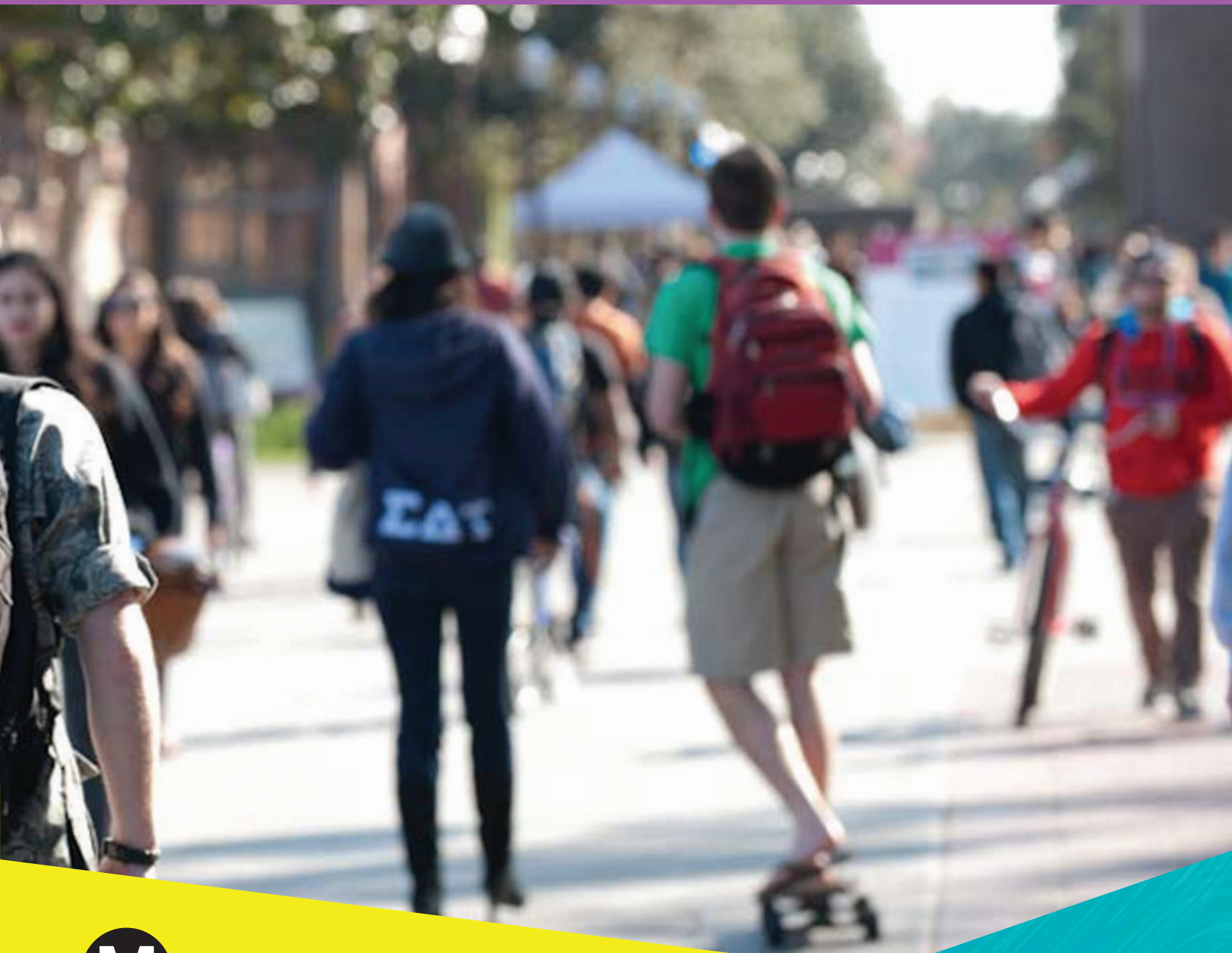
V-49



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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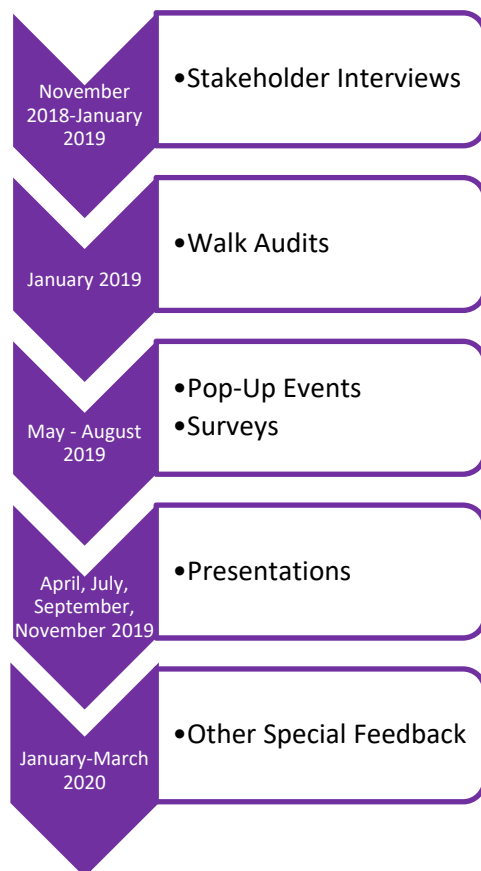
1. Community Engagement Summary

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:

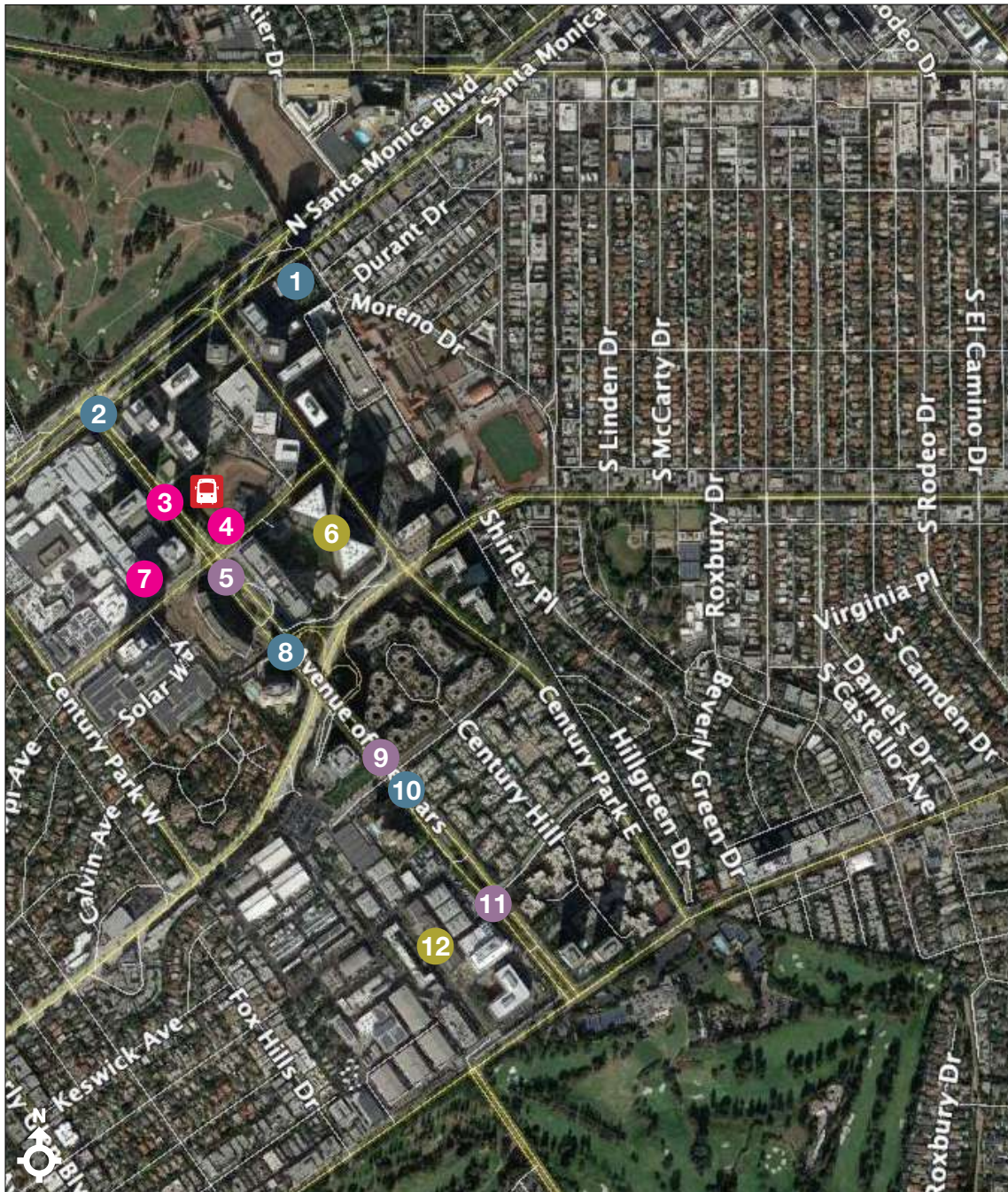
- Linda Paradise Lyles, Executive Director of *Commute 90065 TMO*
- Aaron Gaul, Director, *Urban Trans*
- Very familiar with PLE FLM planning

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.

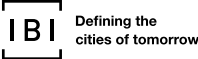
Map below depicts noted areas for First/Last Mile improvements.



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

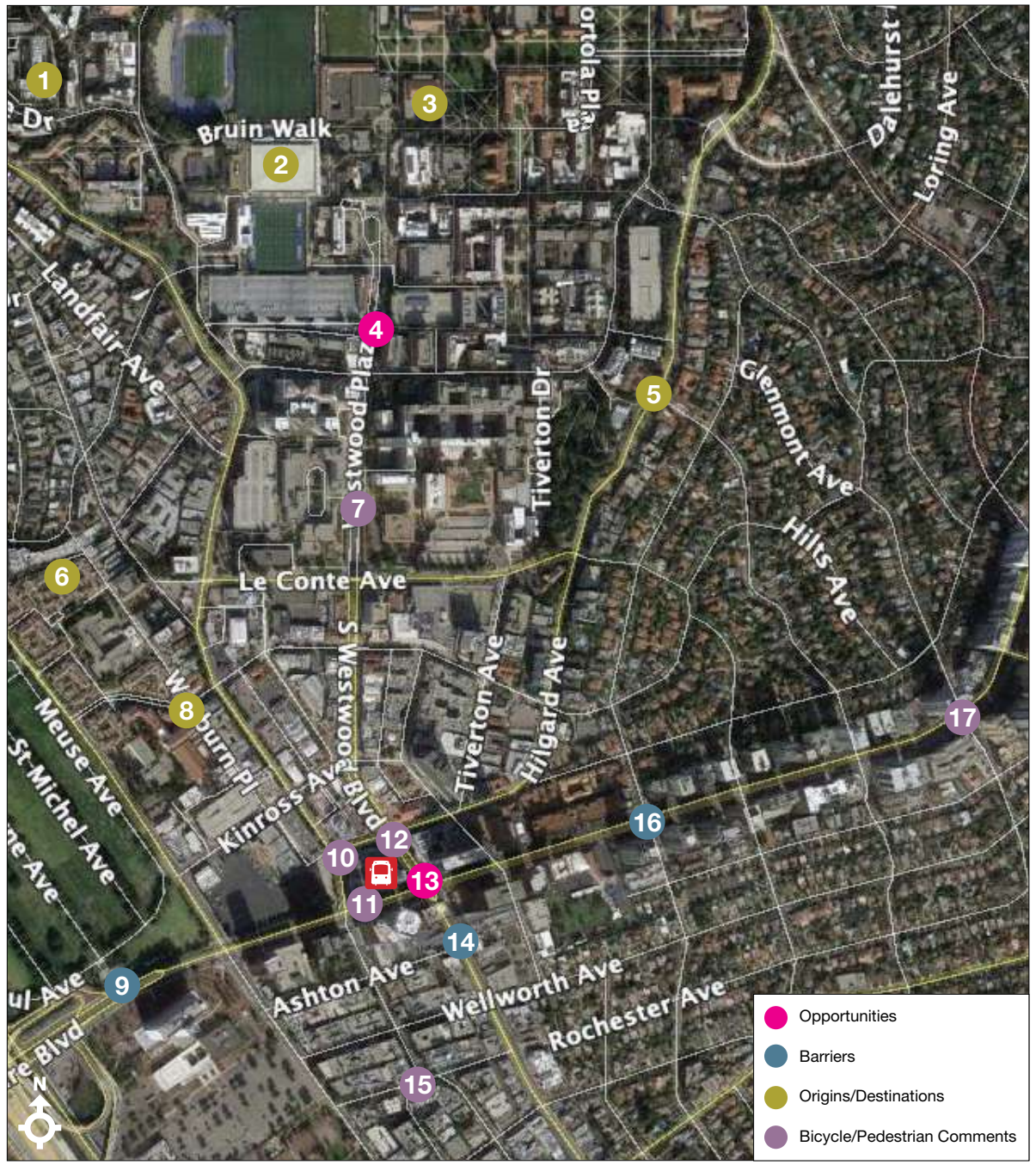
Purple Line Stats:

- 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:

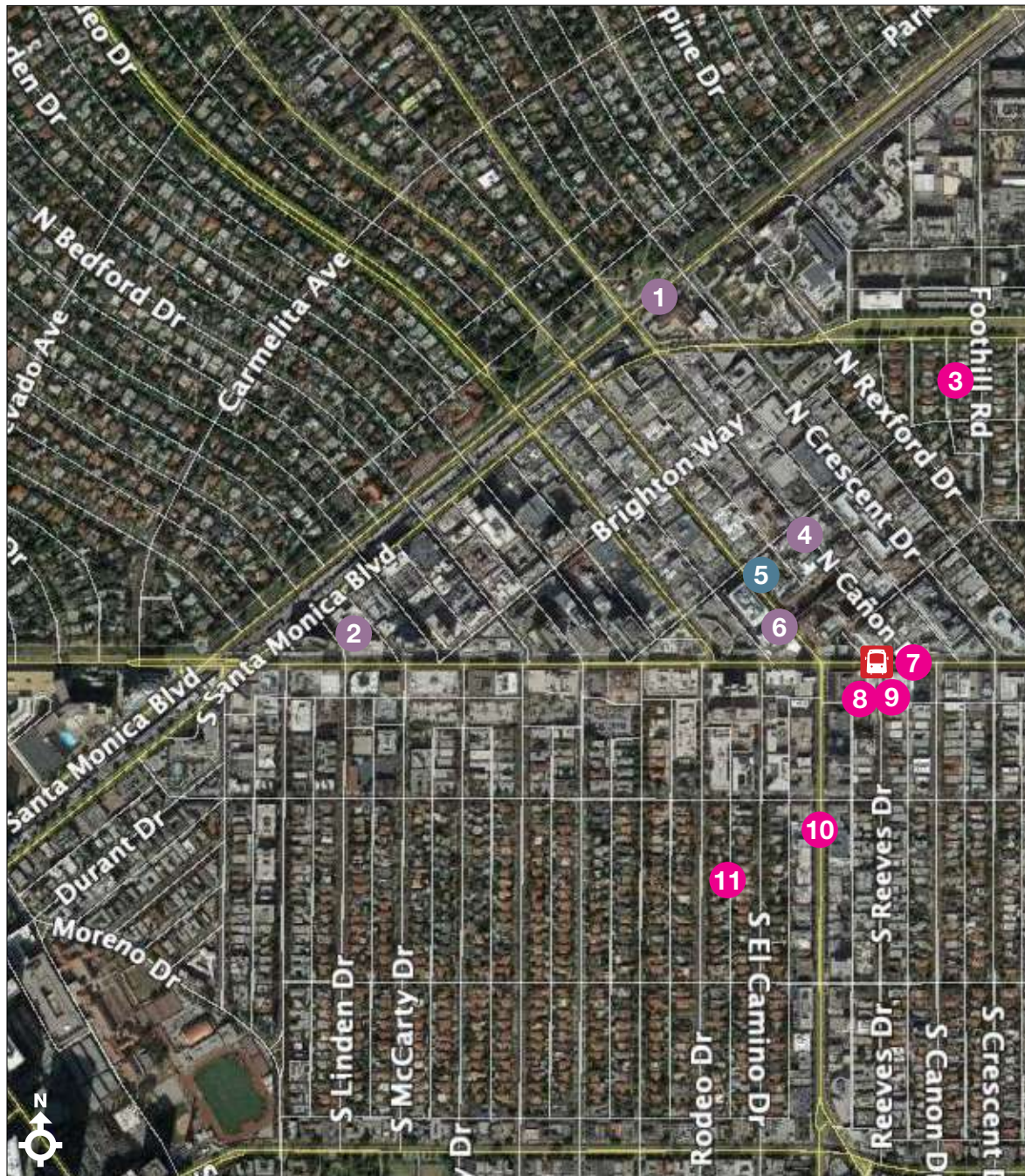
- Director of *2 Rodeo*, CPM Certified
- Very familiar with FLM planning efforts

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

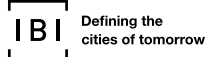
Map below depicts noted areas for First/Last Mile improvements.



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:

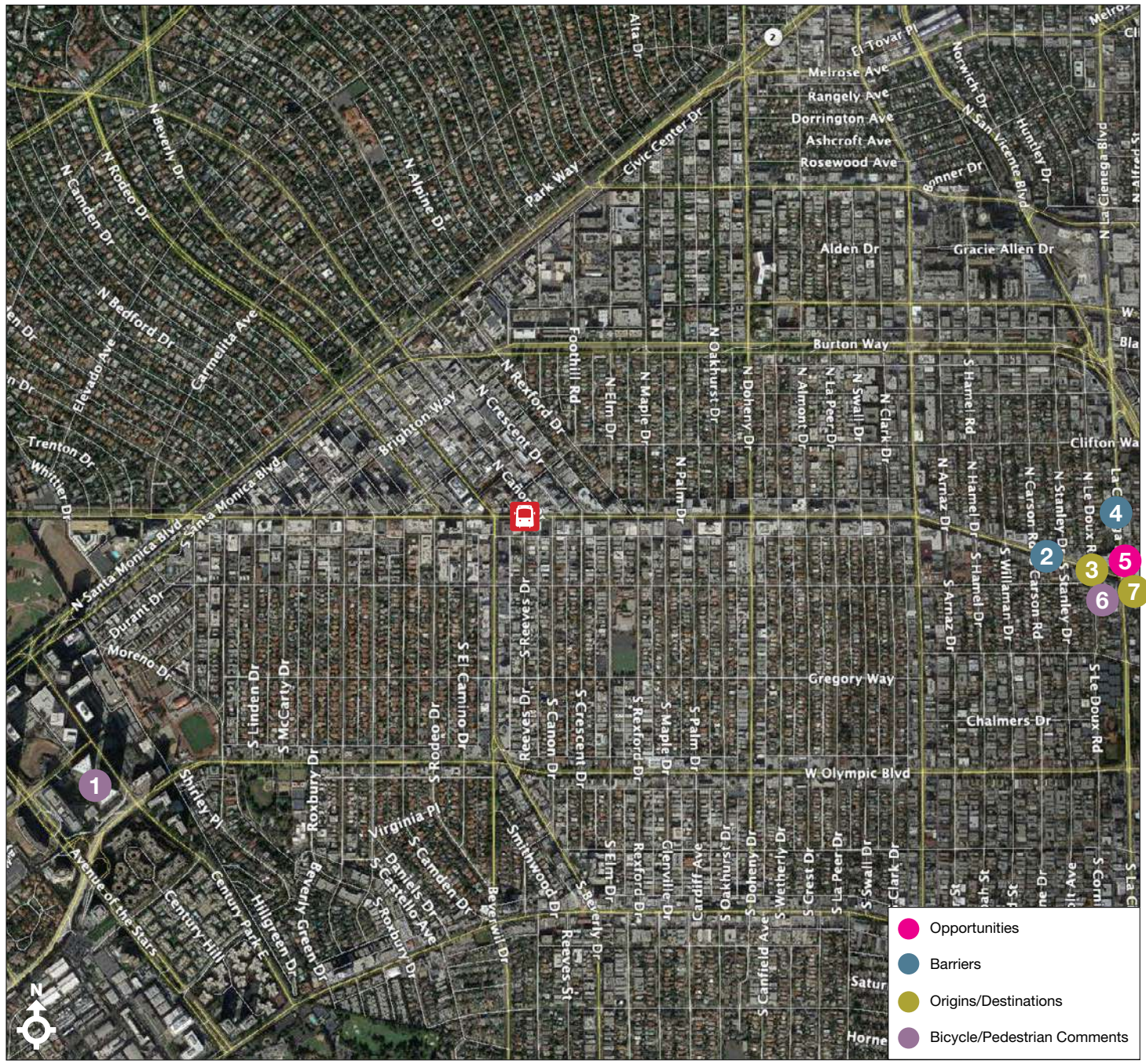
- Associate Director, Government and Industry Relations, Cedars Sinai Medical Center
- Somewhat familiar with FLM planning efforts
- Concerned with hospital access and traffic conditions

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:

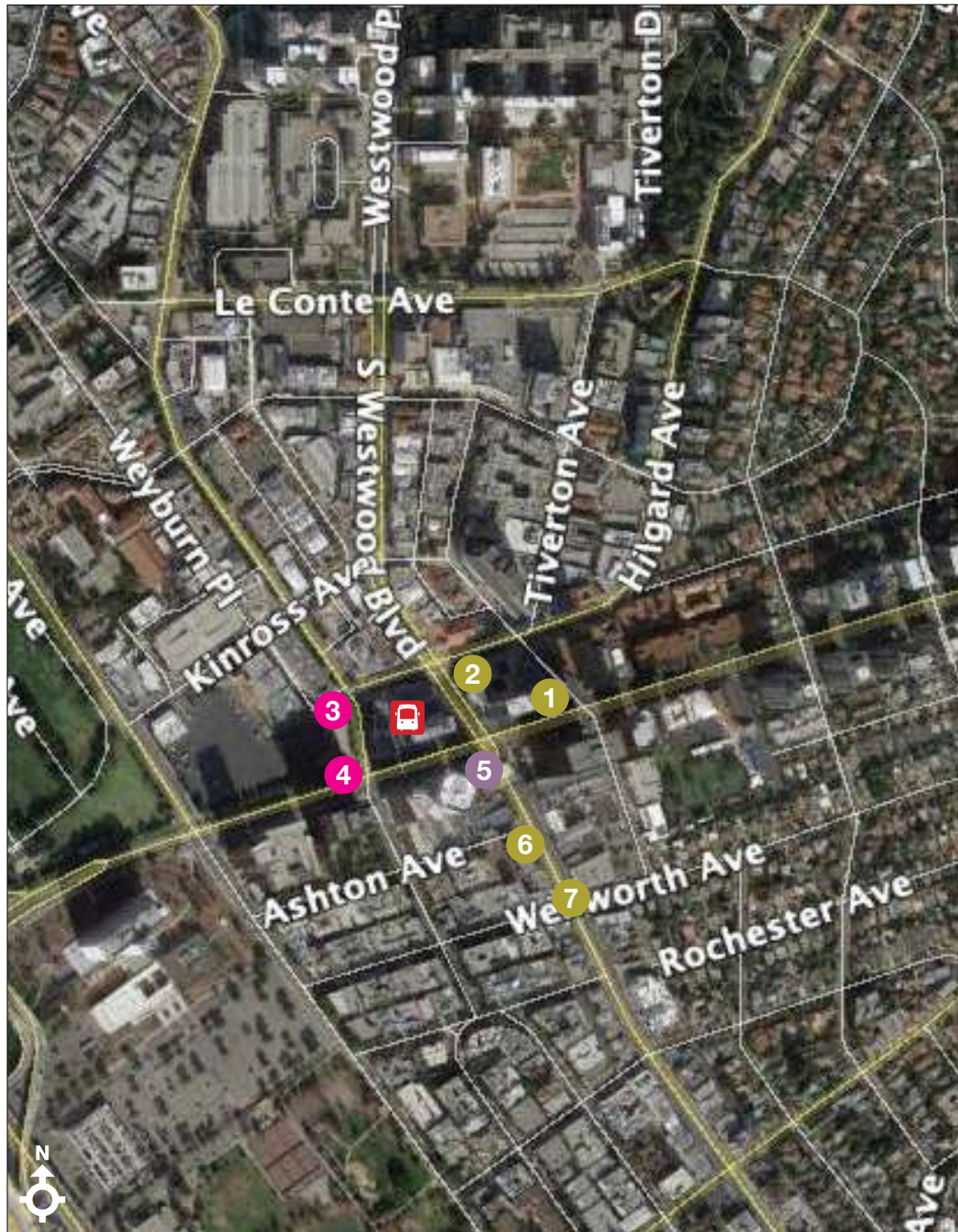
- Participated in original PLE Advisory Committee
- Local Real Estate Developer

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

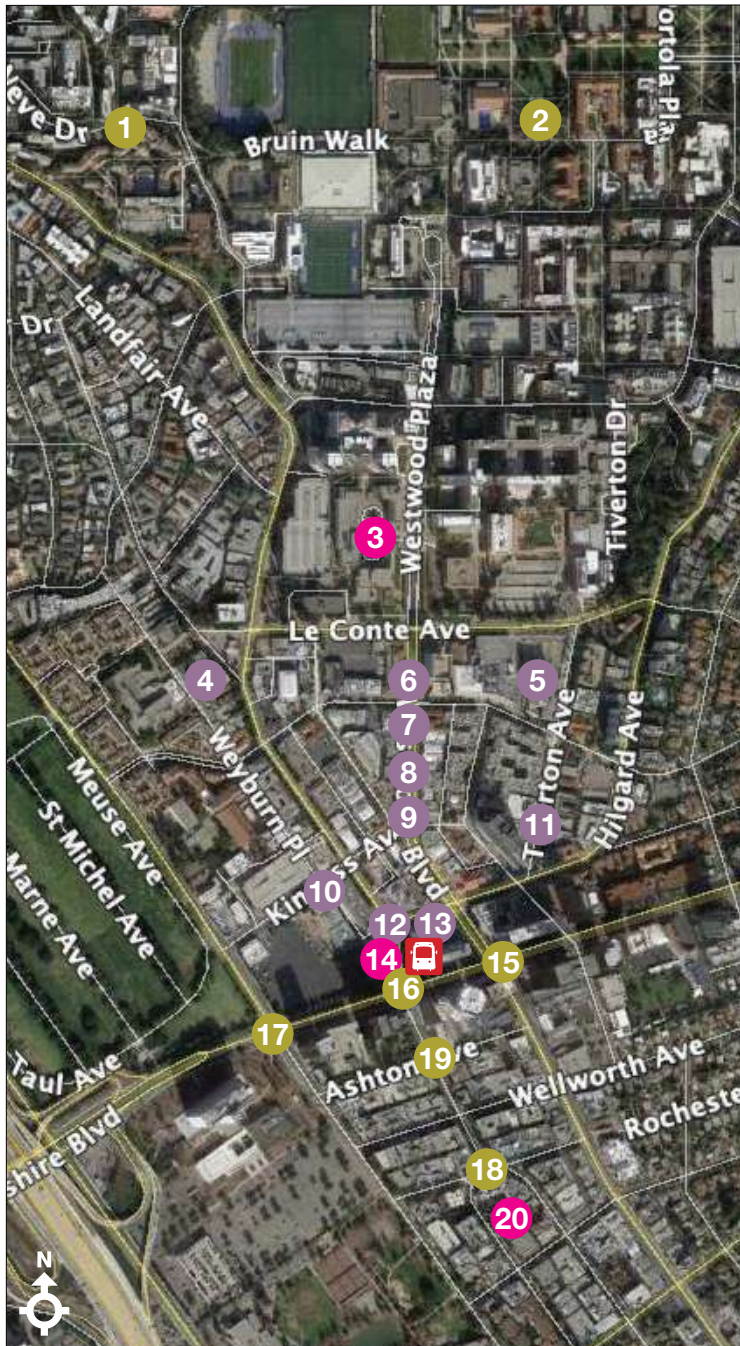
Purple Line Stats:

- 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

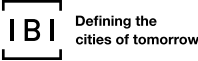
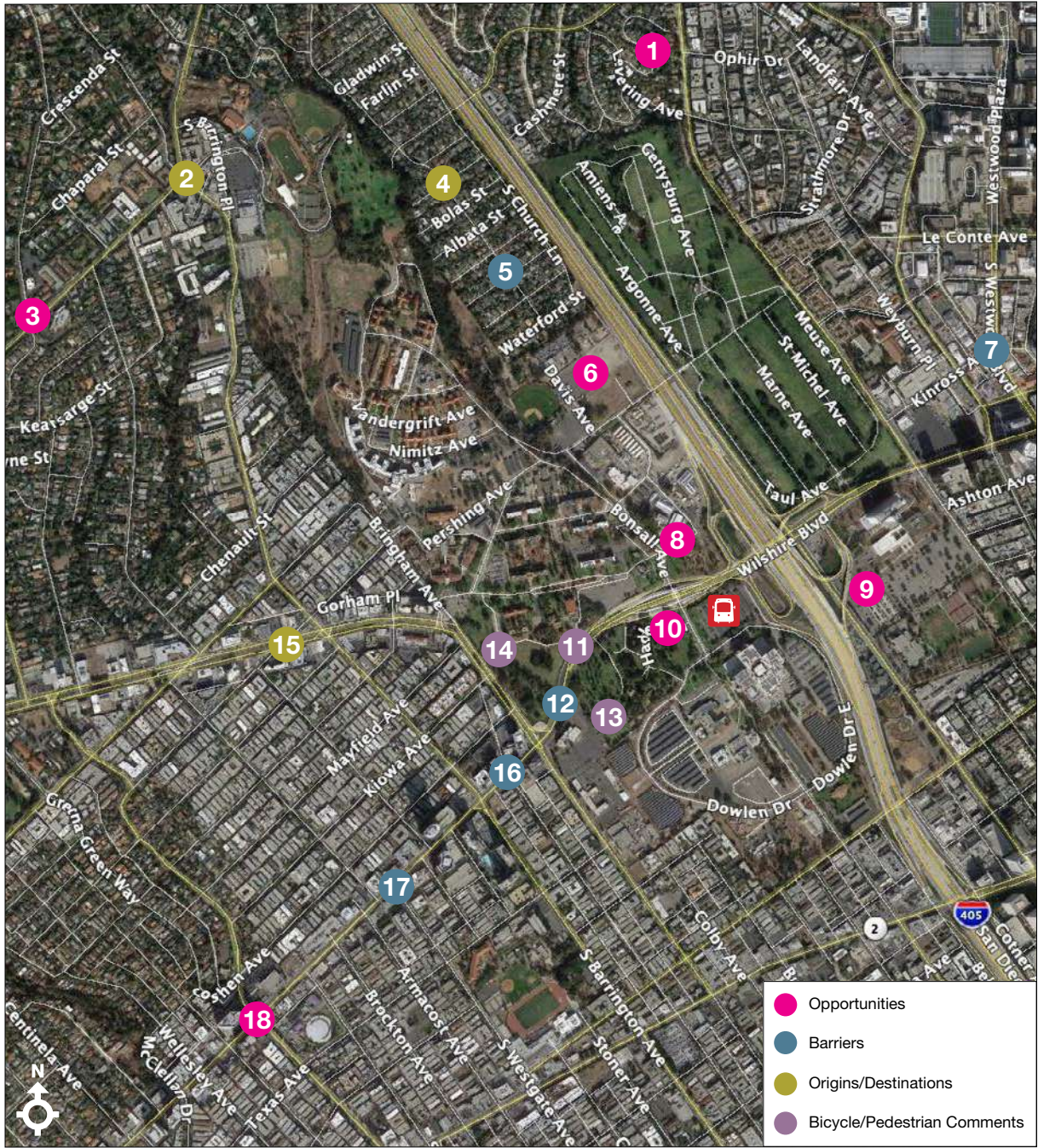
<p>What key destinations or uses would you (and people in your organization/group) access using this station?</p>	<ul style="list-style-type: none"> • Century City • DTLA
<p>What are the key destinations people are traveling to in this station area?</p>	<ul style="list-style-type: none"> • Same as above
<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

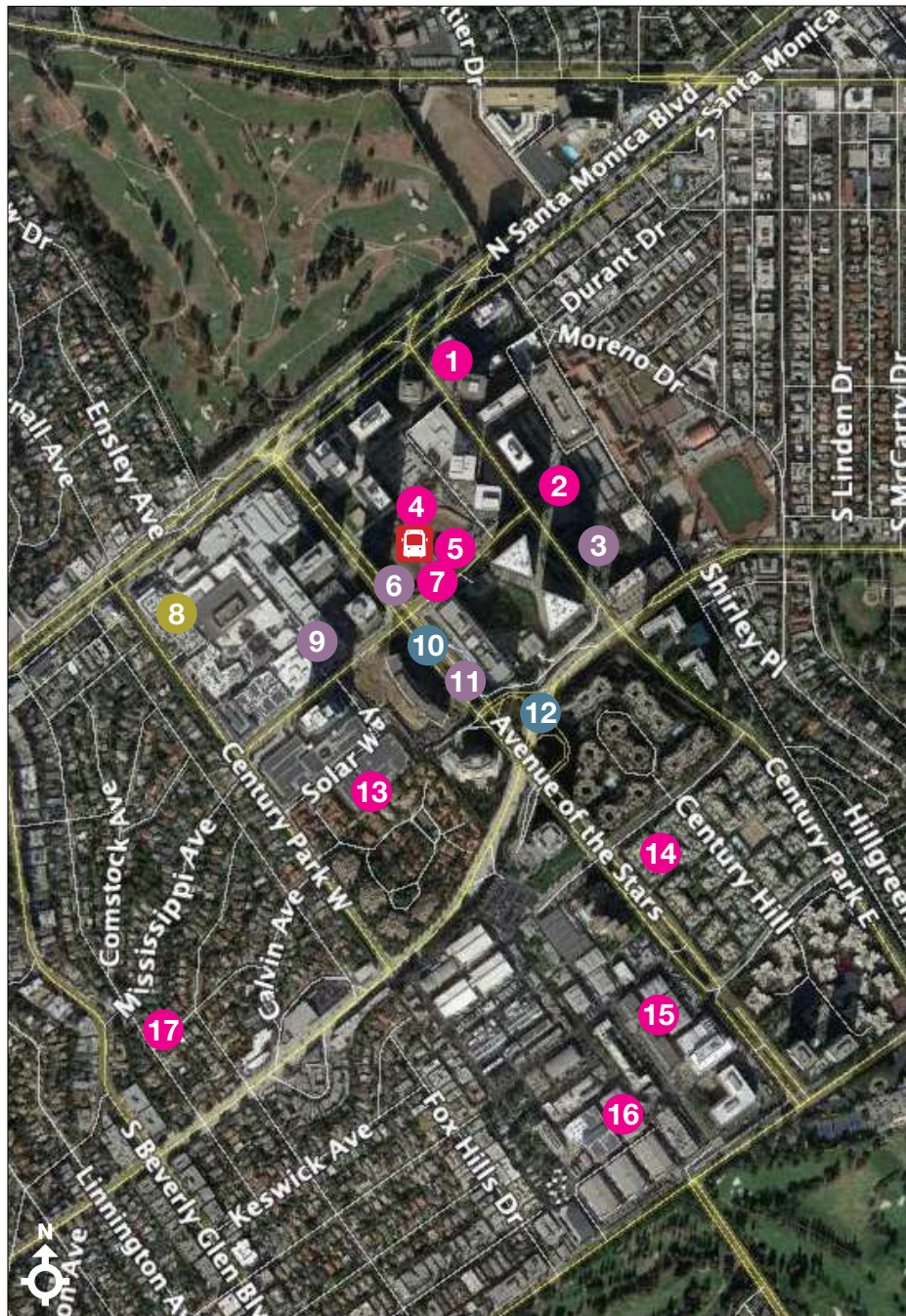
Purple Line Stats:

- 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*

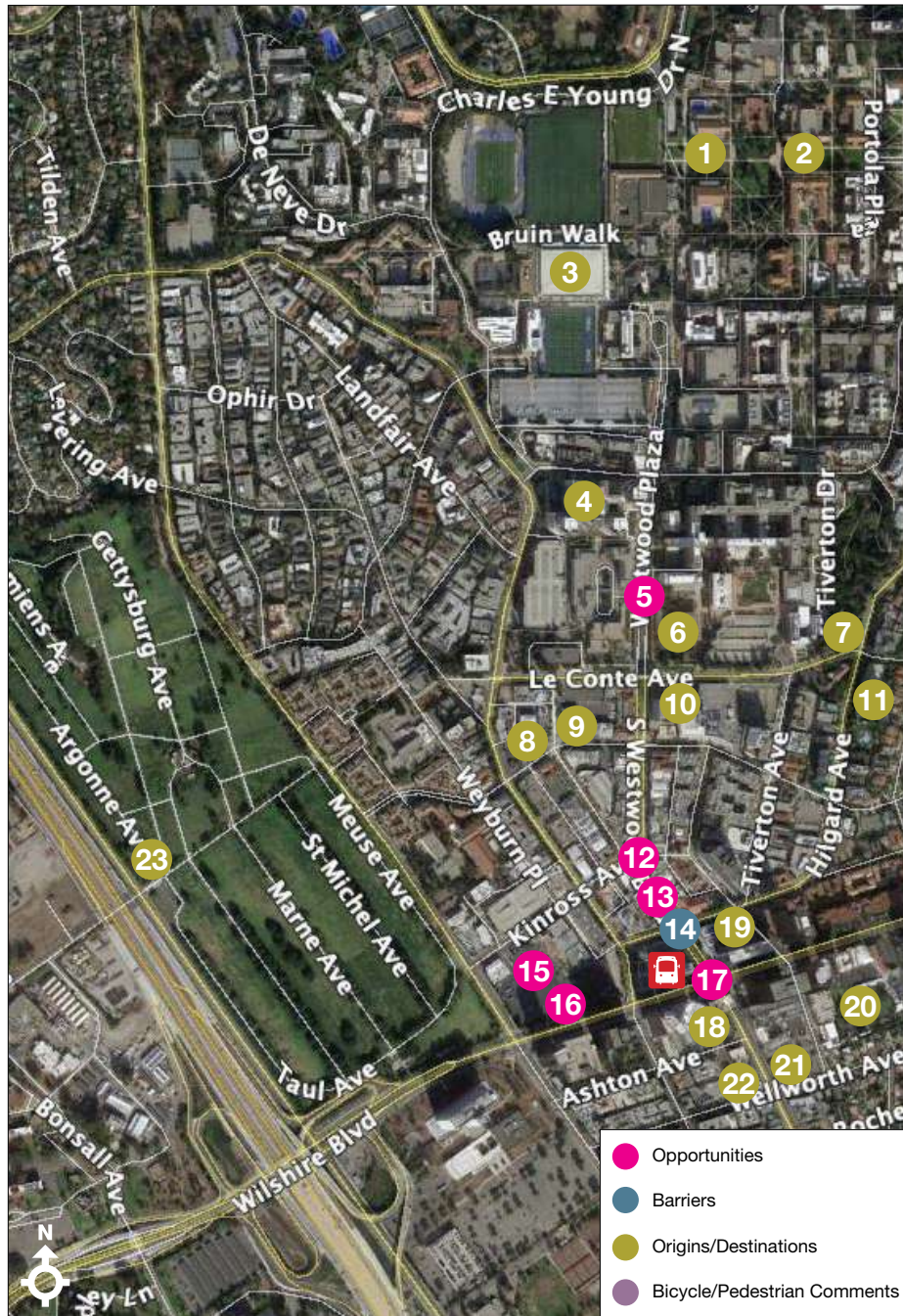
Purple Line Stats:

- 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 Marylin 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*

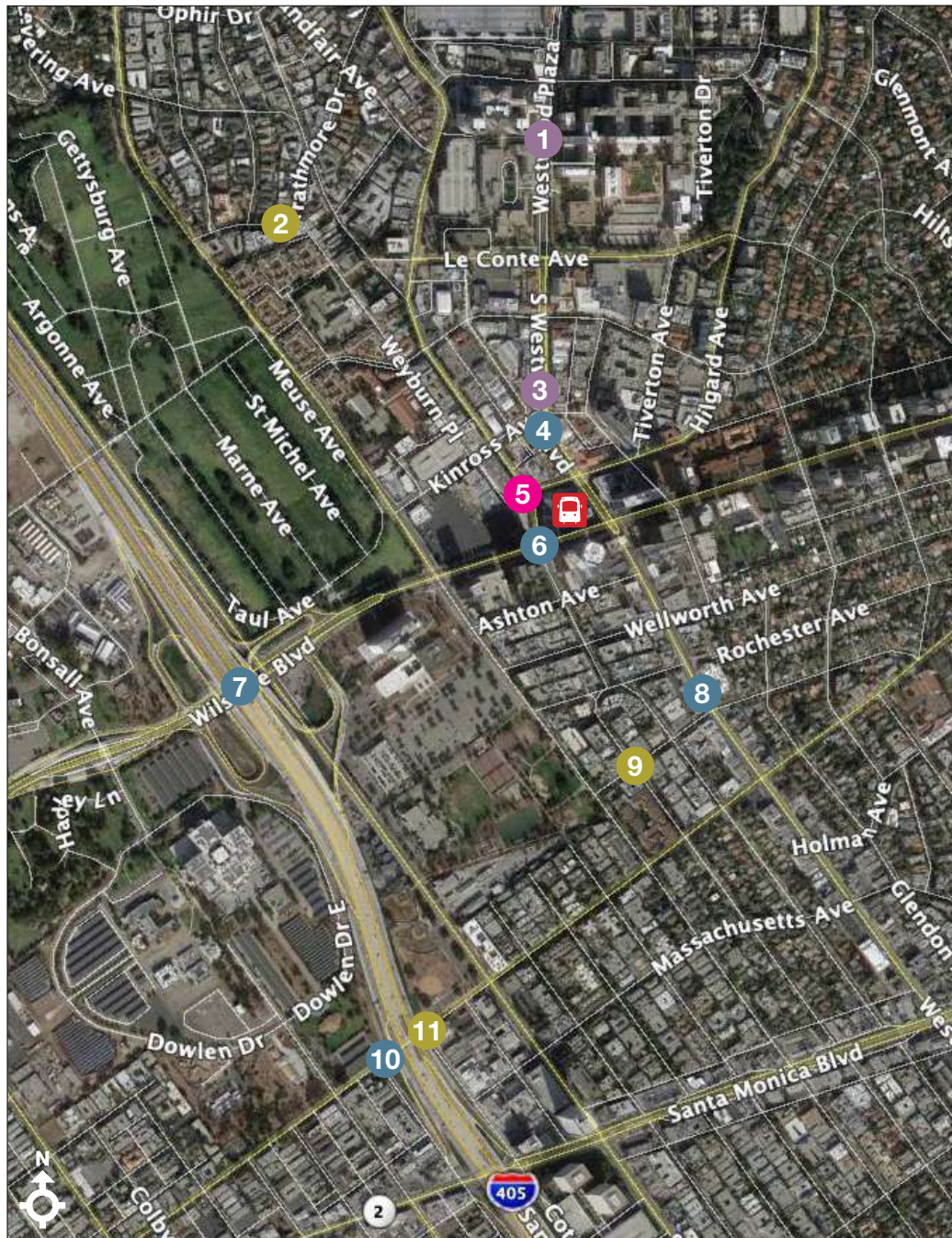
Purple Line Stats:

- 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

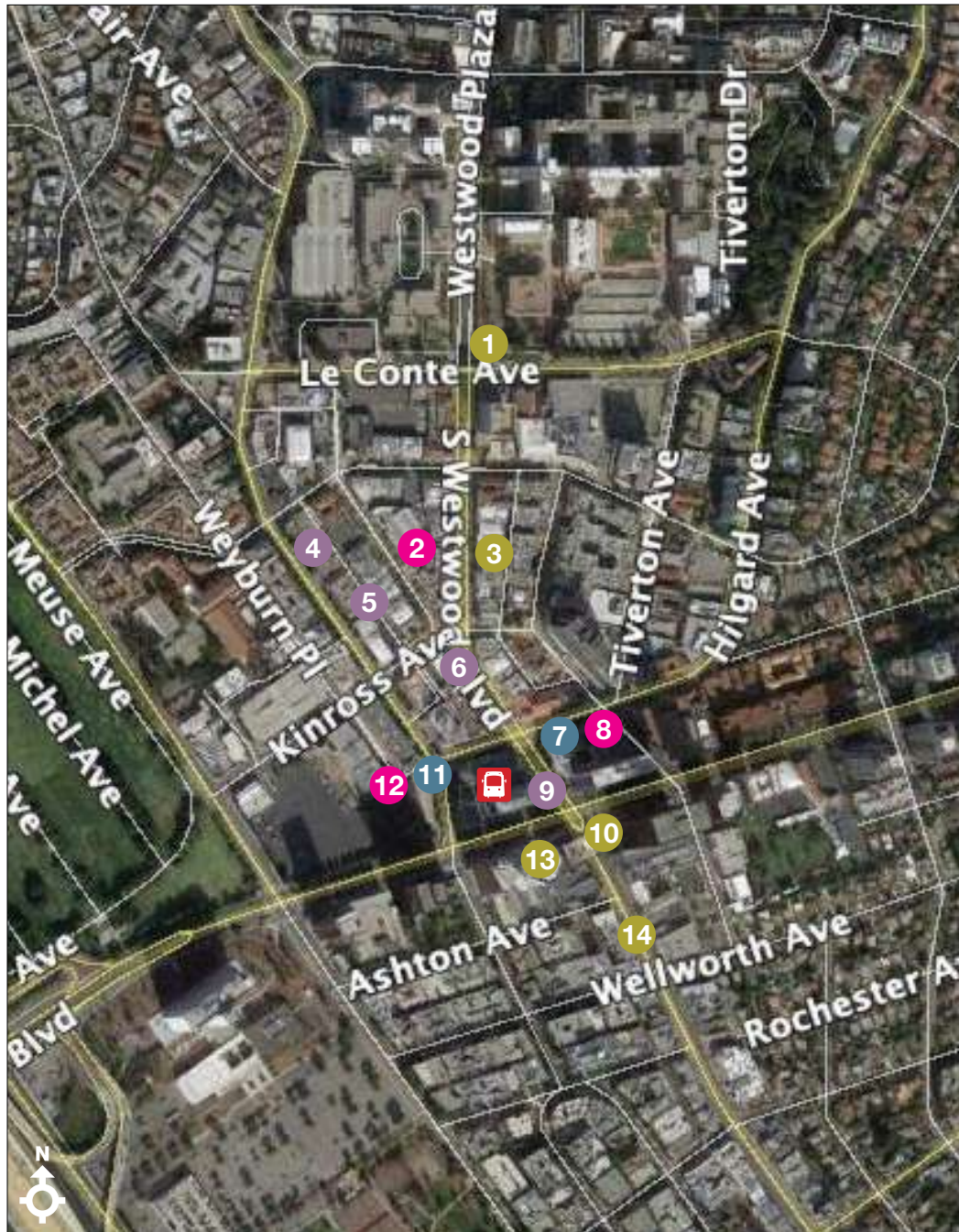
Purple Line Stats:

- 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:

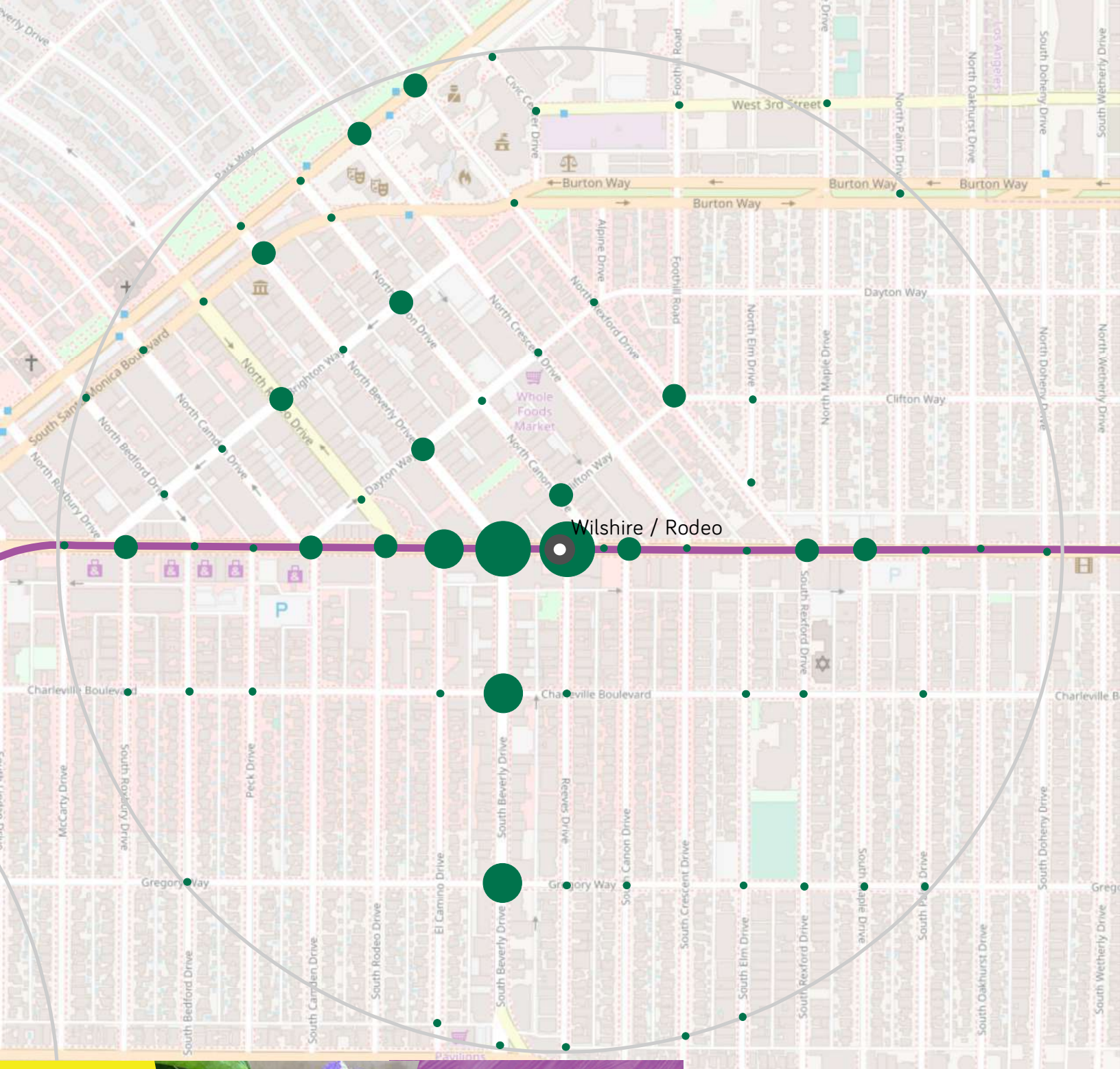
Wilshire/Rodeo Station	Beverly Hills Farmers' Market, Public Works Day: June 2, 2019
Century City/Constellation Station	Century City Farmers' Market: June 13, 2019
Westwood/UCLA Station	Westwood Farmers' Market: June 6, 2019 UCLA Semel Healthy Campus Initiative: May 23, 2019
Westwood/VA Hospital	West 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.

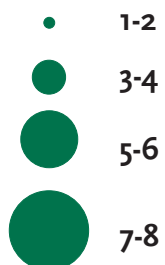




WILSHIRE/RODEO POP UP SUMMARY Pop Up Date: 06.02.19

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

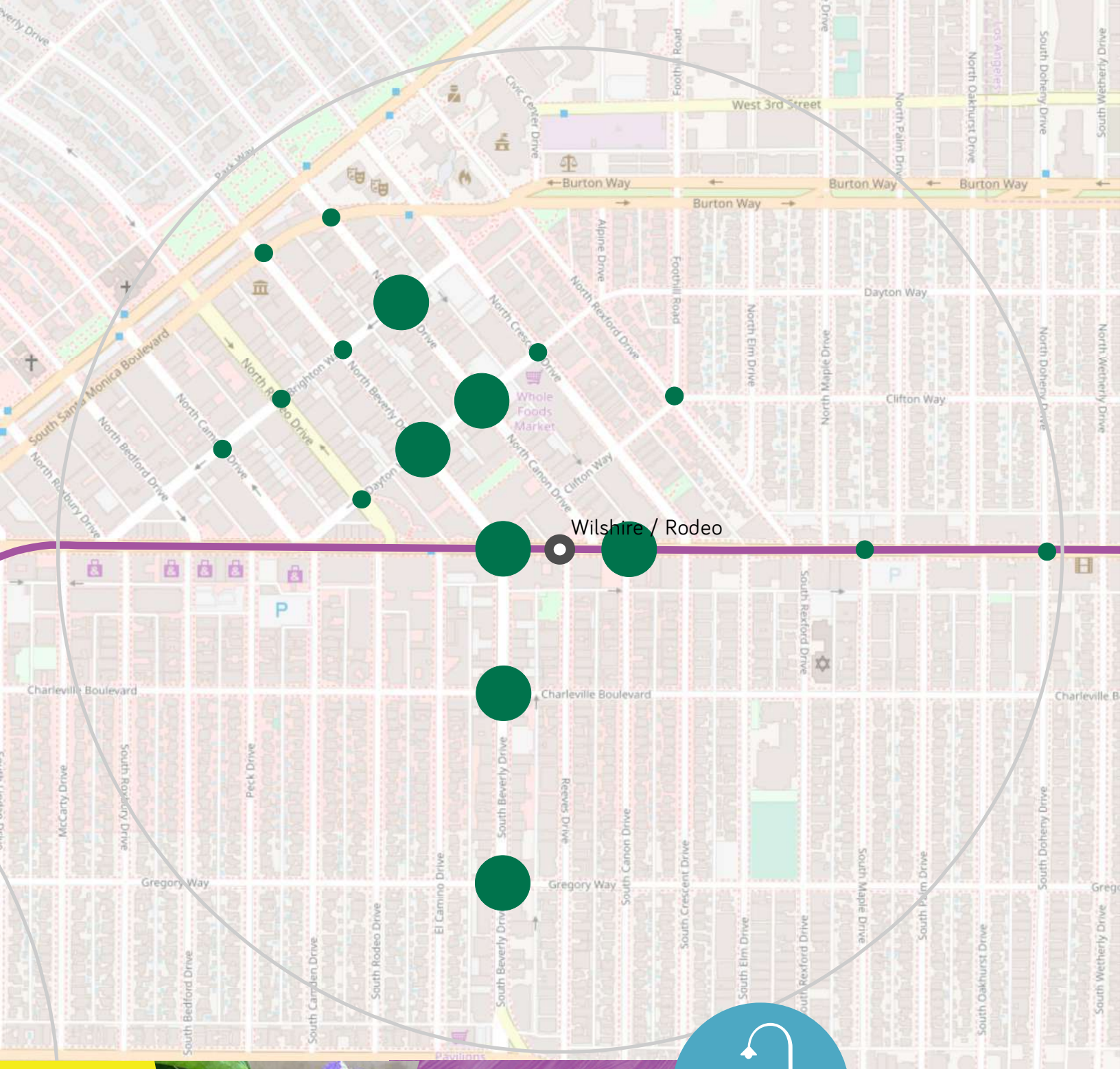
Street Furniture (24)

Crosswalks (22)

Bike Friendly Intersections (19)

(Top 3)

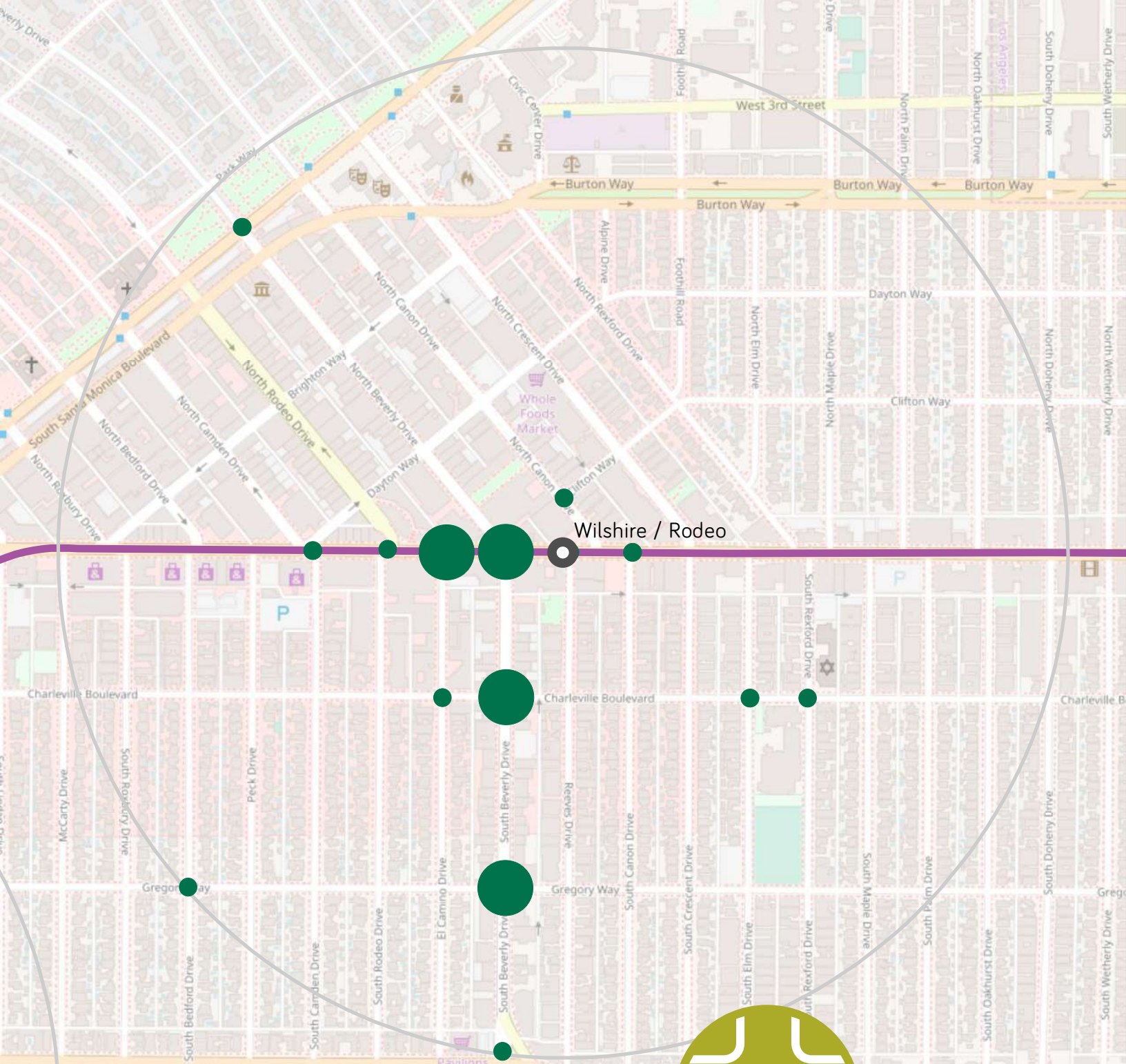
20 Total Corridor Improvements



WILSHIRE/RODEO POP UP SUMMARY *Pop Up Date: 06.02.19*

Proposed Street Furniture Spot Improvements

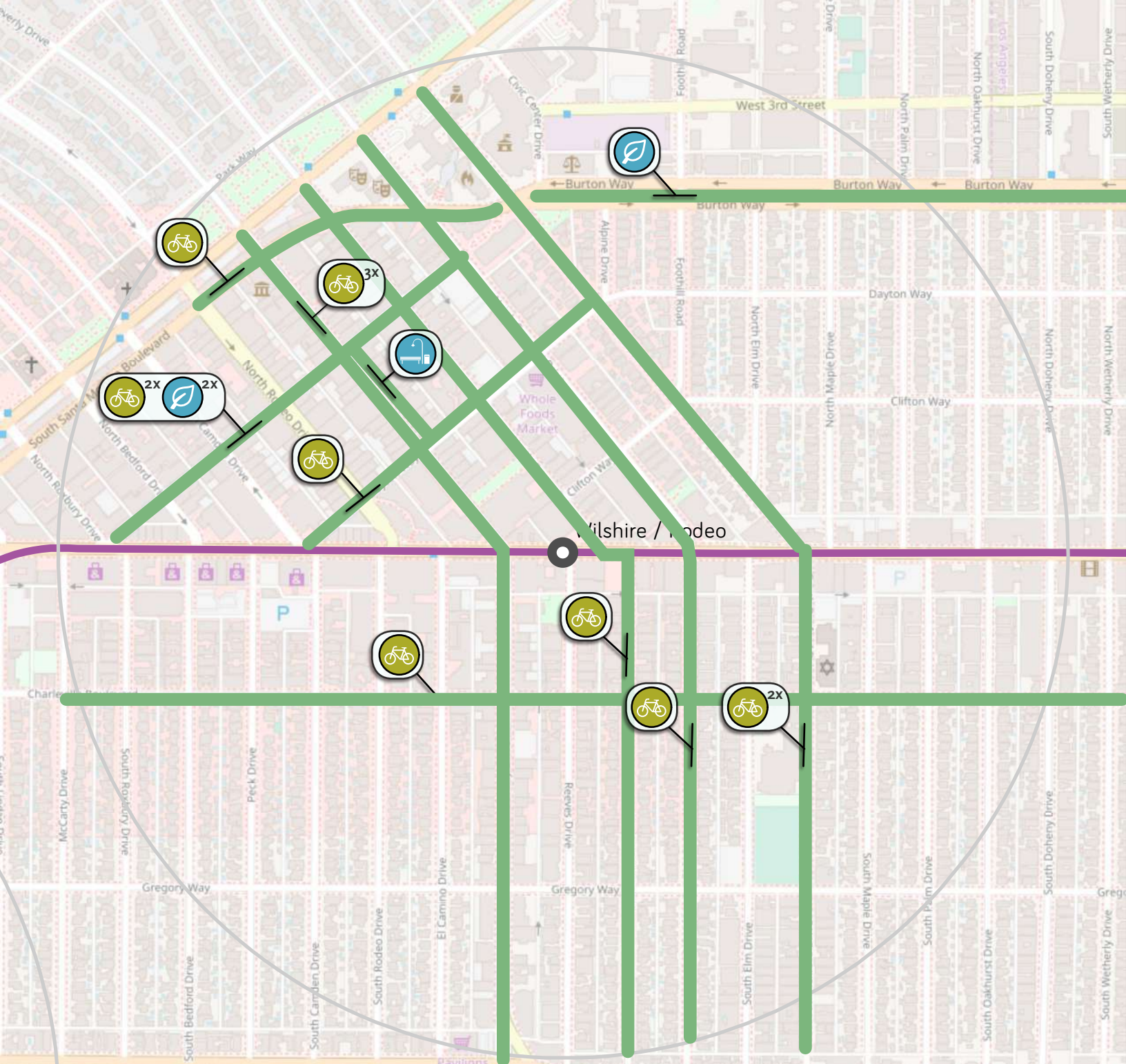
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WILSHIRE/RODEO POP UP SUMMARY *Pop Up Date: 06.02.19*

Proposed Bicycle Friendly Intersection Spot Improvements

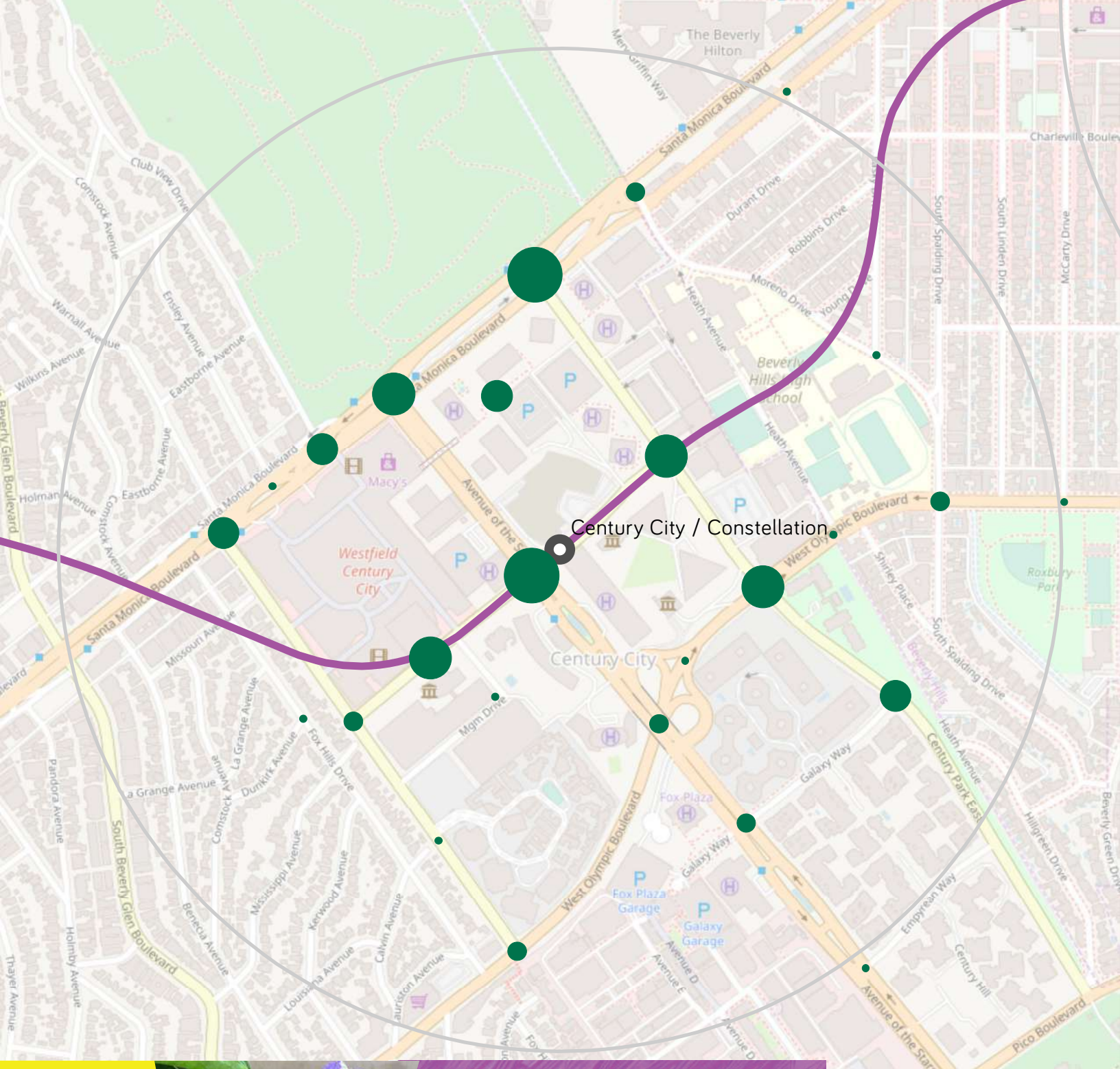
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WILSHIRE/RODEO POP UP SUMMARY *Pop Up Date: 06.02.19* **Beverly Hills Farmers' Market**

Proposed Corridor Improvements

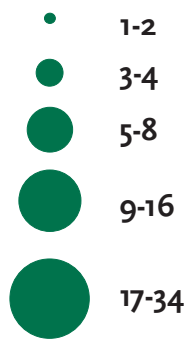
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



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

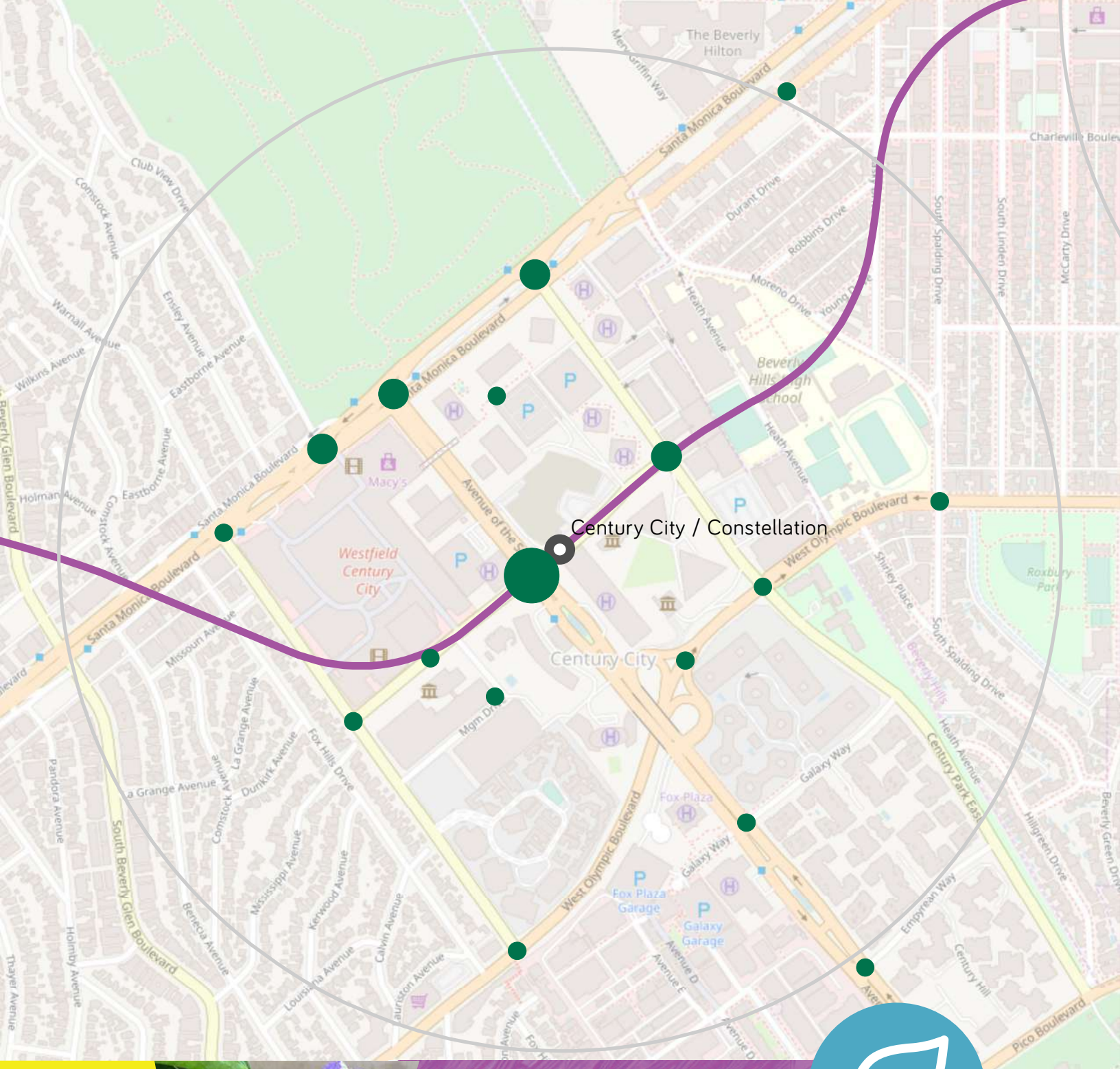
Landscaping & Shade (37)

Bike Facilities (21)

Bike Friendly Intersections (20)

(Top 3)

25 Total Corridor Improvements







Century City / Constellation

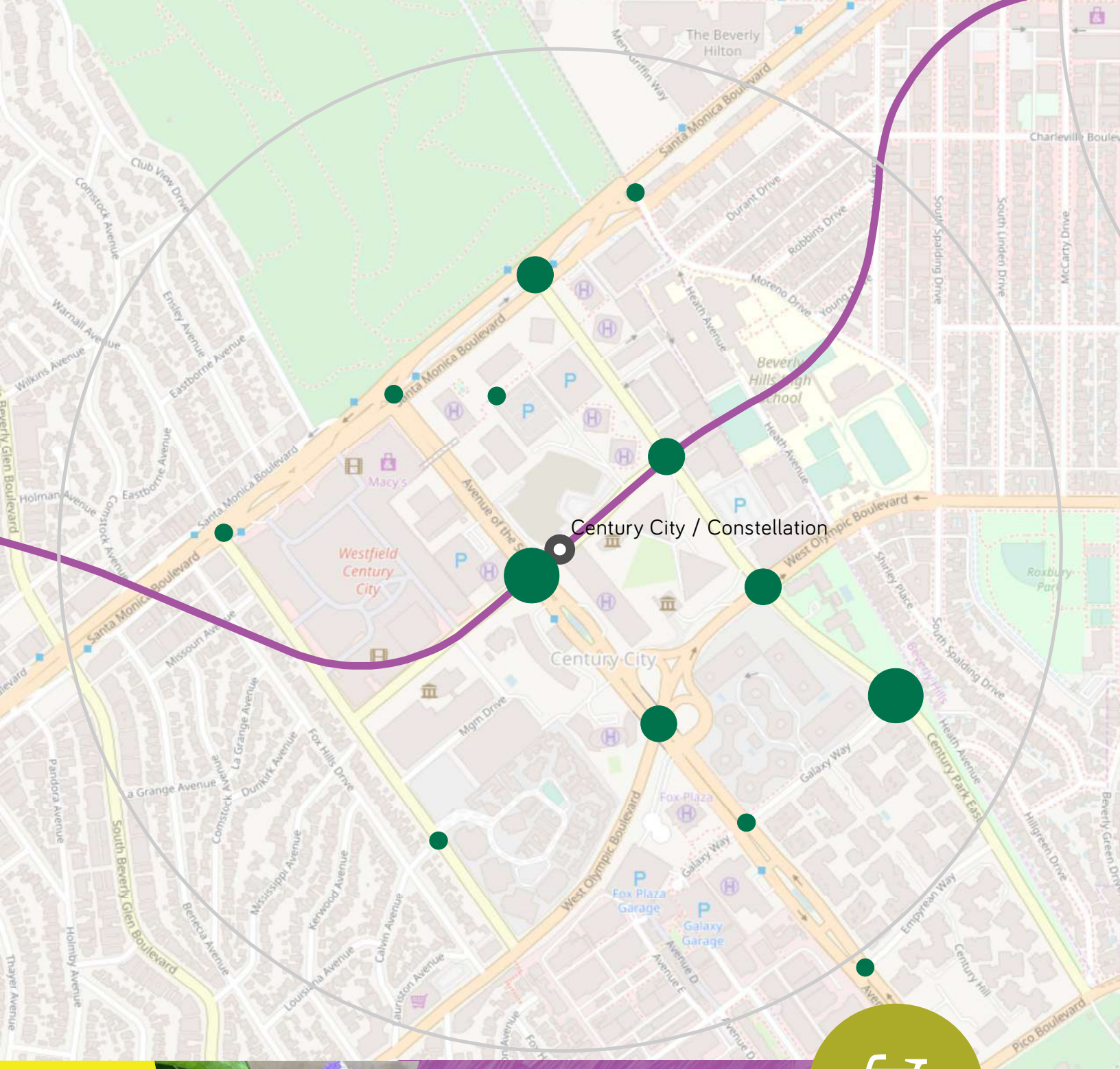
Century City

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

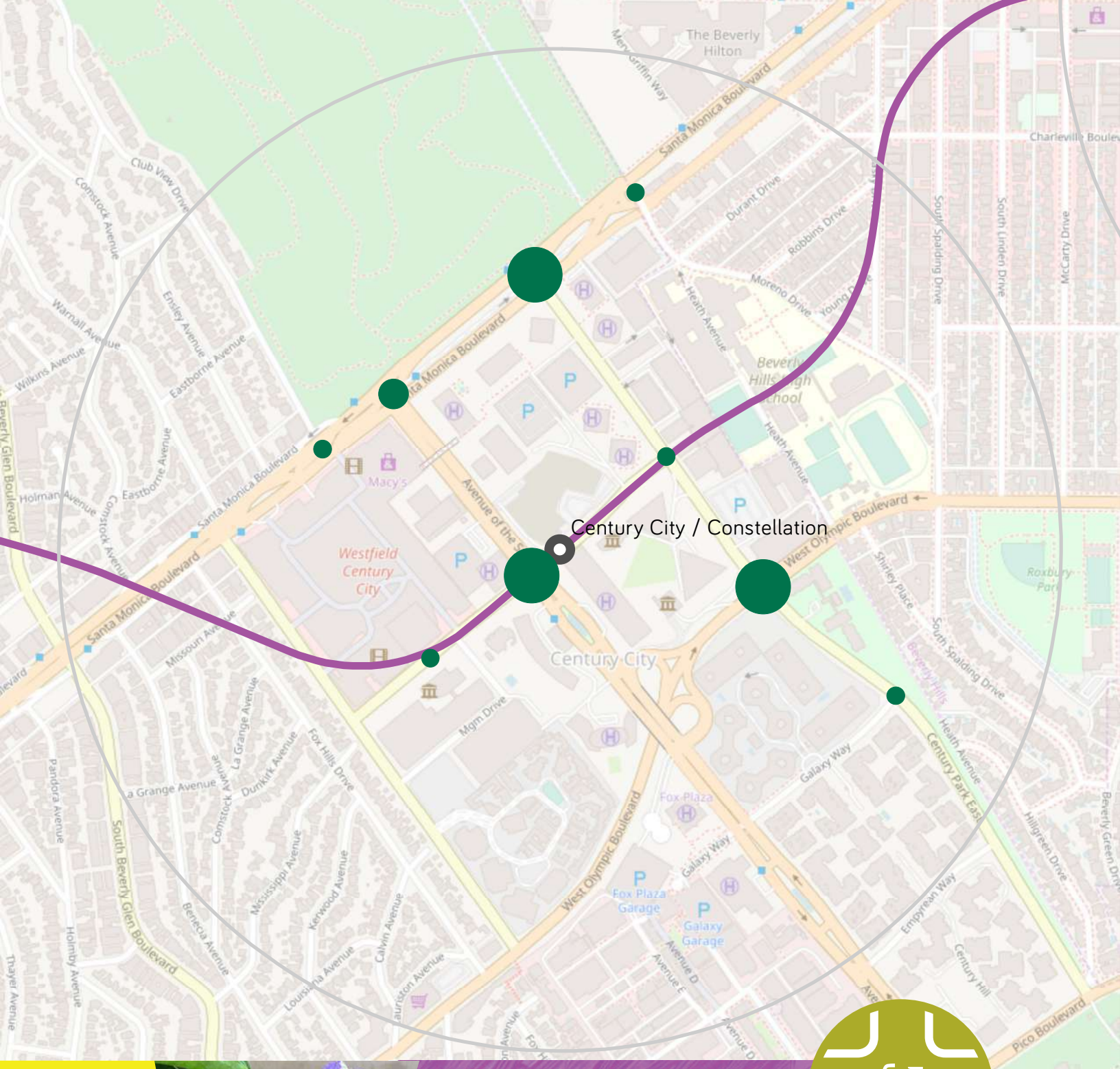


CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19



Proposed Bike Facility Spot Improvements





-  1
-  2
-  3

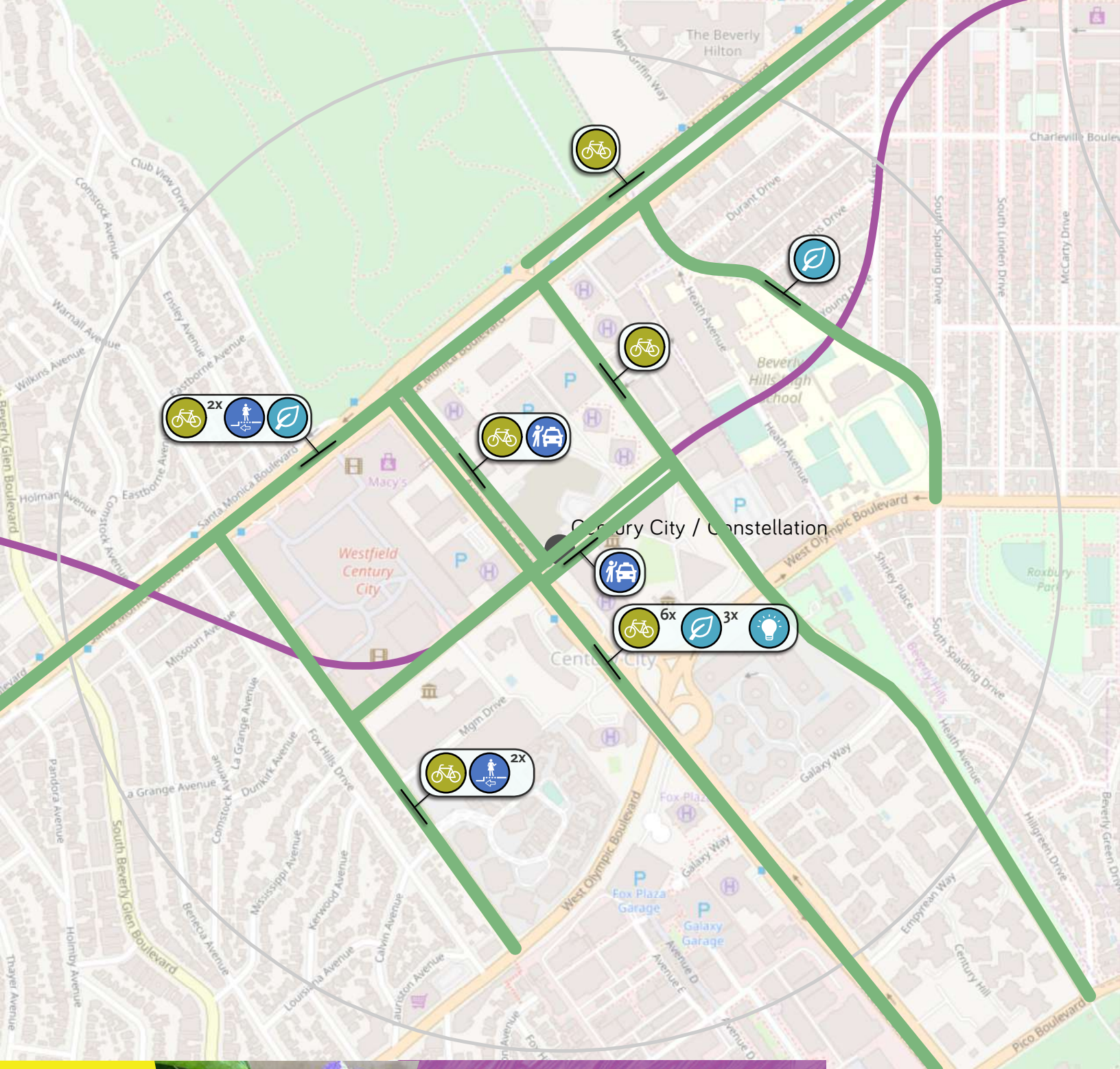


CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19



Proposed Bicycle Friendly Intersection Spot Improvements

-  1
-  2
-  3
-  4-5

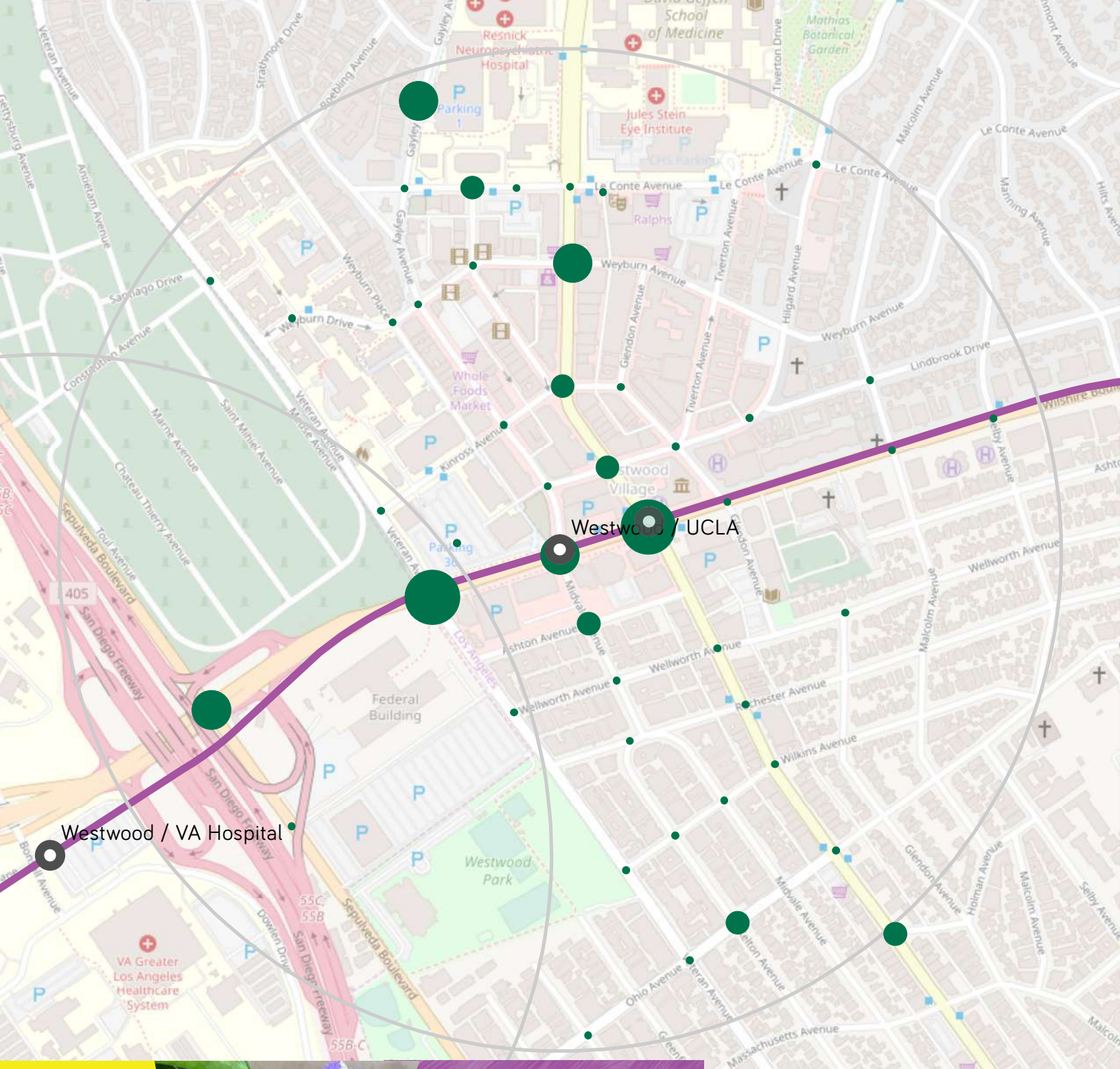


CENTURY CITY/CONSTELLATION POP UP SUMMARY Pop Up Date: 06.13.19

Century City Farmers' Market

Proposed Corridor Improvements

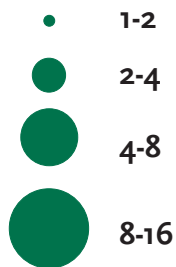
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



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)

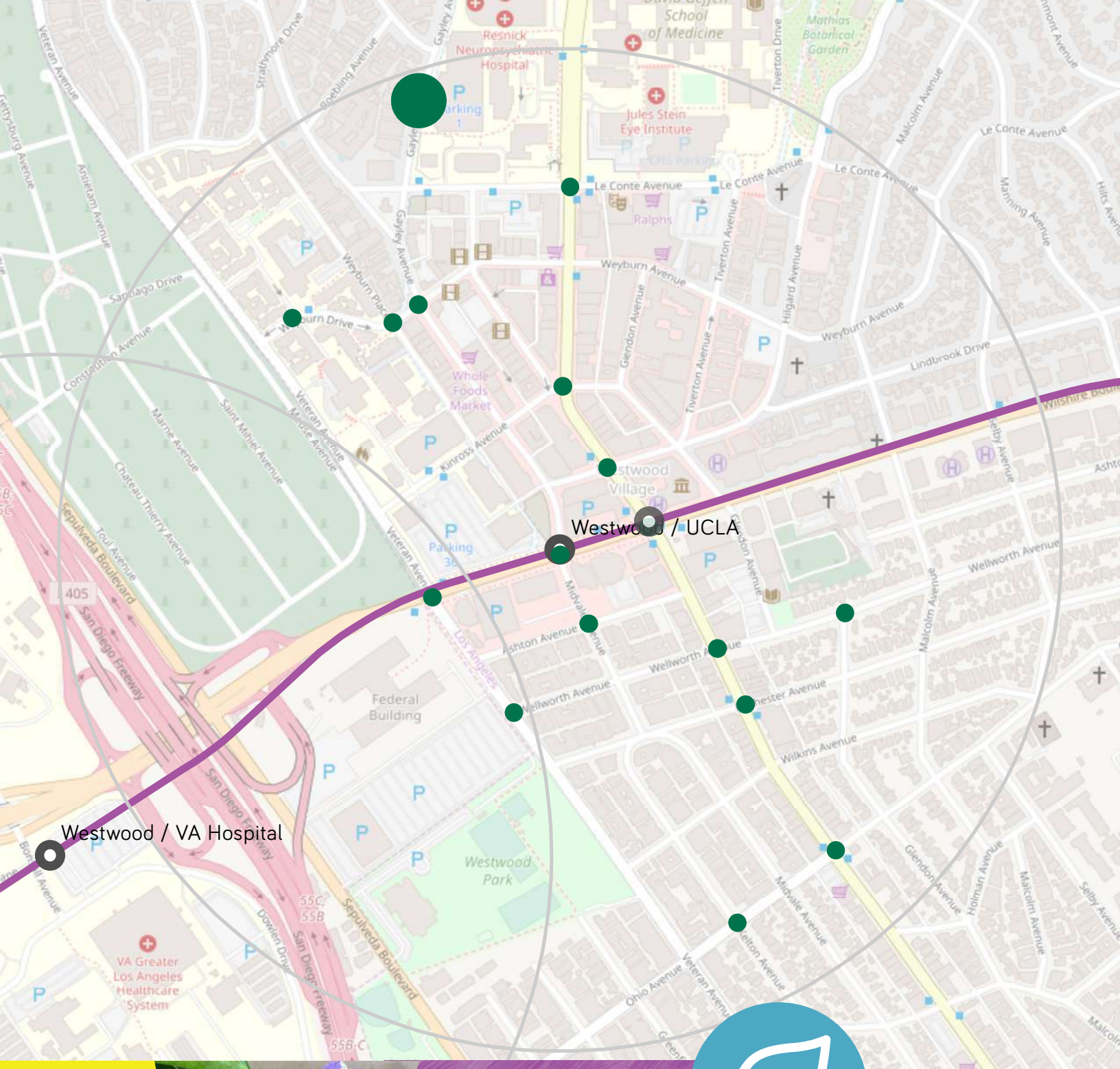
131 Total Proposed Improvements

116 Total Spot Improvements

- Landscape (18)
- Crosswalks (16)
- Ped & Bike Lighting (14)

(Top 3)

15 Total Corridor Improvements

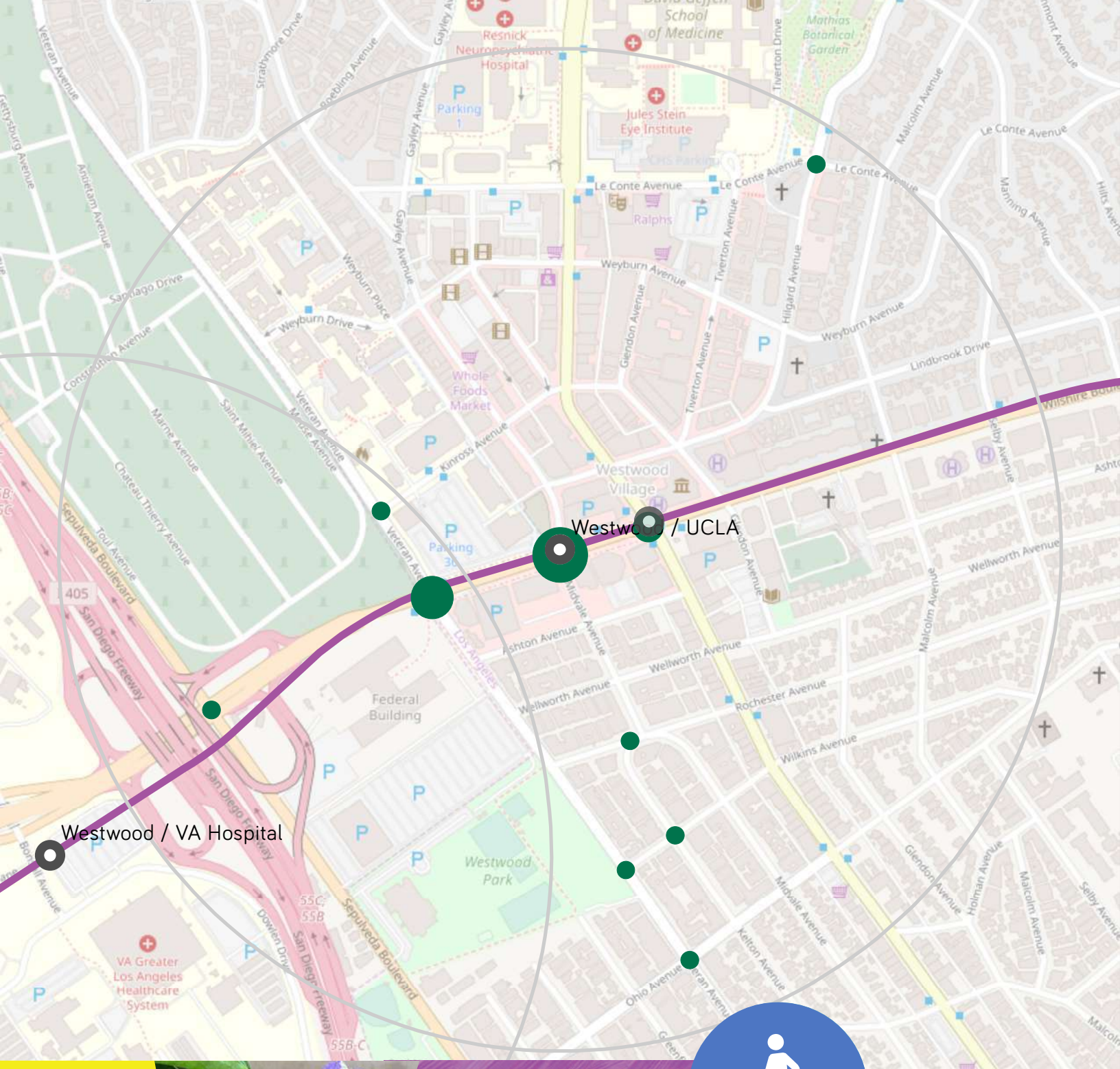


WESTWOOD / UCLA POP UP SUMMARY *Pop Up Date: 05.23.19*







Proposed Landscaping & Shade Spot Improvements

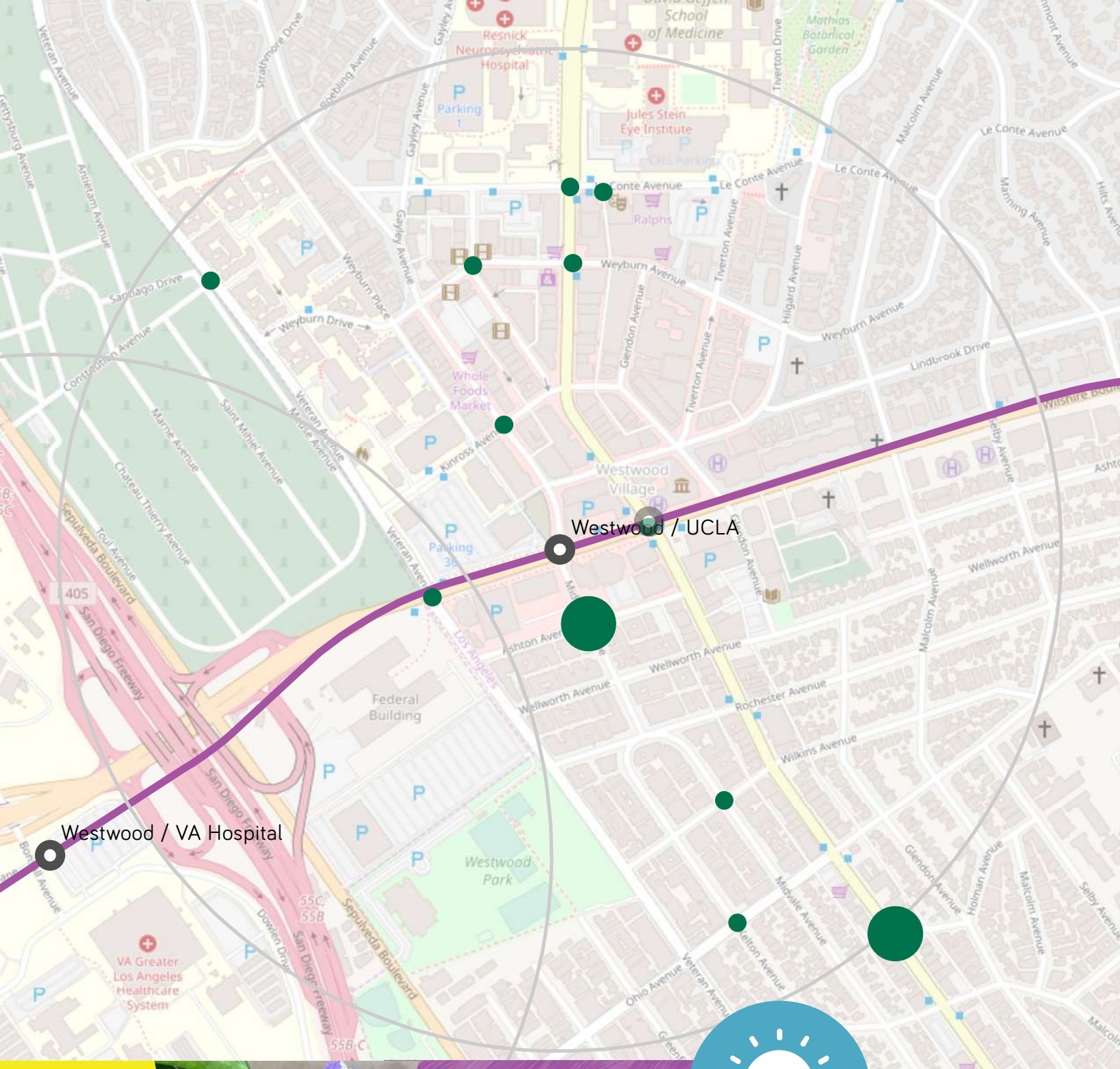
- 1
- 2



WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 05.23.19

Proposed Crosswalk Spot Improvements

-  1
-  2
-  3
-  4

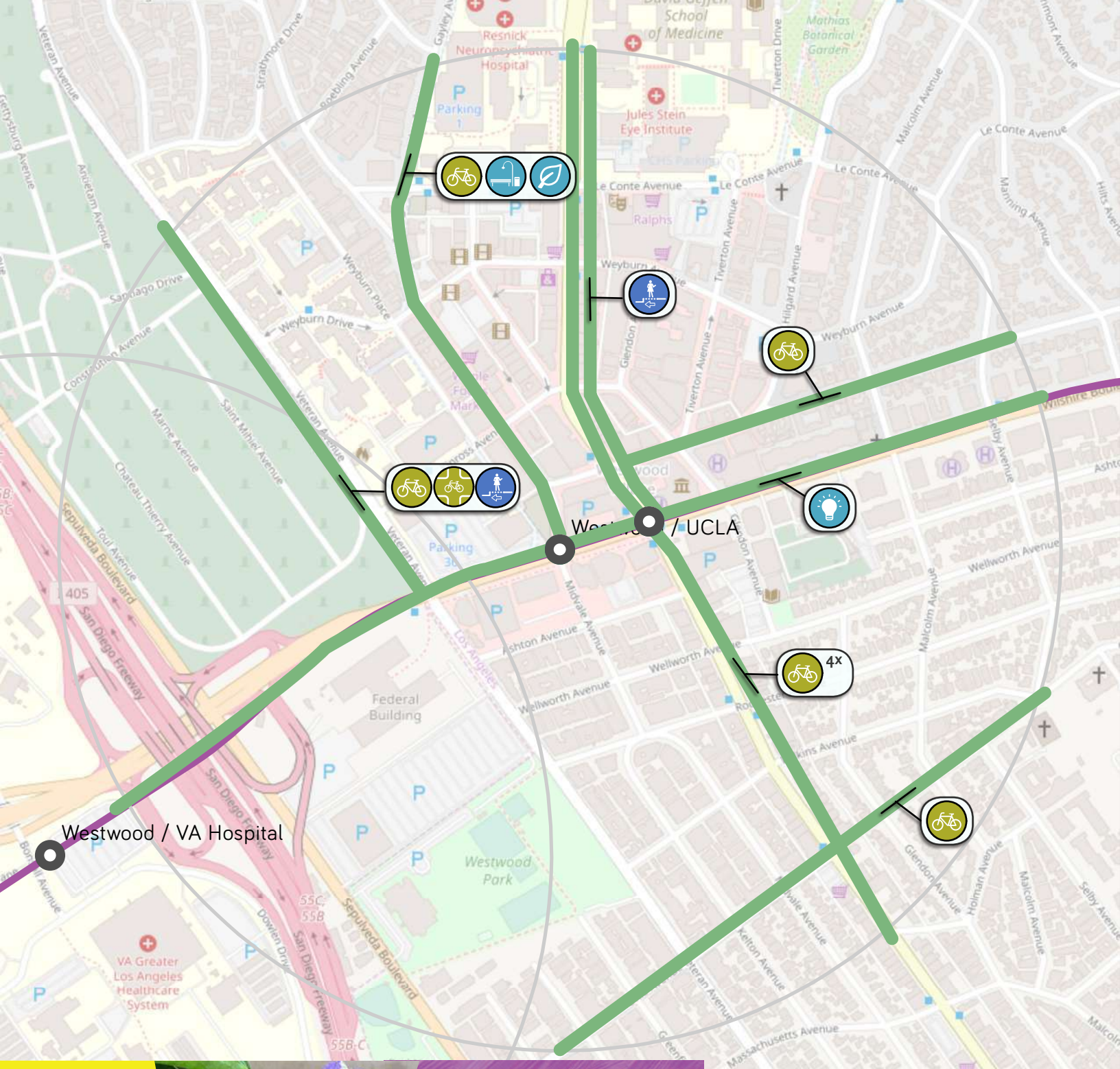


WESTWOOD / UCLA POP UP SUMMARY *Pop Up Date: 05.23.19*



Proposed Ped & Bike Lighting Spot Improvements

- 1
- 2

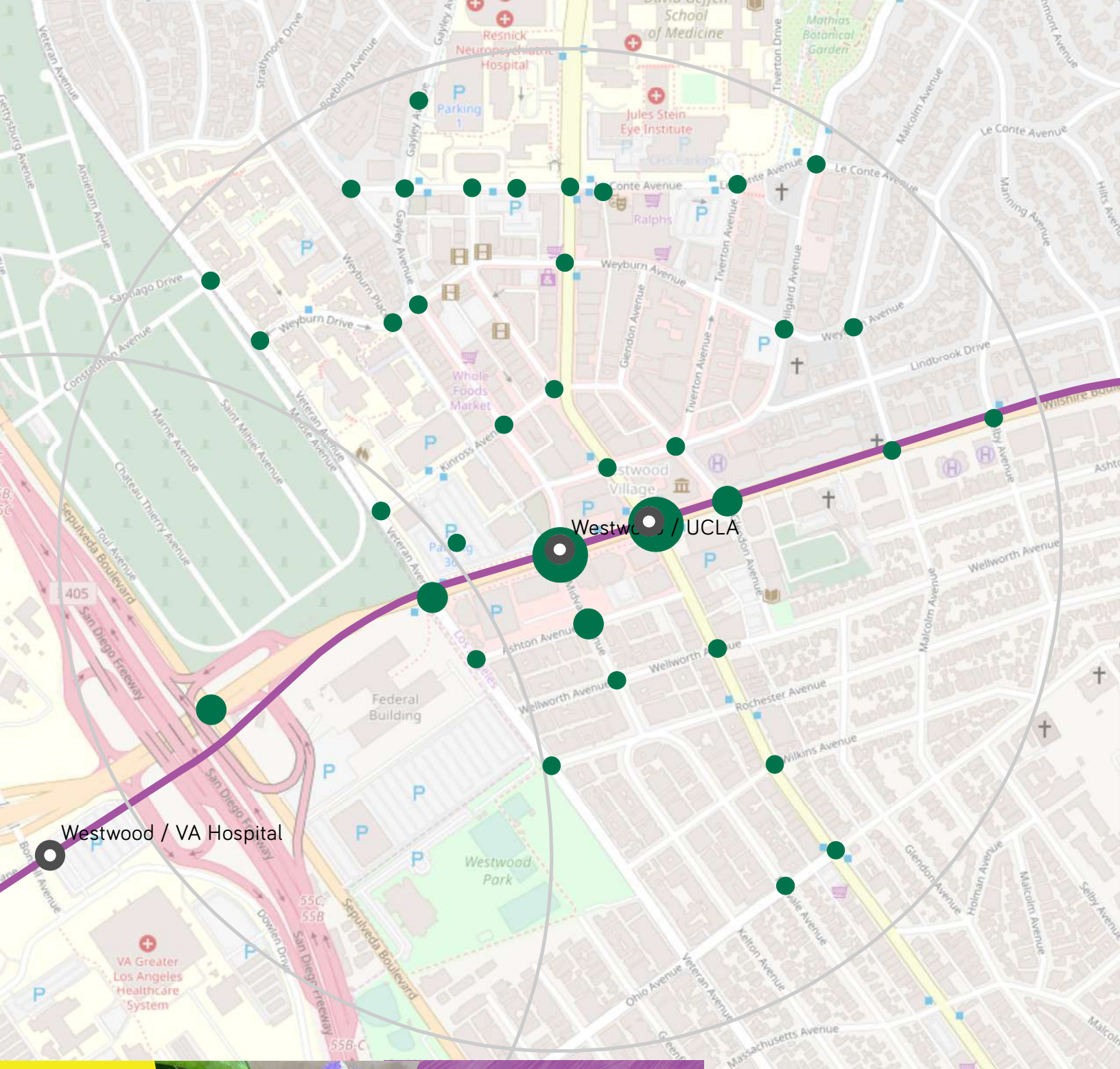


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 05.23.19

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 Facility
- Bicycle Friendly Intersection



WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19

Westwood Village Farmers' Market

Proposed Spot Improvements by Intersection

- 1-6
- 7-12
- 13-18
- 19-24

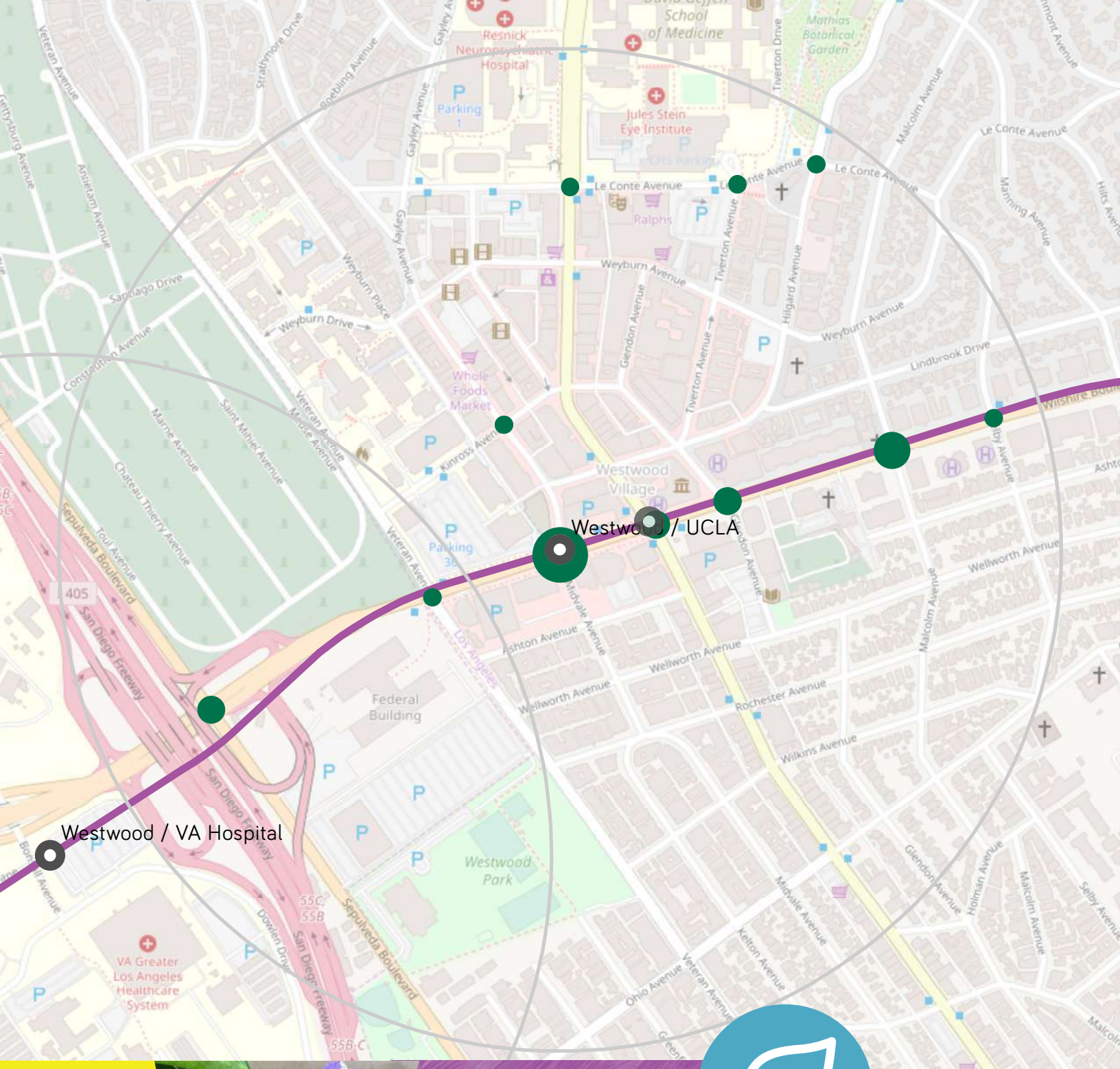
- Top 3 Intersections:**
- Wilshire Blvd & Gayley Ave (24)
 - Wilshire Blvd & Westwood Blvd (23)
 - Wilshire Blvd & Veteran Ave (10)

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

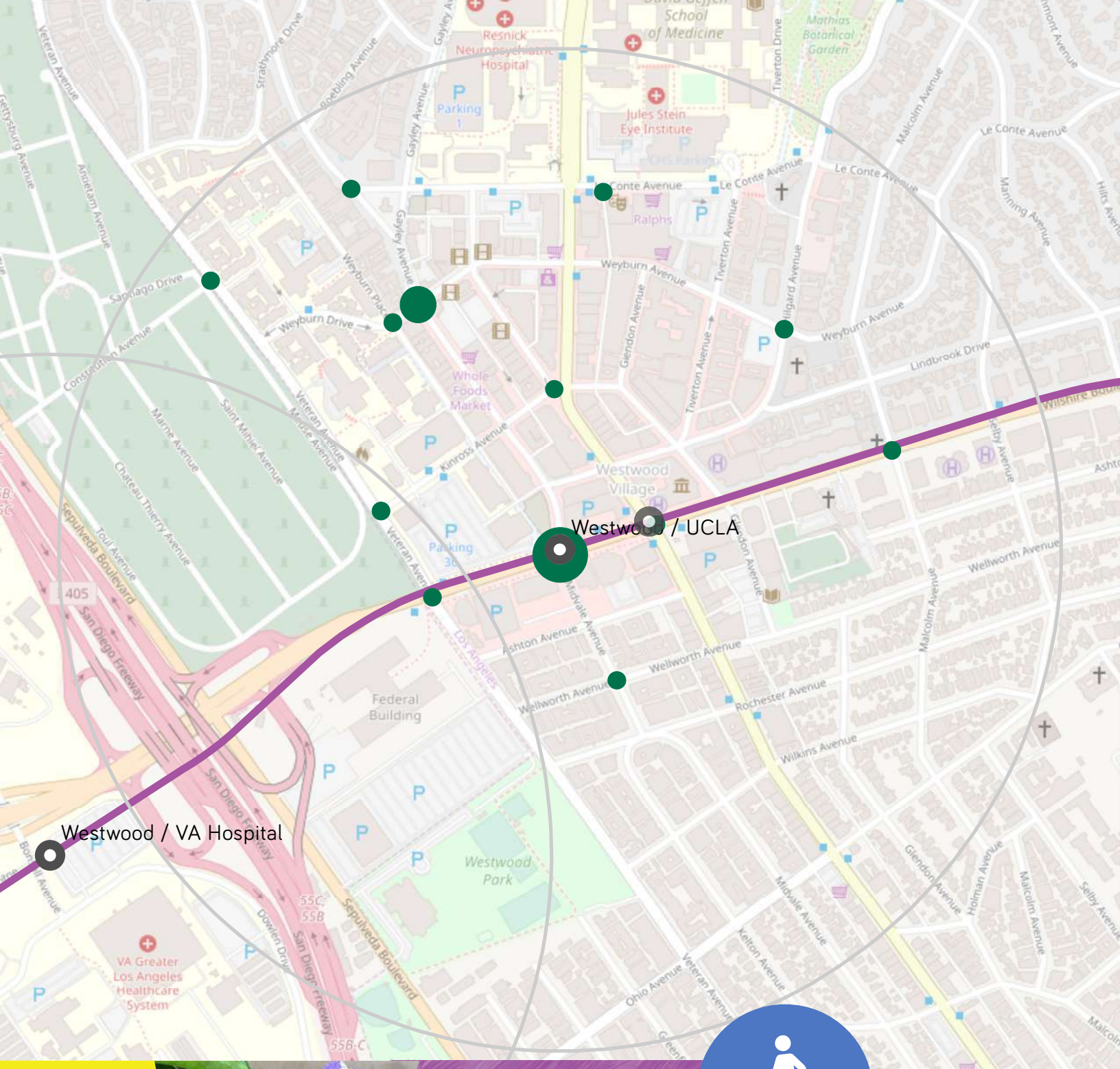


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Landscaping & Shade Spot Improvements

- 1
- 2
- 3
- 4-5

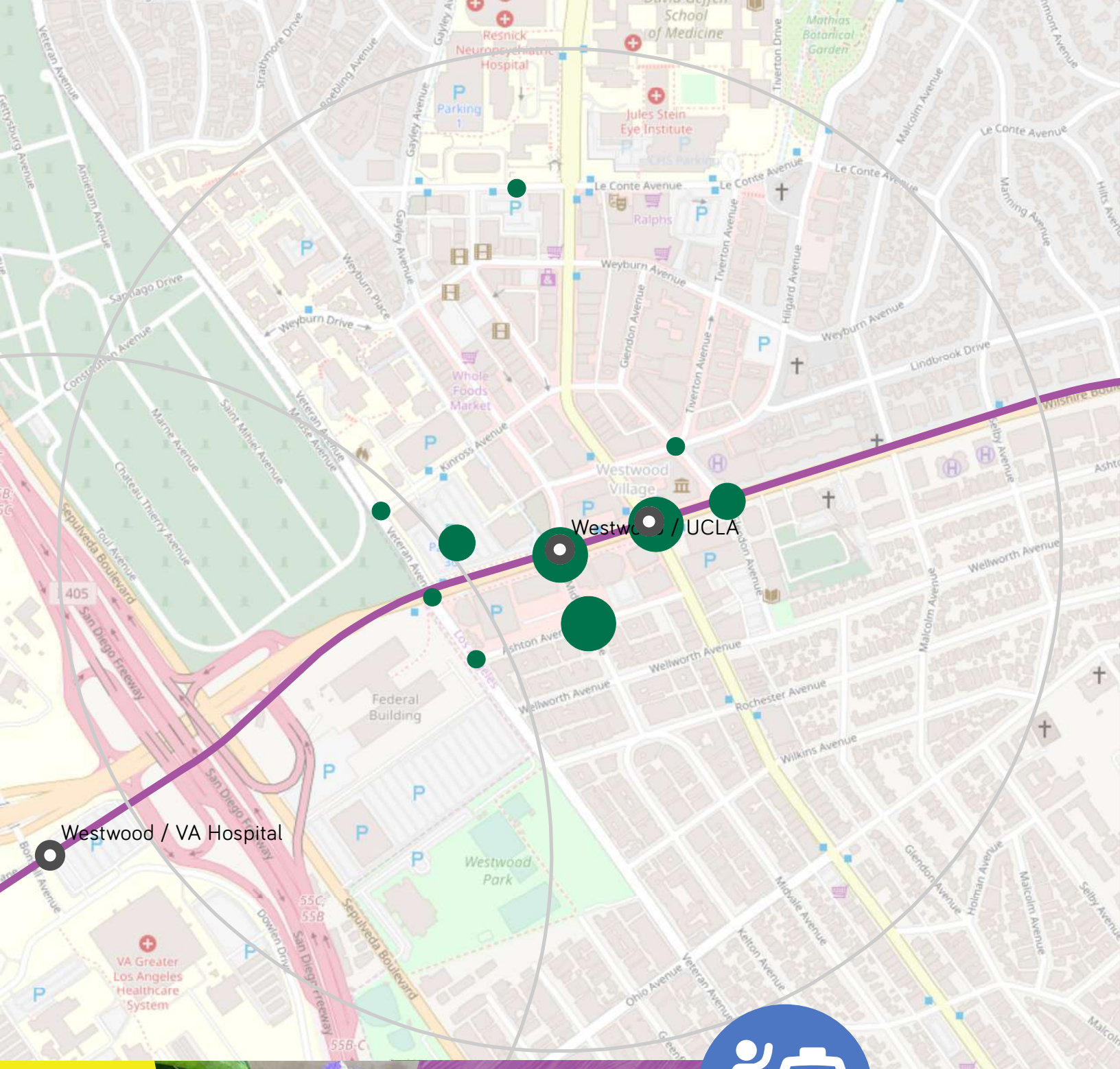


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Crosswalk Spot Improvements

- 1
- 2-3
- 4-5



Westwood / VA Hospital

Westwood / UCLA

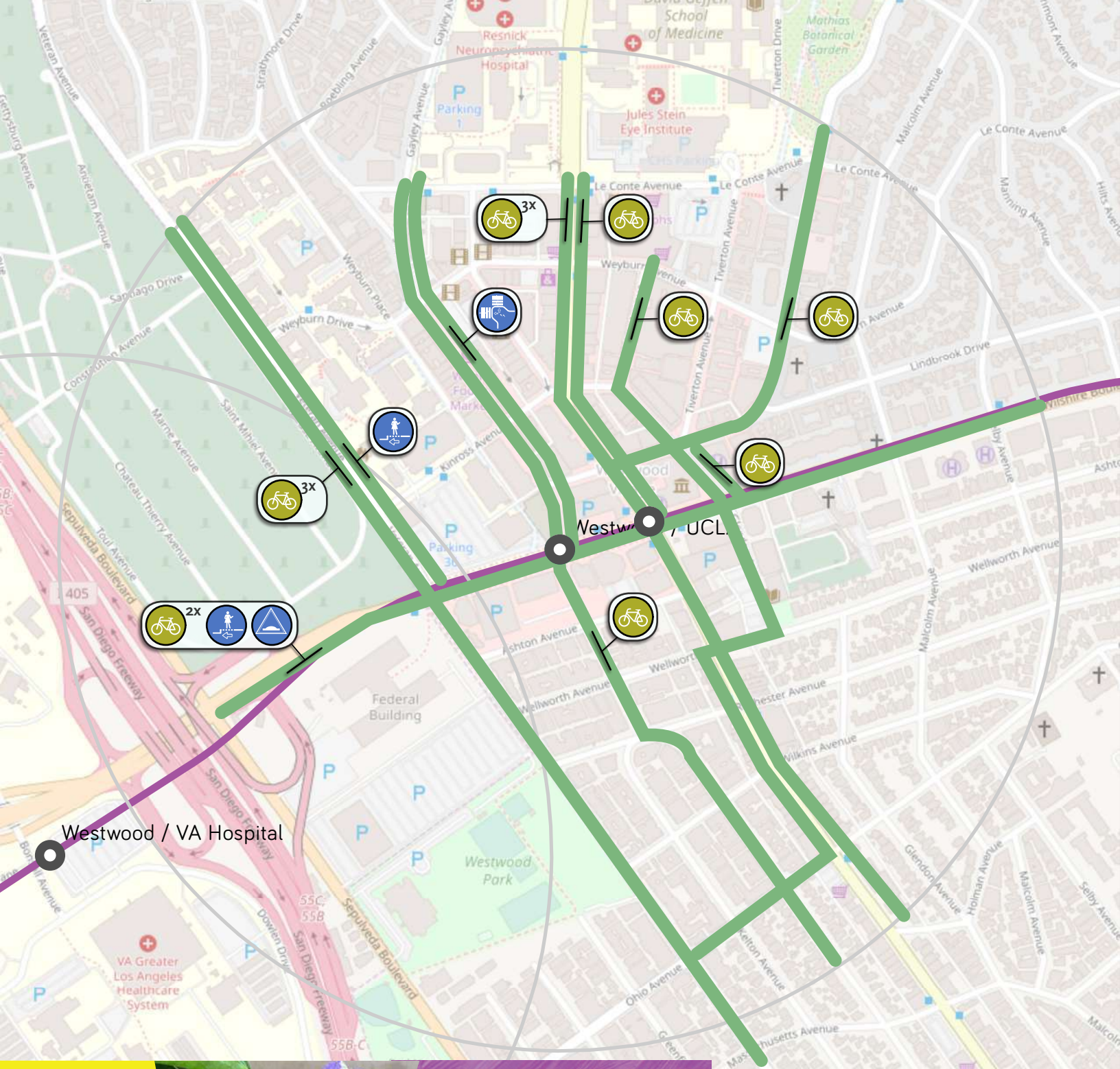


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19



Proposed Drop off / Pick up / Ride Share Spot Improvements

- 1
- 2
- 3

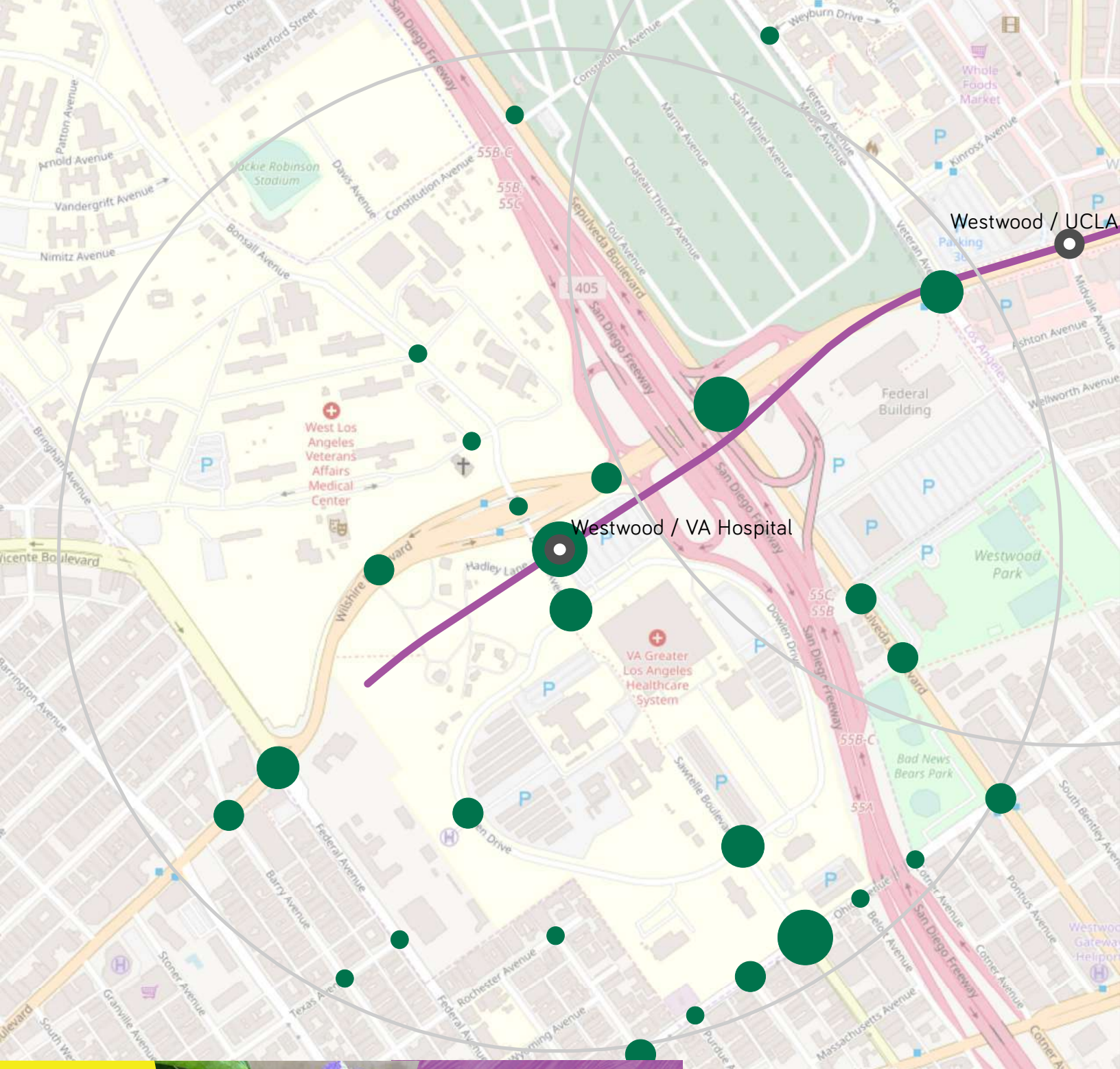


WESTWOOD / UCLA POP UP SUMMARY Pop Up Date: 06.06.19

Westwood Village Farmers' Market

Proposed Corridor Improvements

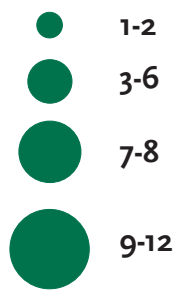
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19

West LA Farmers' Market

Proposed Spot Improvements by Intersection

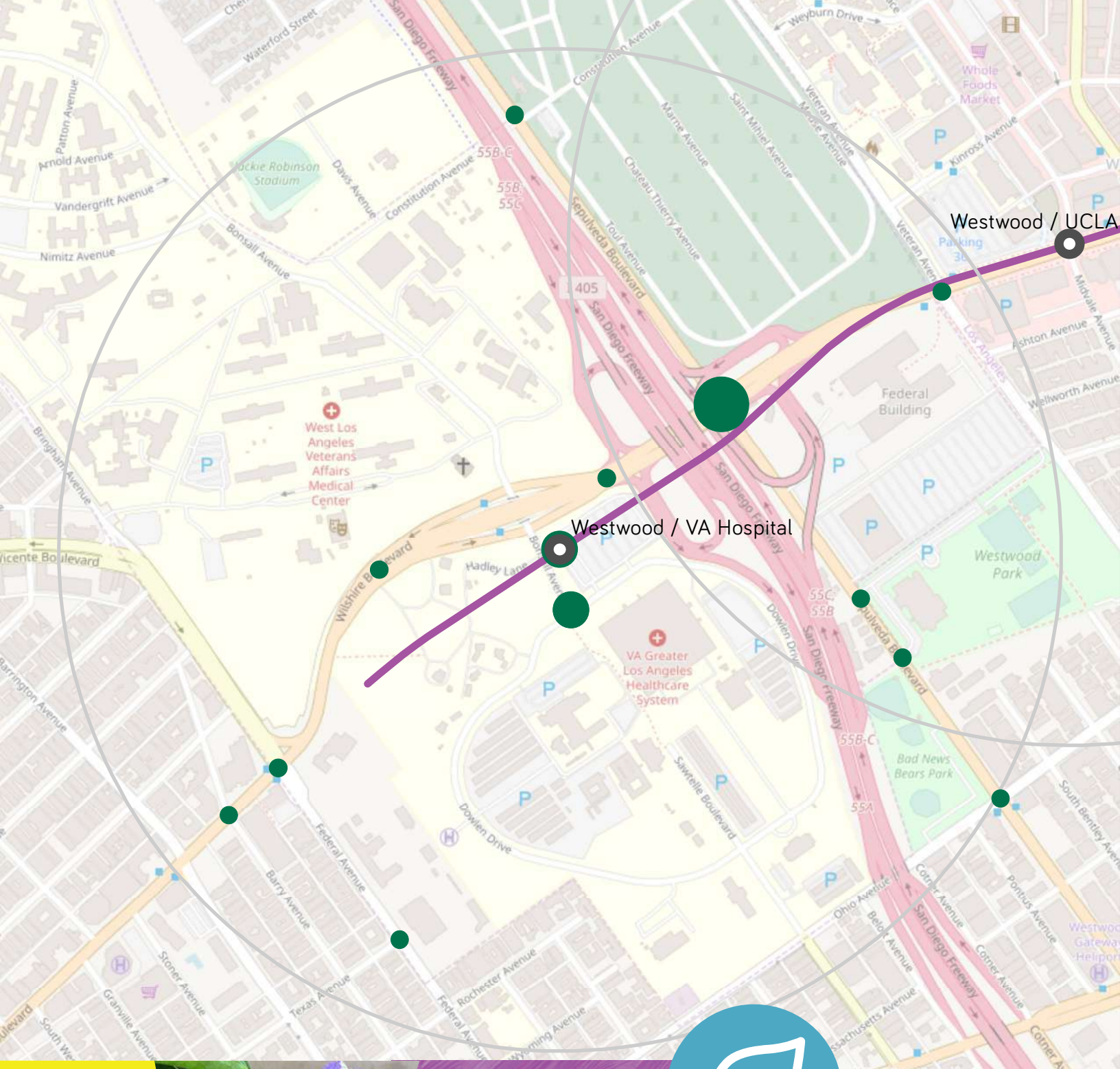


- Top 3 Intersections:**
- Wilshire Blvd & Sepulveda Blvd (12)
 - Ohio Ave & Sawtelle Blvd (12)
 - Station Location (11)

124 Total Proposed Improvements

- 115 Total Spot Improvements
 - Landscaping & Shade (17)
 - Traffic Calming (16)
 - Wayfinding (11)
- 9 Total Corridor Improvements

(Top 3)

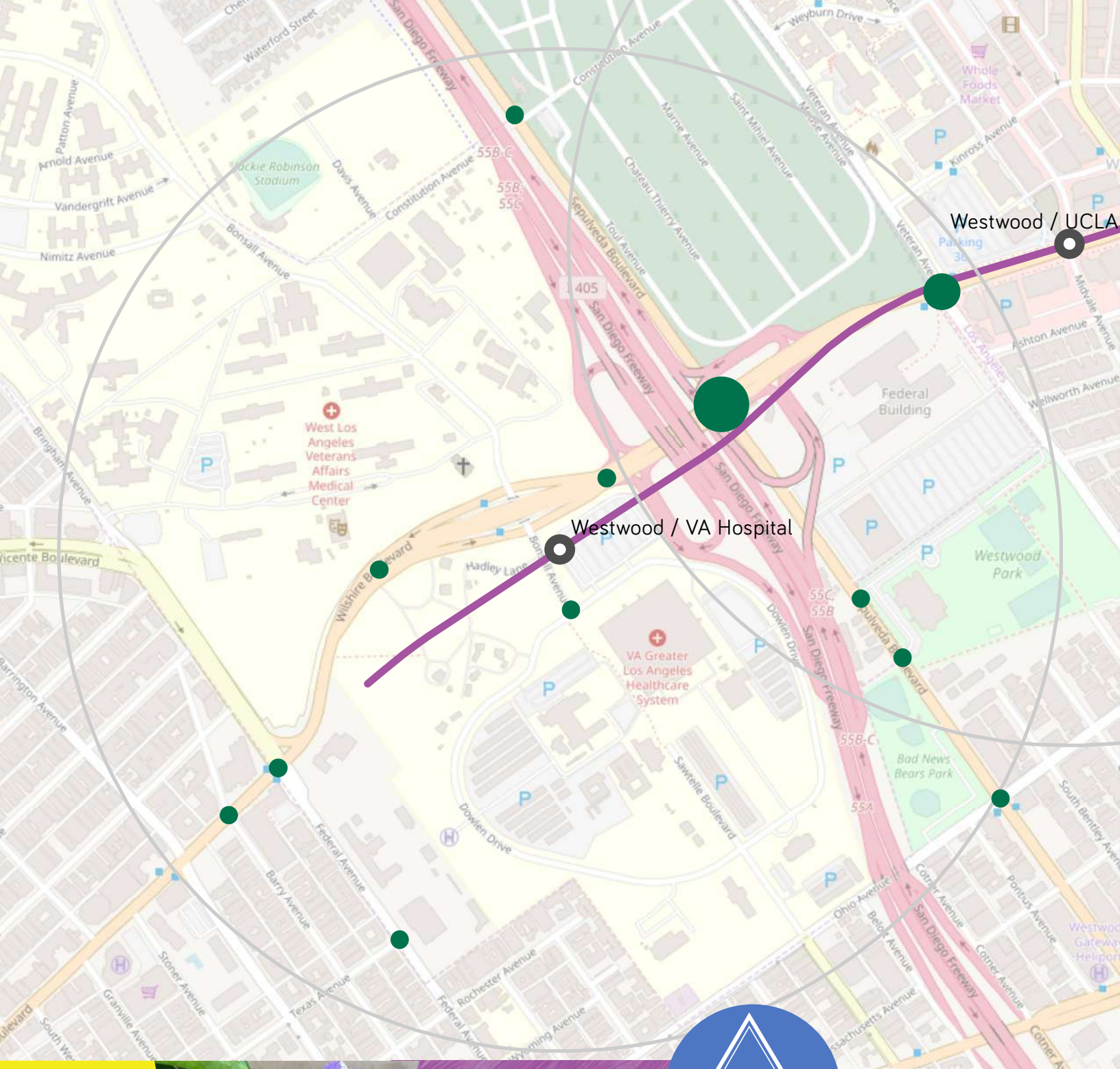


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19



Proposed Landscaping & Shade Spot Improvements




- 1
- 2
- 3

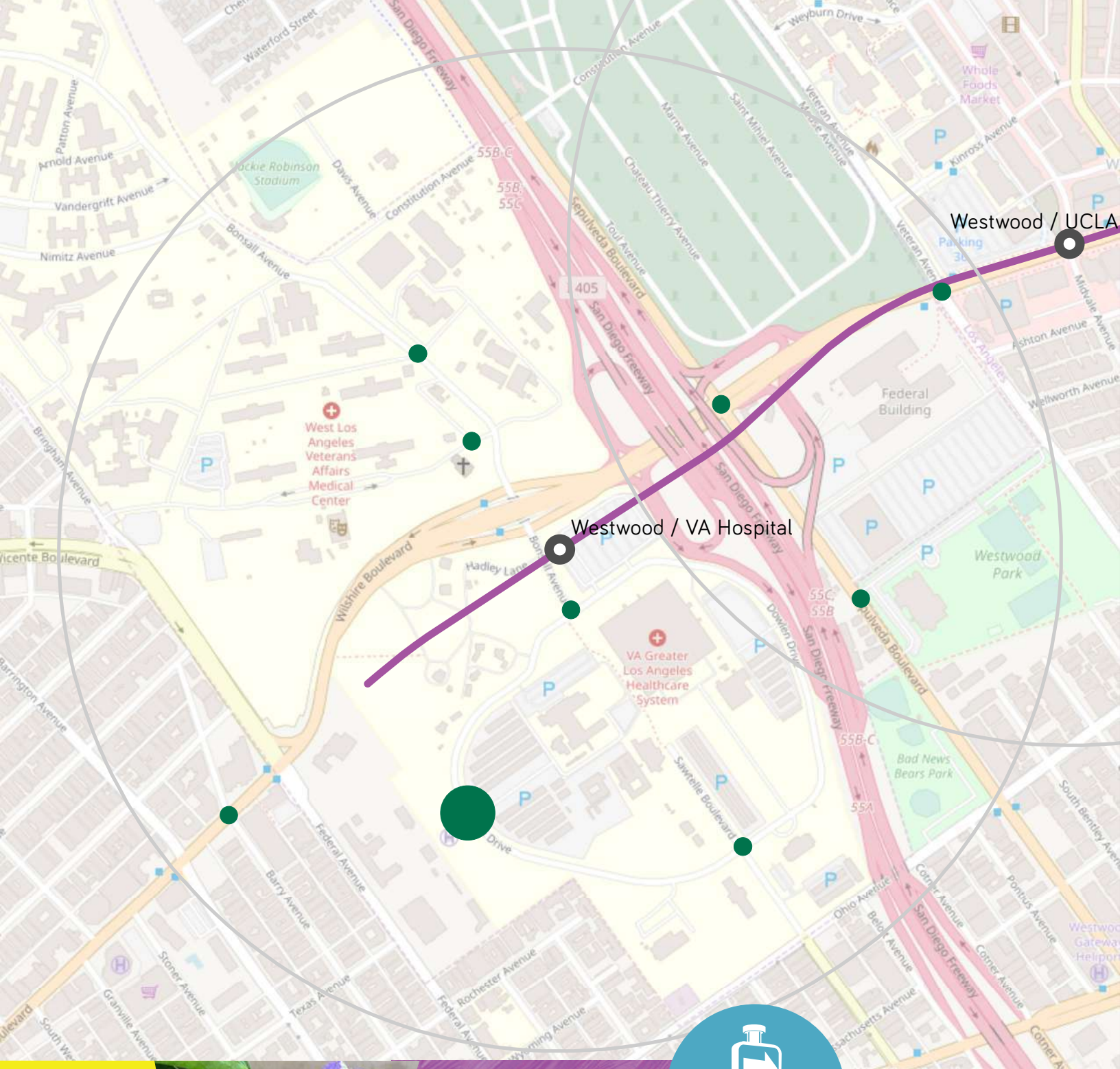


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19



Proposed Traffic Calming Spot Improvements

-  1
-  2
-  3

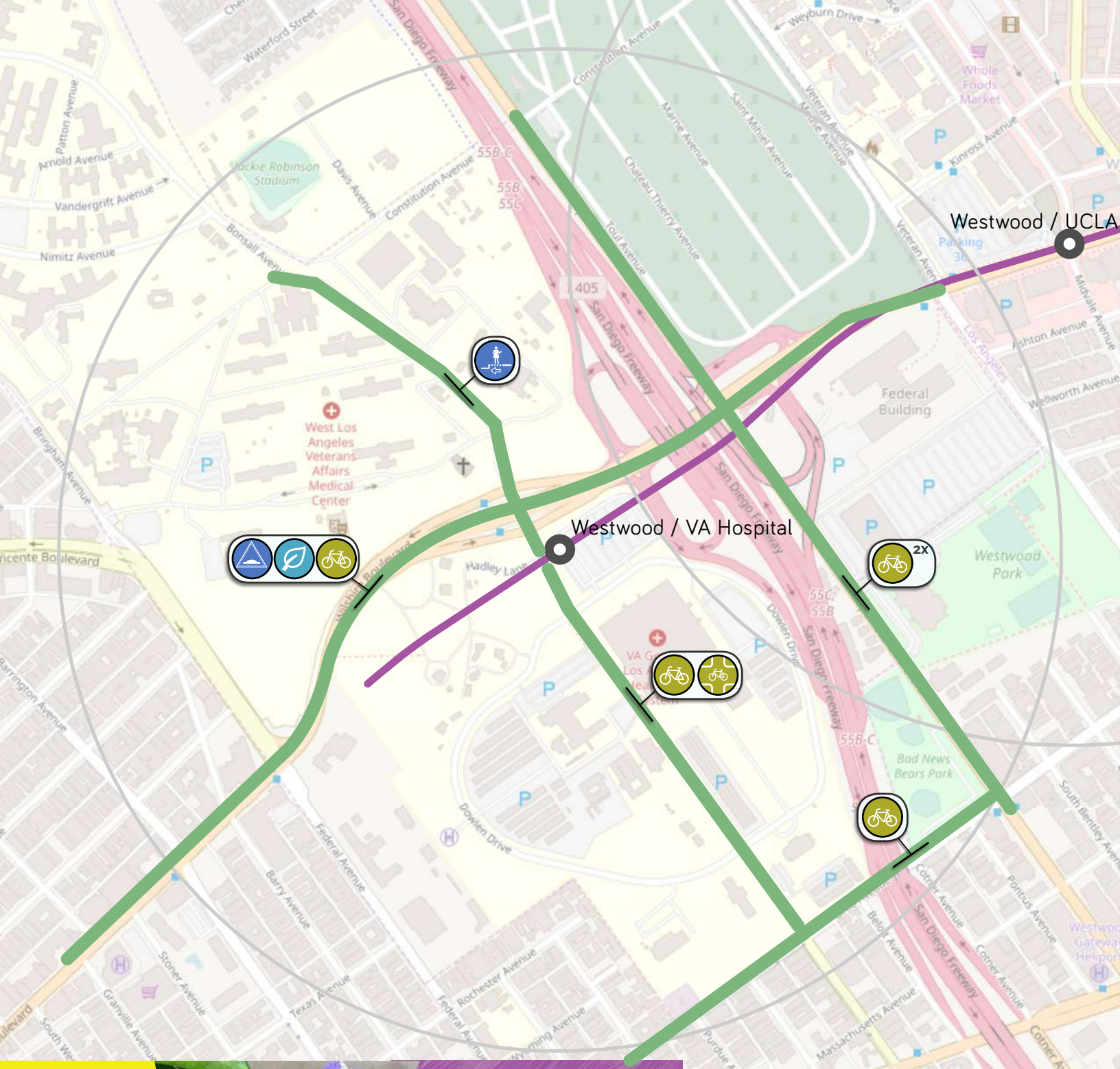


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19



Proposed Wayfinding Spot Improvements

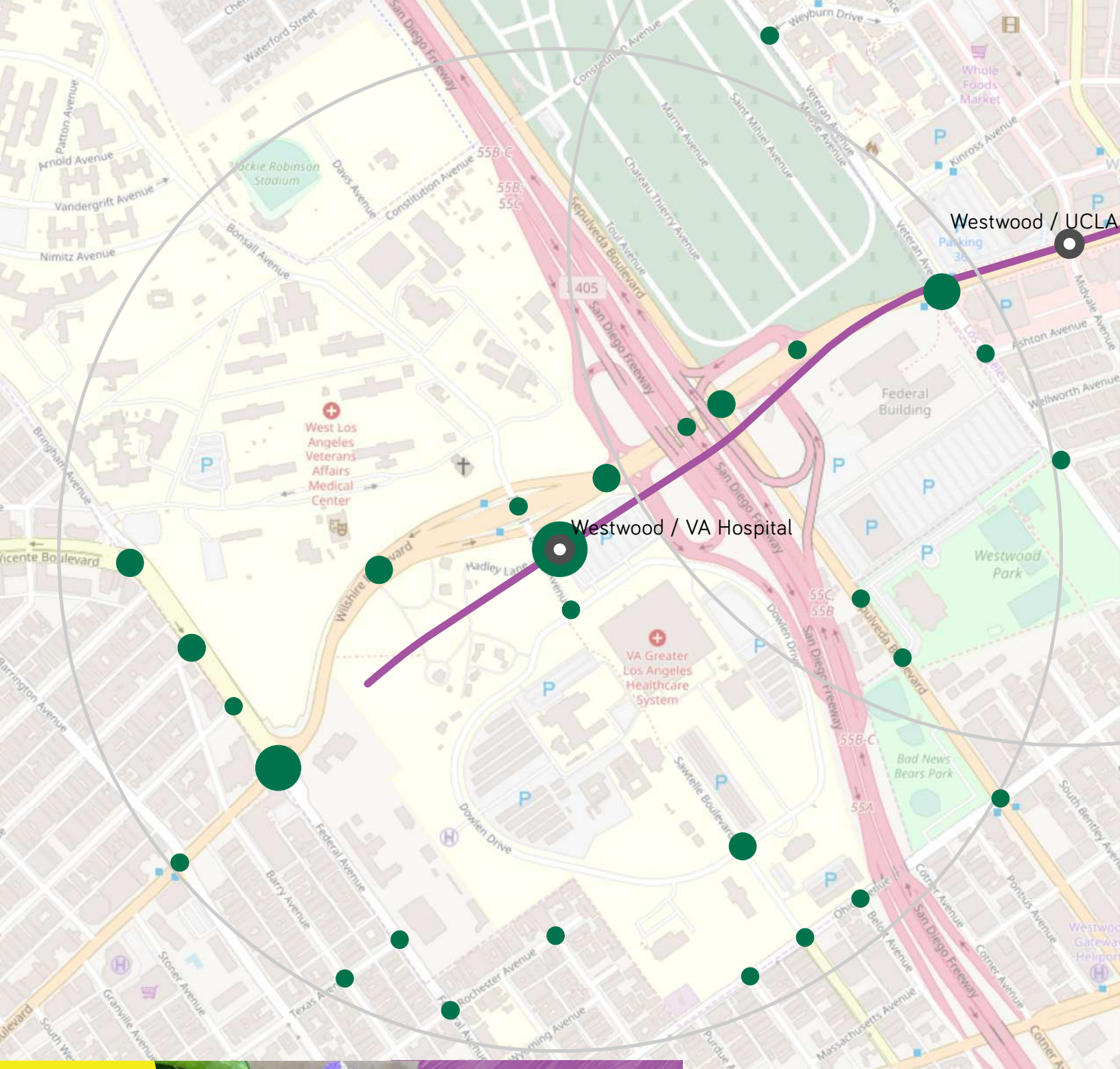
- 1
- 3



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.09.19 **West LA Farmers' Market**

Proposed Corridor Improvements

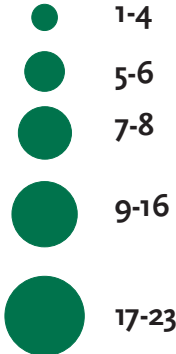
- New or Improved Crosswalks
- New or Improved Sidewalks
- Bulb-outs
- Traffic Calming
- Drop Off / Pick Up / Ride Share
- Street Furniture
- Landscaping & Shade
- Pedestrian & Bicycle Lighting
- Wayfinding Signs
- Bus Stop Improvements
- Bicycle Facility
- Bicycle Friendly Intersection



WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19

Brentwood Farmers' Market

Proposed Spot Improvements by Intersection



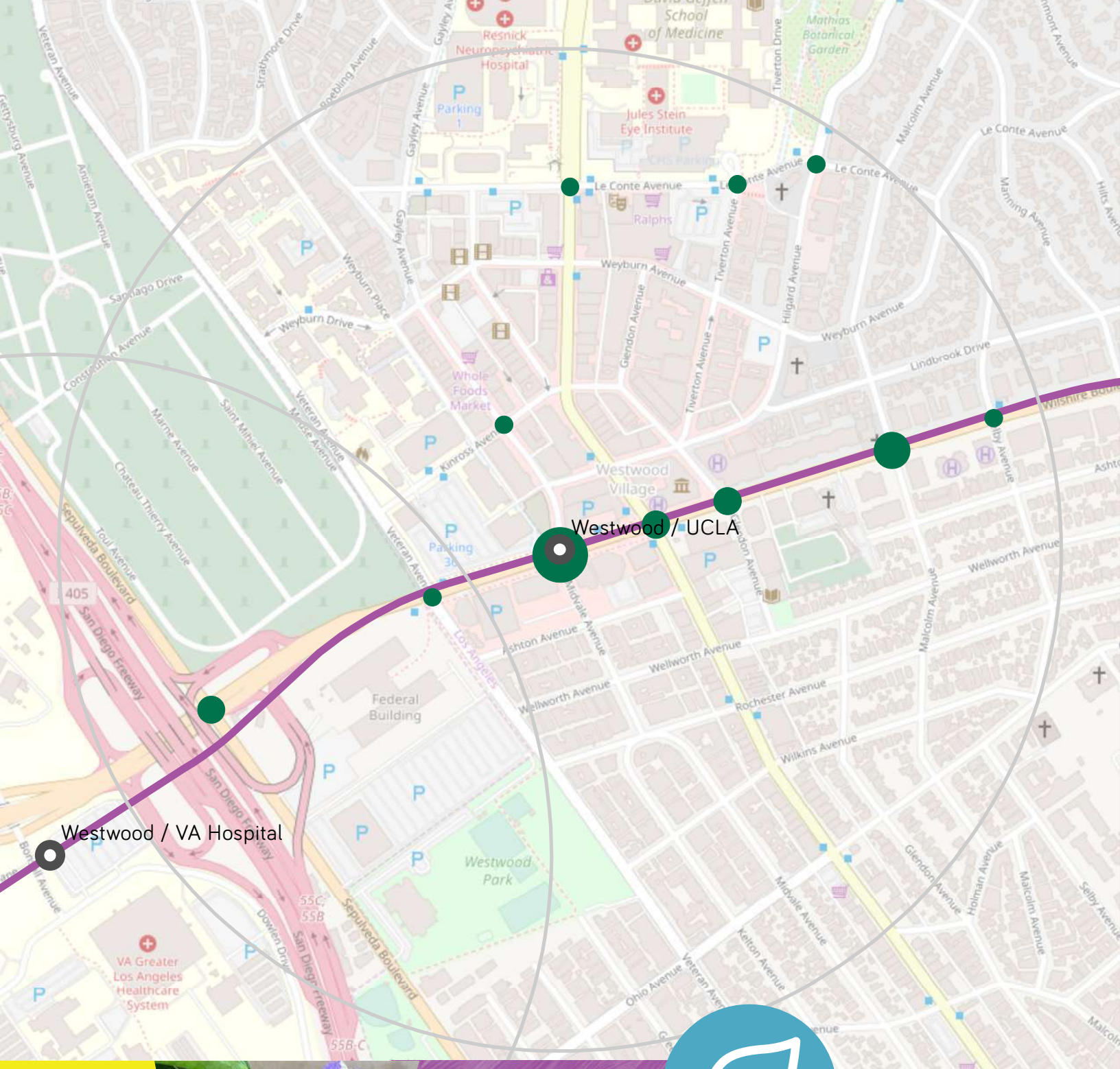
- Top 3 Intersections:**
- Station Location (23)
 - Federal Ave & San Vicente Blvd (14)
 - Wilshire Blvd & Veteran Ave (7)

158 Total Proposed Improvements





- 121 Total Spot Improvements
- Landscaping & Shade (19)
 - Bike Facilities (16)
 - Traffic Calming (12)



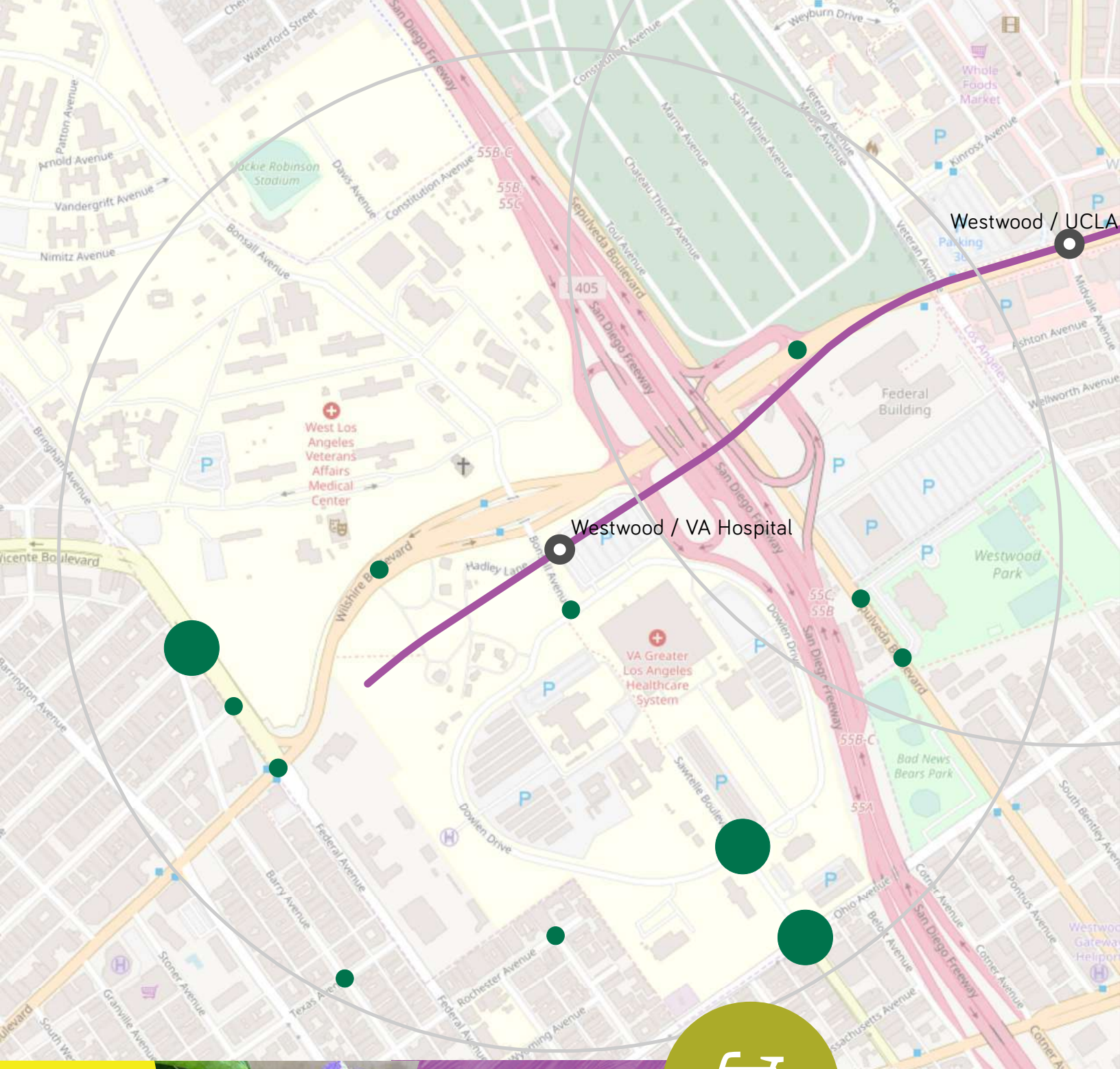
37 Total Corridor Improvements



Proposed Landscaping & Shade Spot Improvements



-  1
-  2
-  3
-  4-5

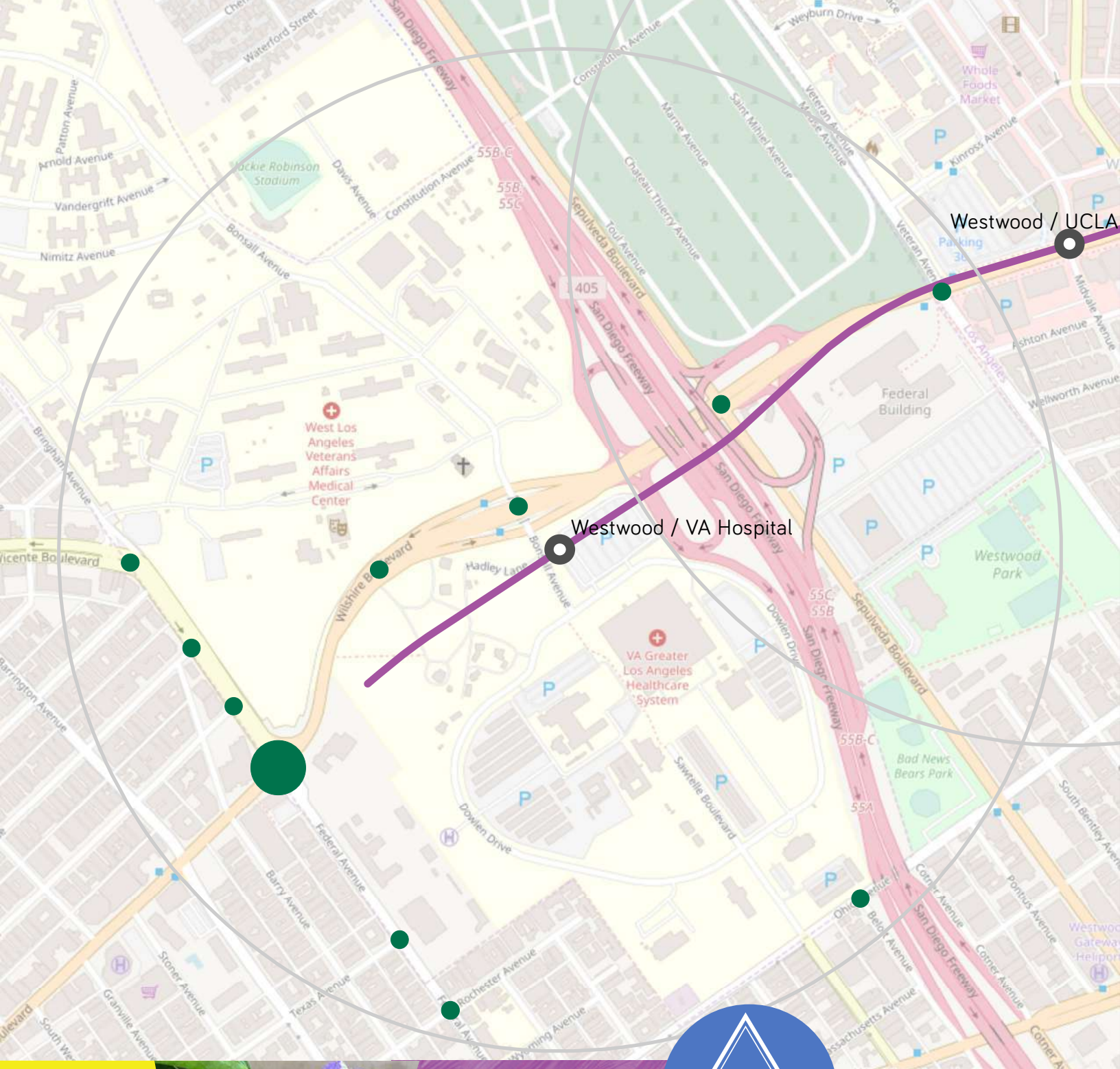




WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19 

Proposed Bike Facilities Spot Improvements

-  1
-  2

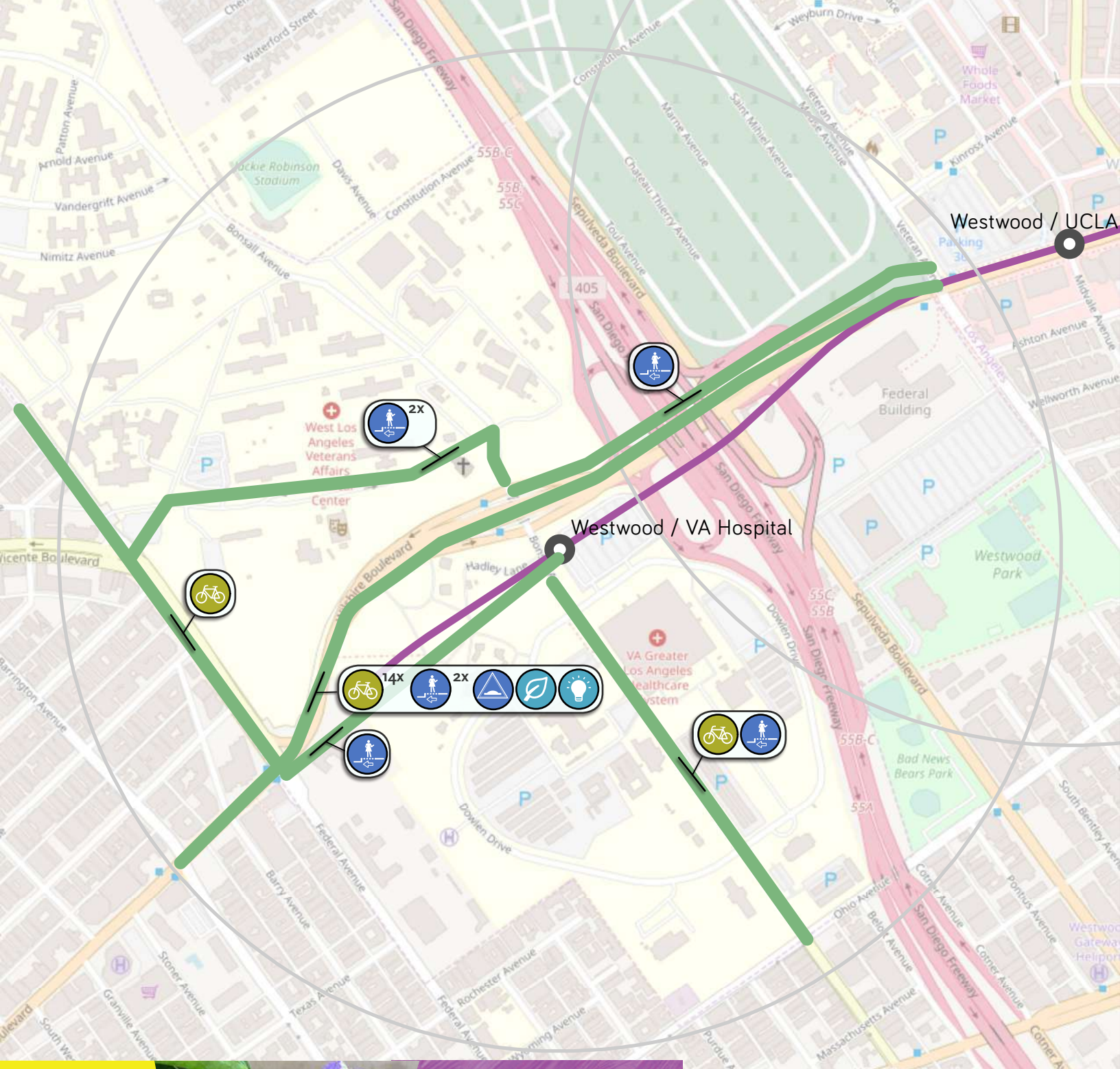


WESTWOOD / VA POP UP SUMMARY Pop Up Date: 06.16.19



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

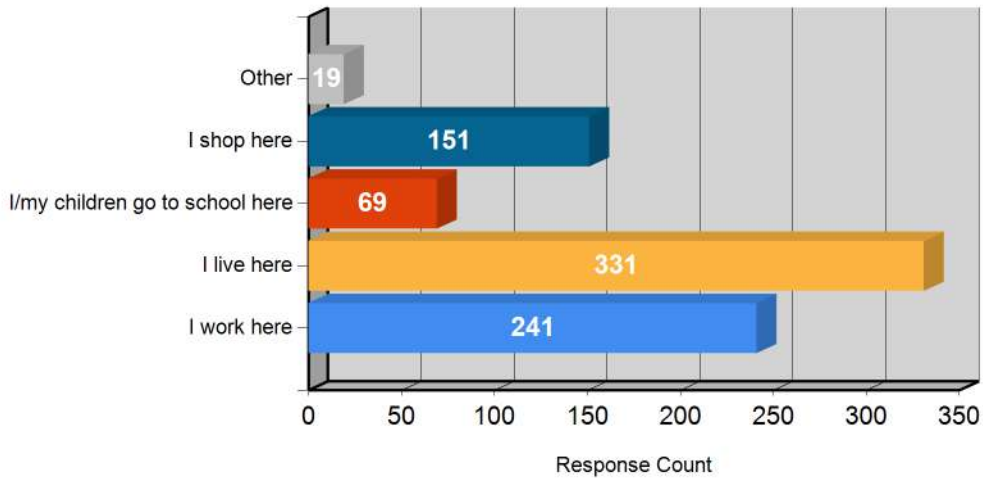
Results from the survey indicate that more landscaping and shade (63% as extremely or very important) would be the most requested first/last mile improvement for potential Purple Line Extension riders. Other key improvements include improved pedestrian and bike lighting (62%) and new or improved crosswalks (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



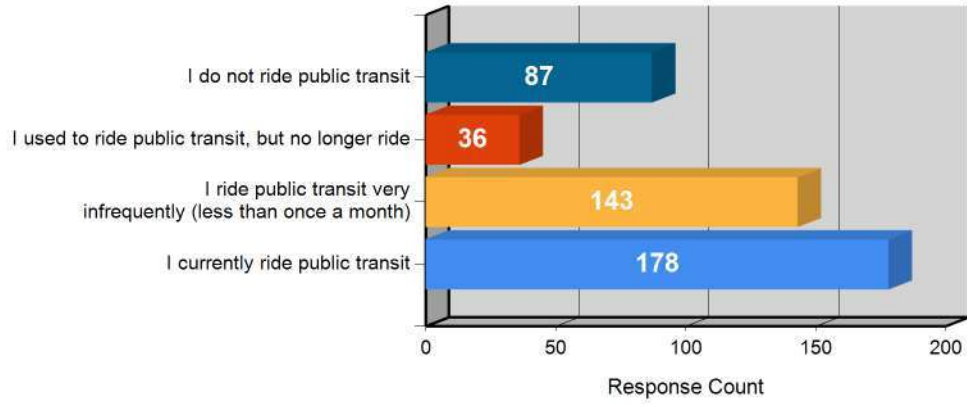
Choice	Response Percent	Response Total
1 I work here	54.40 %	241
2 I live here	74.72 %	331
3 I/my children go to school here	15.58 %	69
4 I shop here	34.09 %	151
5 Other	4.29 %	19

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



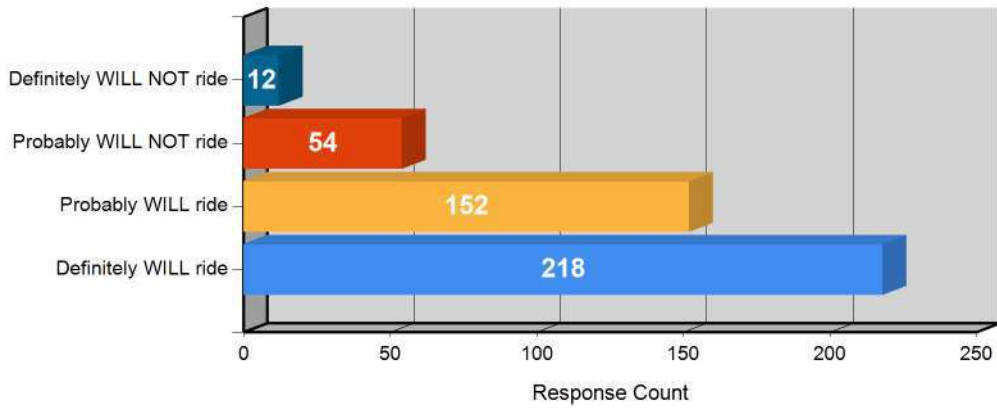
	Choice	Response Percent	Response Total
1	I currently ride public transit	40.09 %	178
2	I ride public transit very infrequently (less than once a month)	32.21 %	143
3	I used to ride public transit, but no longer ride	8.11 %	36
4	I do not ride public transit	19.59 %	87

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



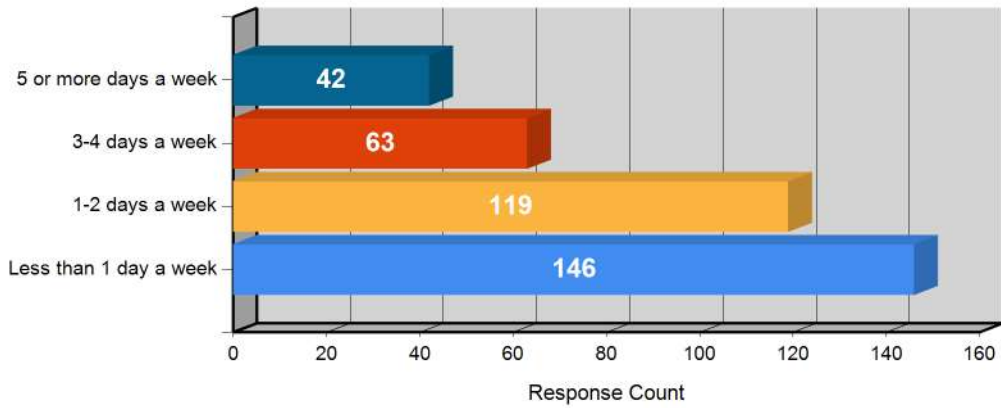
	Choice	Response Percent	Response Total
1	Definitely WILL ride	50.00 %	218
2	Probably WILL ride	34.86 %	152
3	Probably WILL NOT ride	12.39 %	54
4	Definitely WILL NOT ride	2.75 %	12

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



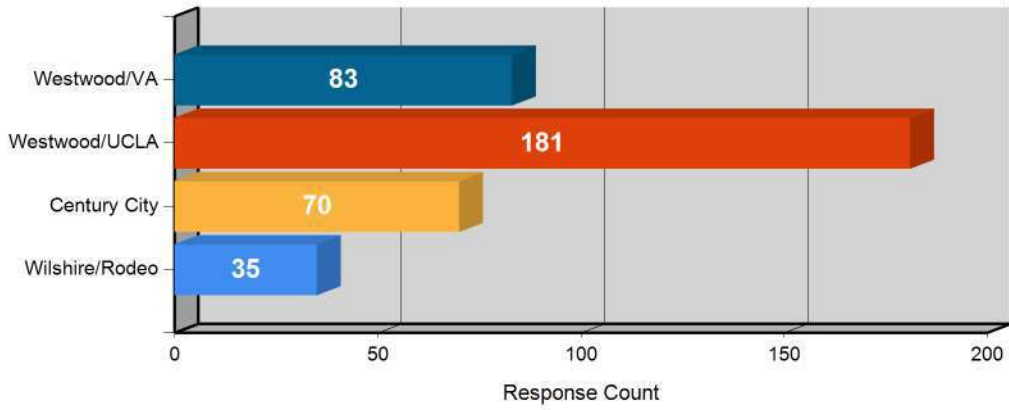
	Choice	Response Percent	Response Total
1	Less than 1 day a week	39.46 %	146
2	1-2 days a week	32.16 %	119
3	3-4 days a week	17.03 %	63
4	5 or more days a week	11.35 %	42

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



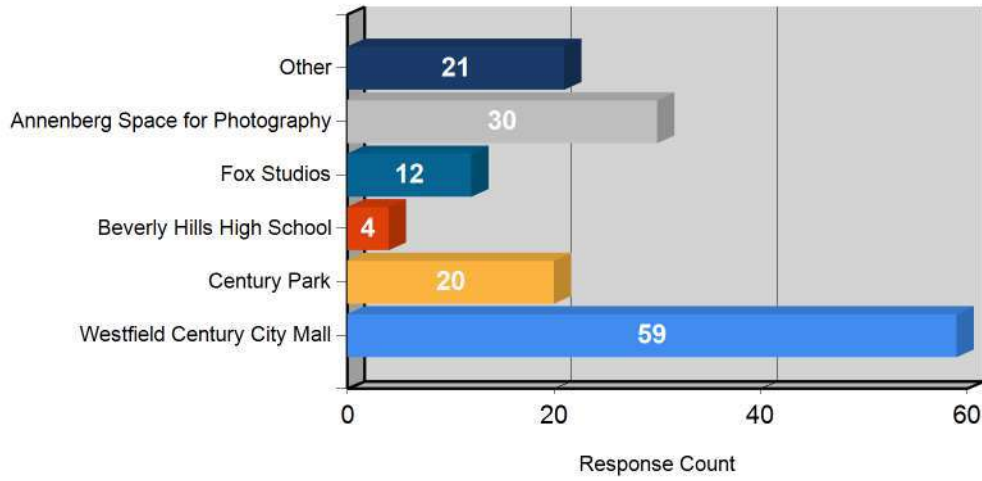
Choice	Response Percent	Response Total
1 Rodeo Drive shopping/dining	36.36 %	12
2 Beverly Hills City Hall	18.18 %	6
3 Wallis Annenberg Center for the Performing Arts	21.21 %	7
4 Residential neighborhoods	42.42 %	14
5 Other	33.33 %	11

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



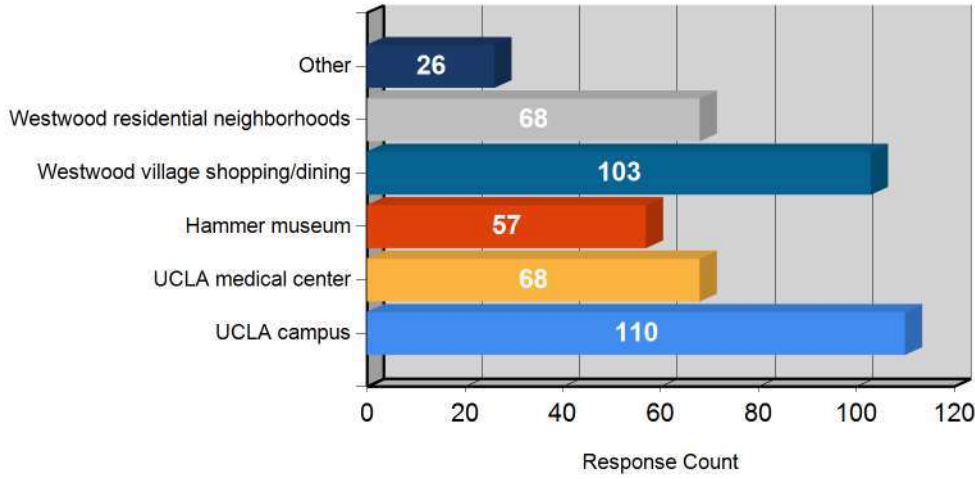
Choice	Response Percent	Response Total
1 Westfield Century City Mall	83.10 %	59
2 Century Park	28.17 %	20
3 Beverly Hills High School	5.63 %	4
4 Fox Studios	16.90 %	12
5 Annenberg Space for Photography	42.25 %	30
6 Other	29.58 %	21

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



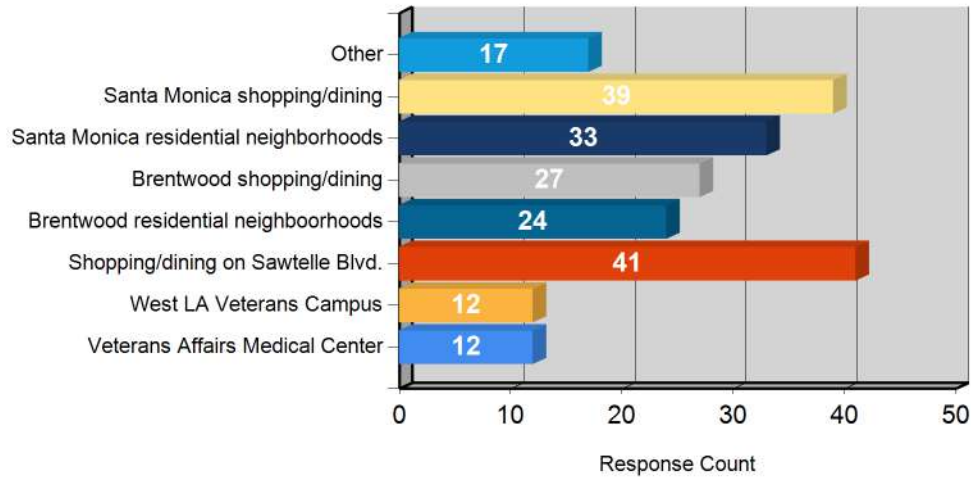
Choice	Response Percent	Response Total
1 UCLA campus	62.15 %	110
2 UCLA medical center	38.42 %	68
3 Hammer museum	32.20 %	57
4 Westwood village shopping/dining	58.19 %	103
5 Westwood residential neighborhoods	38.42 %	68
6 Other	14.69 %	26

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

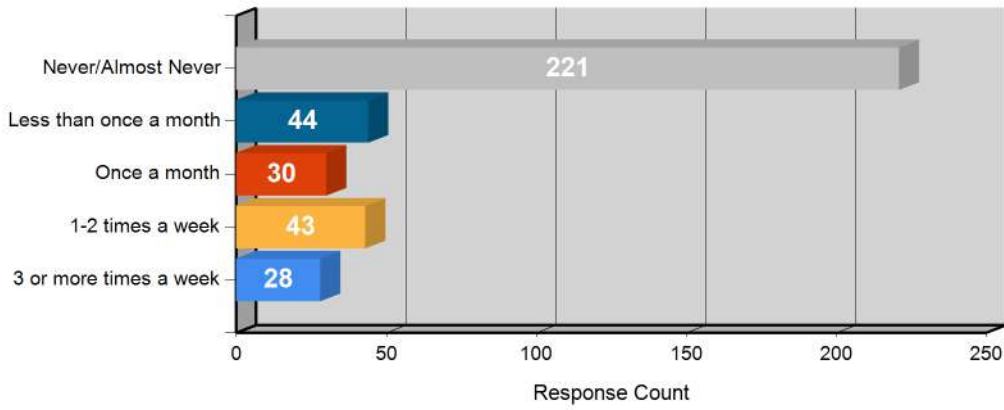
	1 (Not at all Important)	2	3	4	5 (Extremely Important)	Response Total
Improved sidewalks	5.6%	10.9%	27.7%	23.1%	32.7%	303
	17	33	84	70	99	
Improved bus stops	7.9%	9.9%	26.4%	24.1%	31.7%	303
	24	30	80	73	96	
New or improved crosswalks	6.3%	7.6%	26.7%	30.0%	29.4%	303
	19	23	81	91	89	
Slowing speed of traffic 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



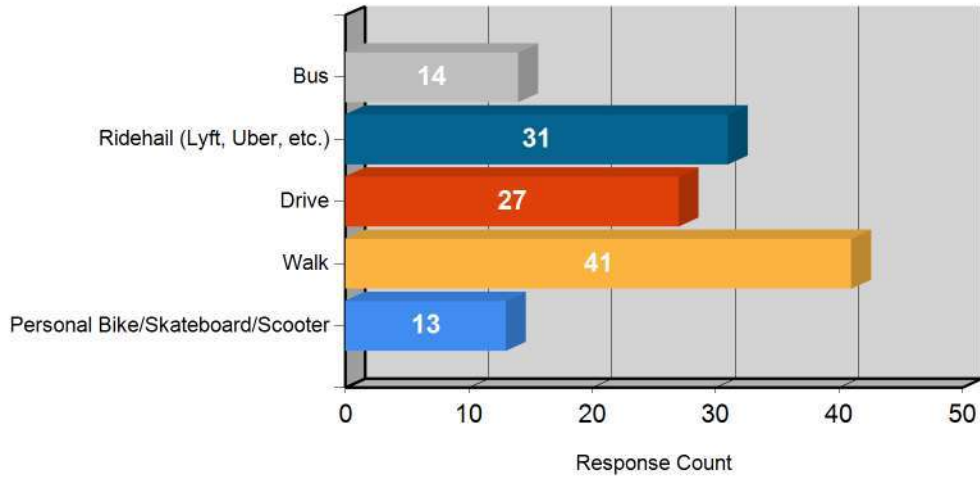
	Choice	Response Percent	Response Total
1	3 or more times a week	7.65 %	28
2	1-2 times a week	11.75 %	43
3	Once a month	8.20 %	30
4	Less than once a month	12.02 %	44
5	Never/Almost Never	60.38 %	221

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



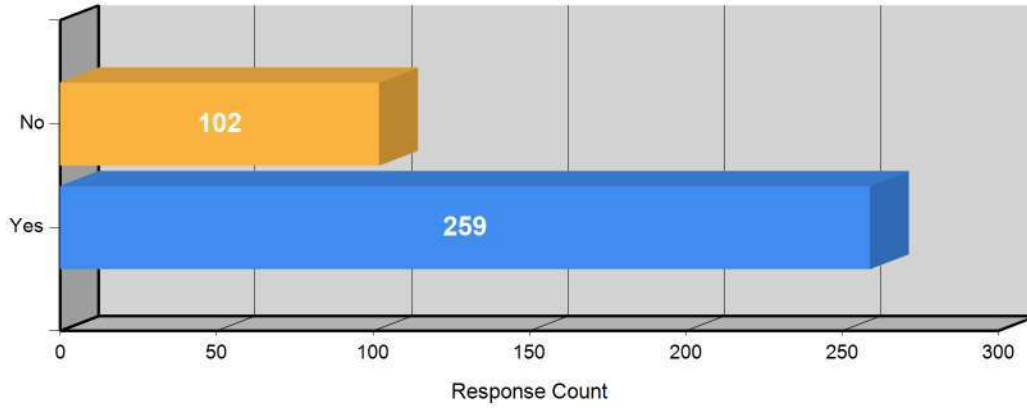
Choice	Response Percent	Response Total
1 Personal Bike/Skateboard/Scooter	18.84 %	13
2 Walk	59.42 %	41
3 Drive	39.13 %	27
4 Ridehail (Lyft, Uber, etc.)	44.93 %	31
5 Bus	20.29 %	14

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?

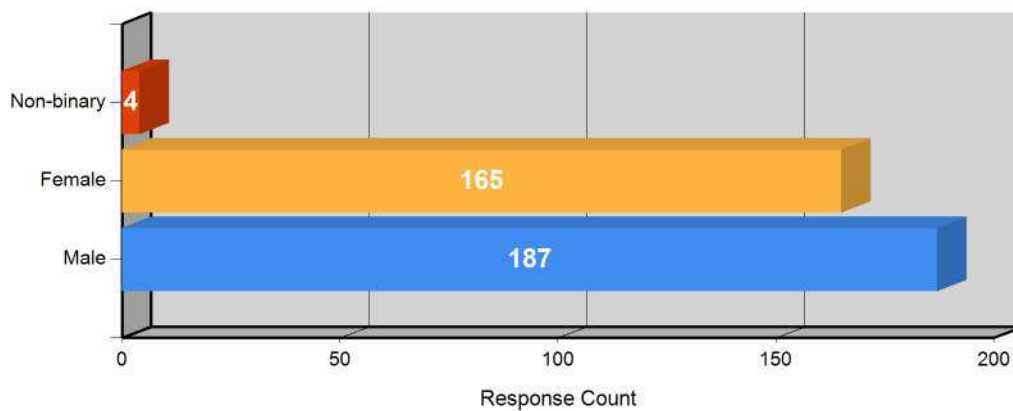
Total Respondents:	259
Total Skipped:	0

	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



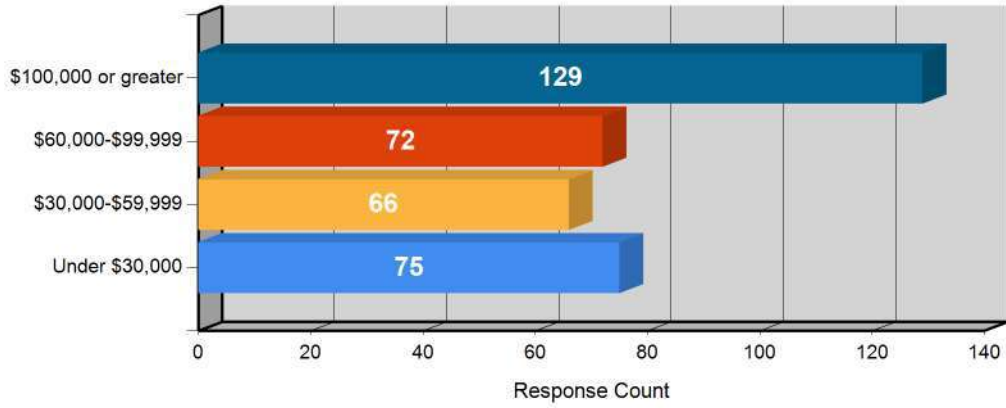
	Choice	Response Percent	Response Total
1	Male	52.53 %	187
2	Female	46.35 %	165
3	Non-binary	1.12 %	4

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



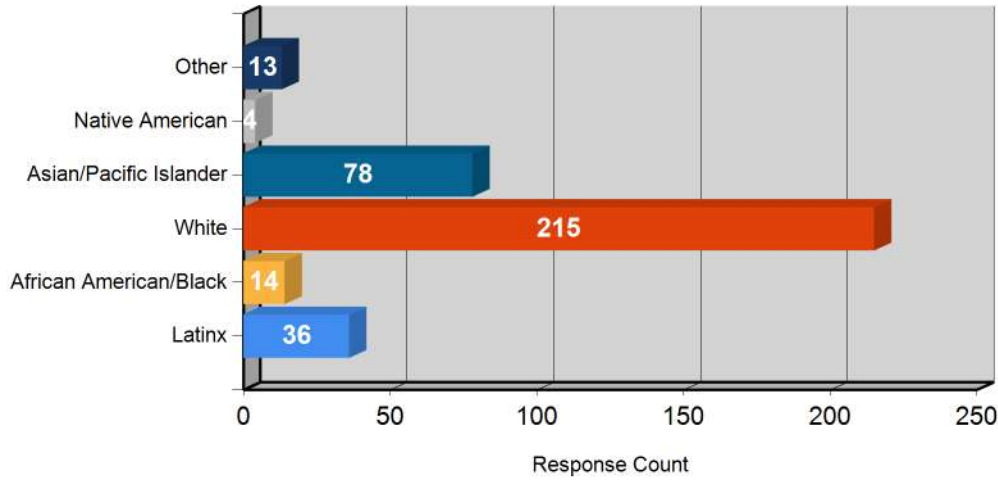
	Choice	Response Percent	Response Total
1	Under \$30,000	21.93 %	75
2	\$30,000-\$59,999	19.30 %	66
3	\$60,000-\$99,999	21.05 %	72
4	\$100,000 or greater	37.72 %	129

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

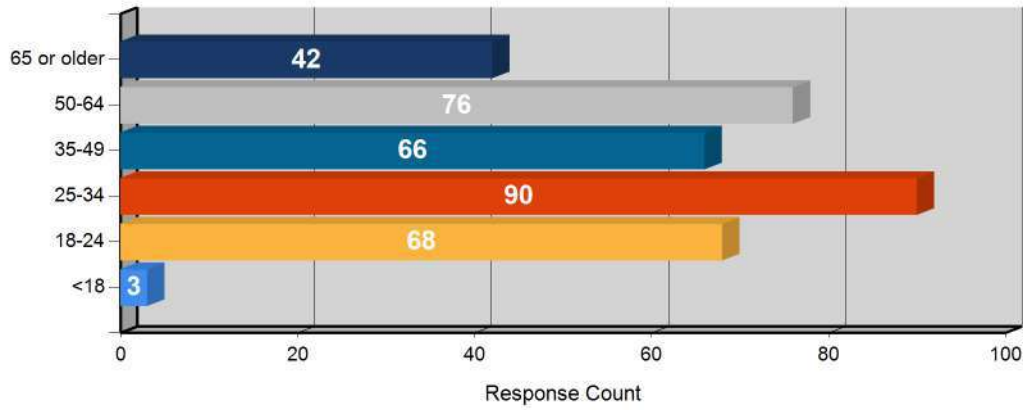


Choice	Response Percent	Response Total
1 Latinx	10.47 %	36
2 African American/Black	4.07 %	14
3 White	62.50 %	215
4 Asian/Pacific Islander	22.67 %	78
5 Native American	1.16 %	4
6 Other	3.78 %	13

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

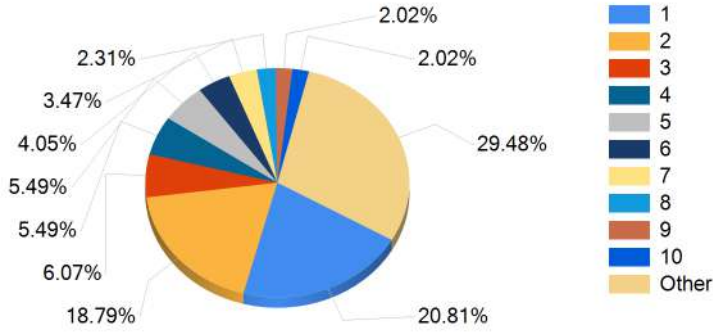


	Choice	Response Percent	Response Total
1	<18	0.87 %	3
2	18-24	19.71 %	68
3	25-34	26.09 %	90
4	35-49	19.13 %	66
5	50-64	22.03 %	76
6	65 or older	12.17 %	42

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>

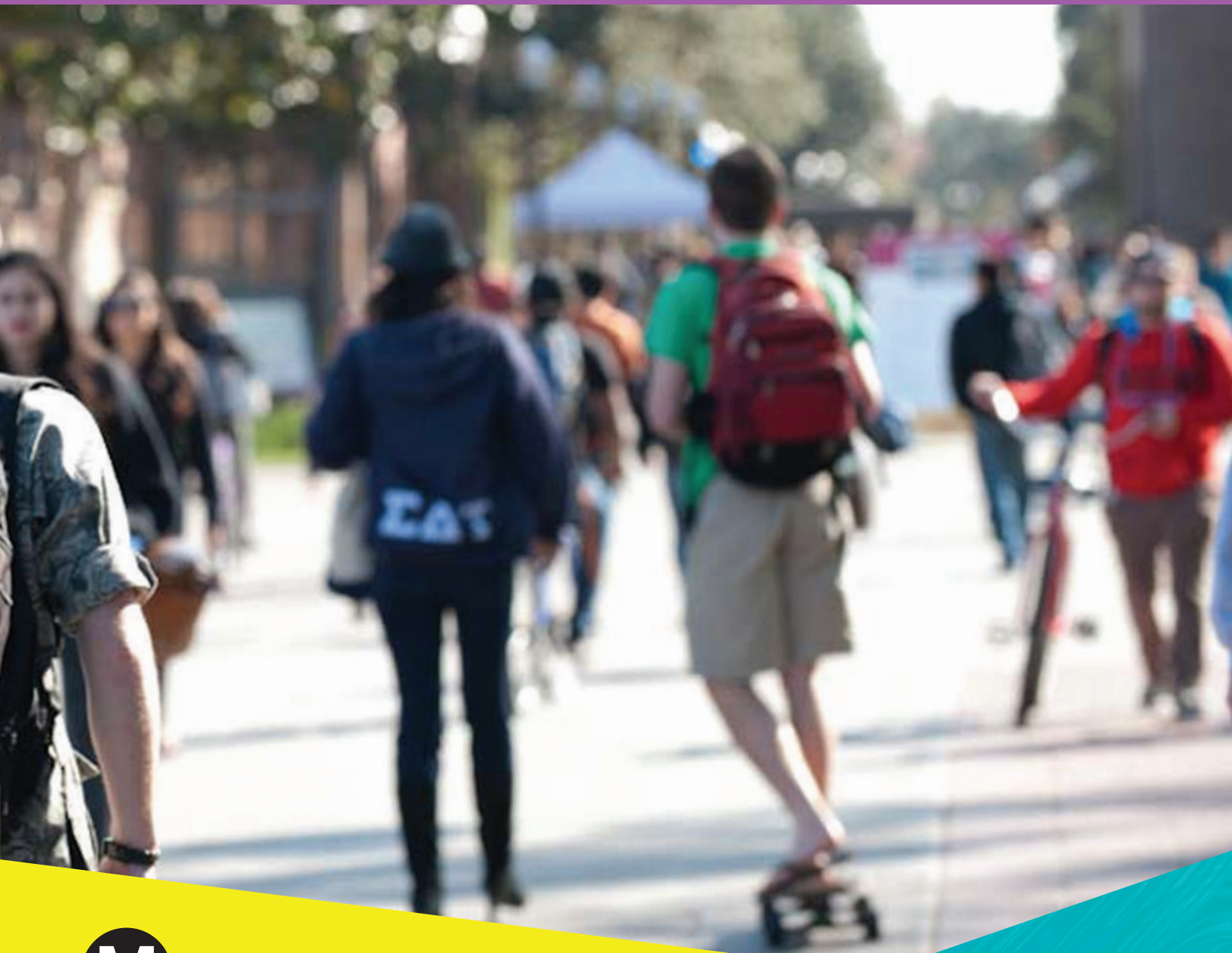
Other comments:

- 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

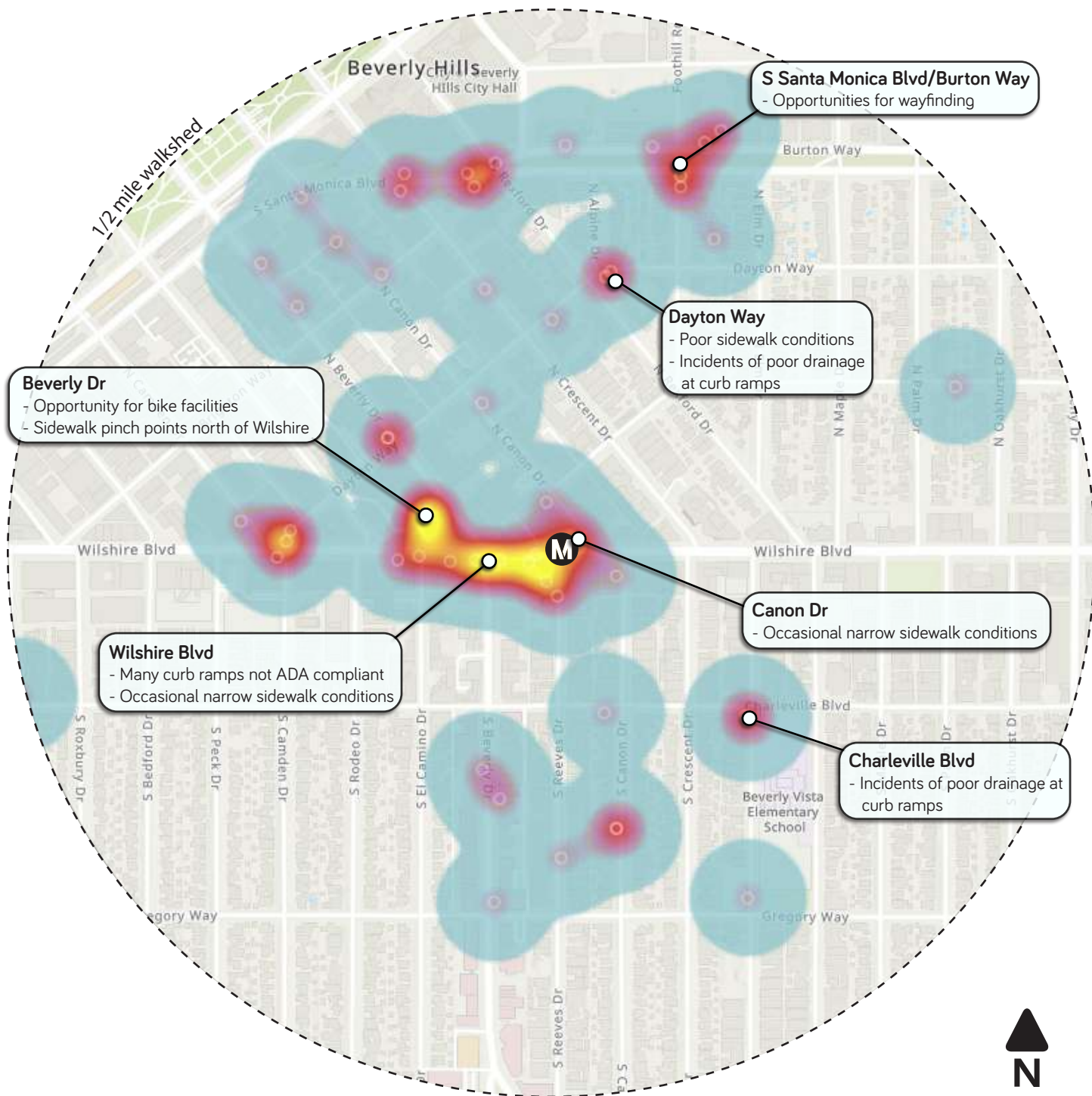
- Bicycle Conditions
- Maintenance
- Sidewalks
- Signage

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

Charleville Blvd
 - Incidents of poor drainage at curb ramps

S Santa Monica Blvd/Burton Way
 - Opportunities for wayfinding

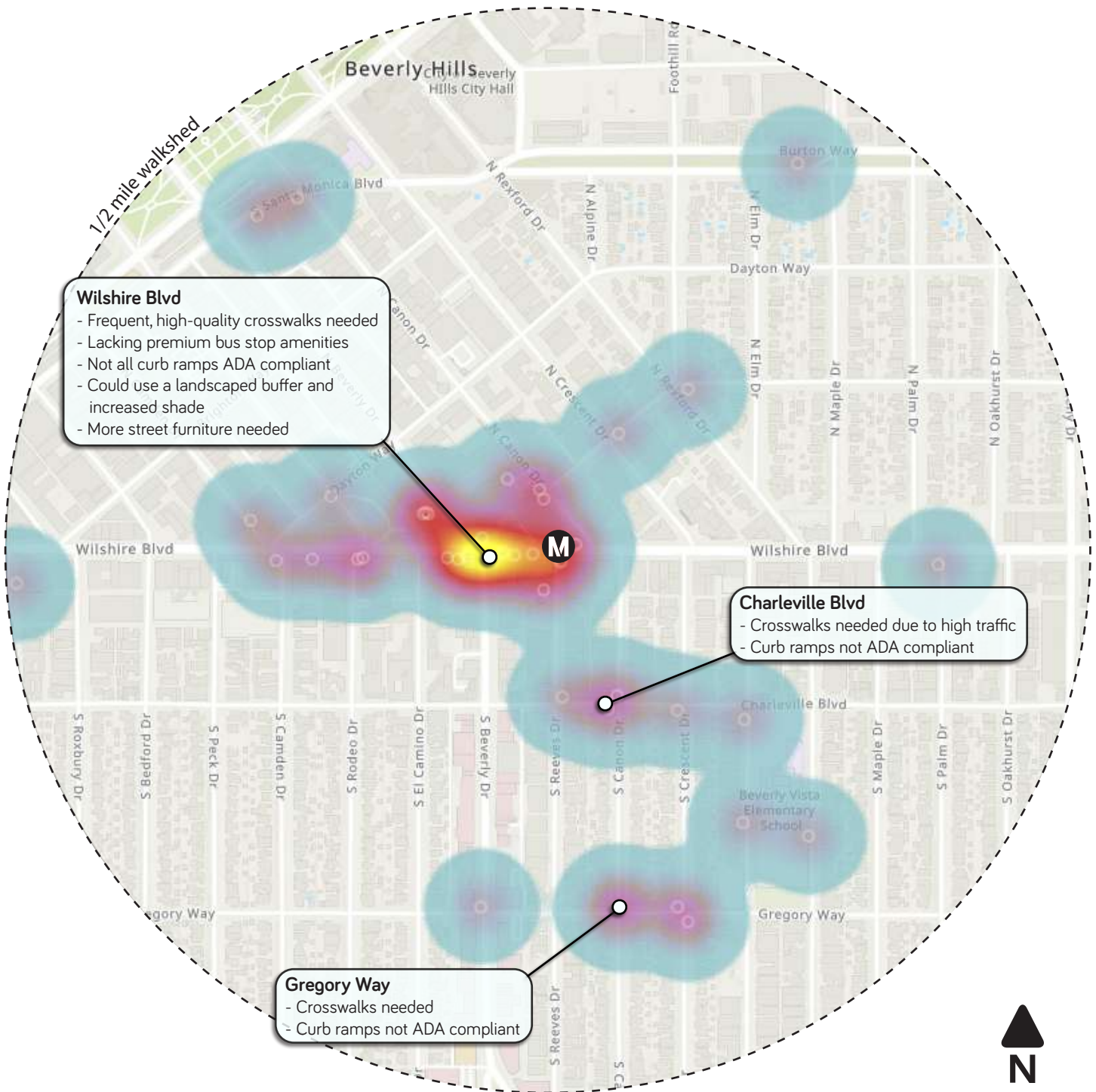
Total Observations - 57

- Sidewalks - 53% of observations
- Bike Conditions - 23% of observations
- Wayfinding - 19% of observations
- Maintenance - 5% of observation

Density of observations

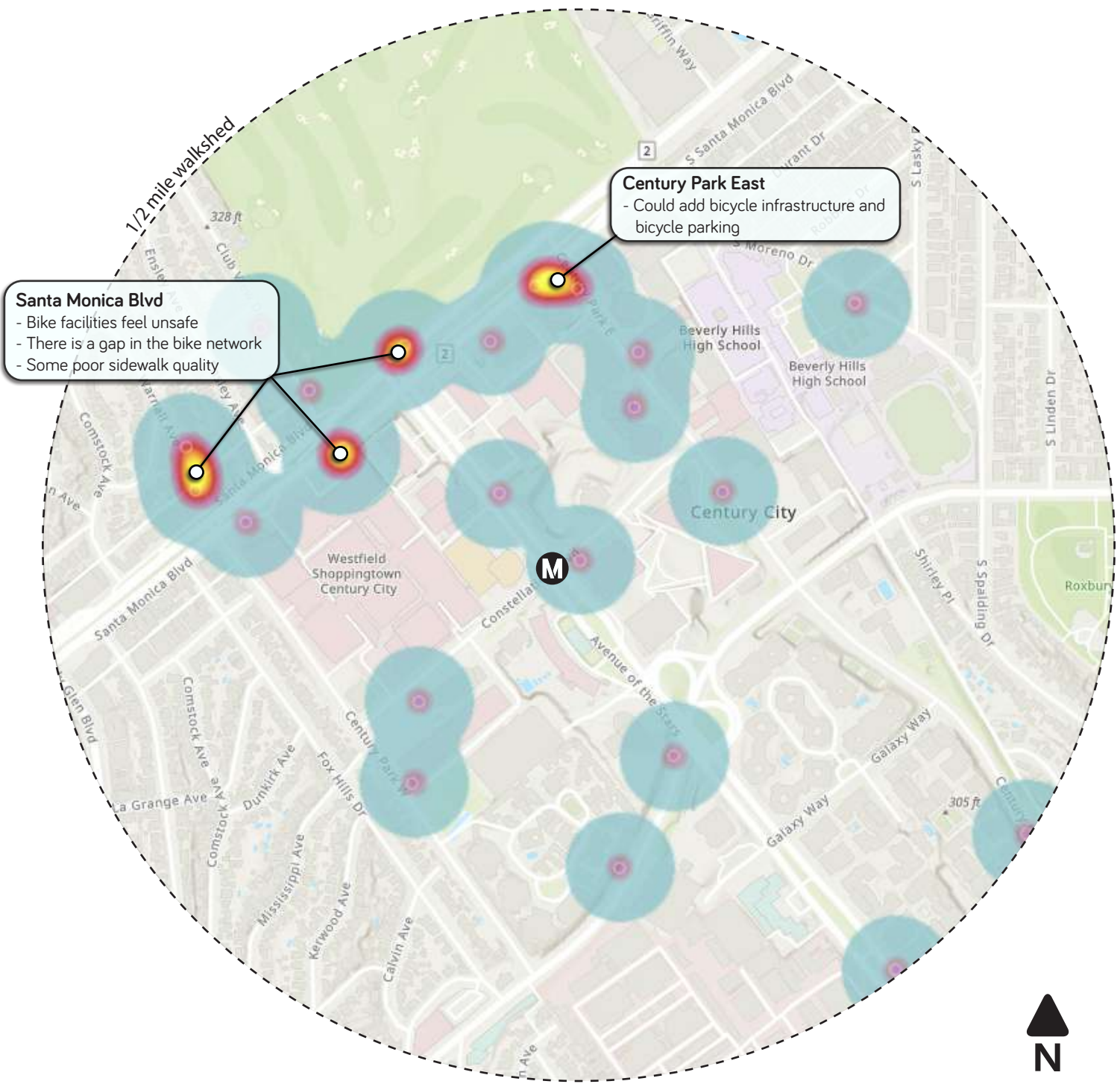


○ Key Observations



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



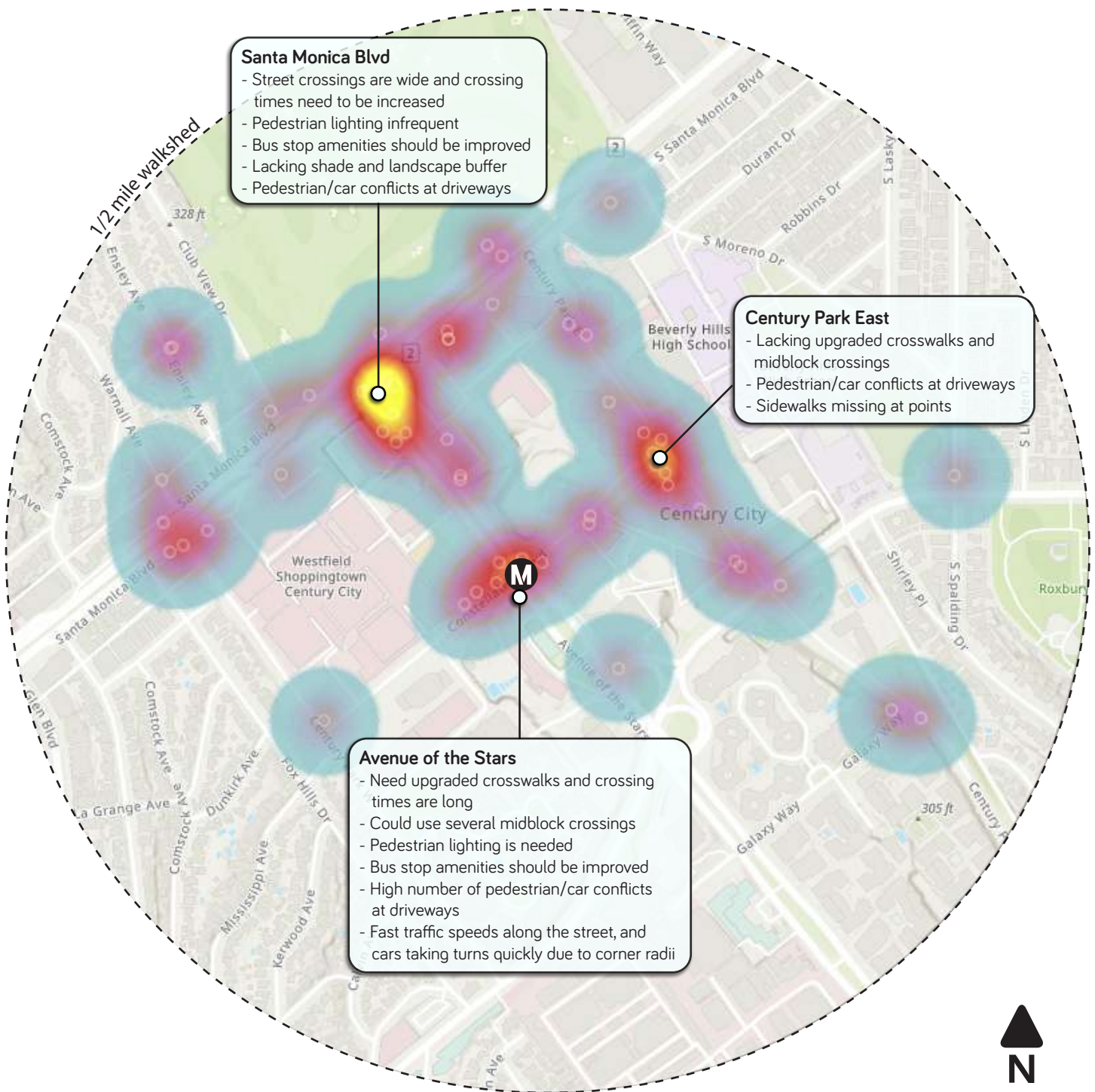
Total Observations - 29

- Sidewalks - 55% of observations
- Bike Conditions - 31% of observations
- Wayfinding - 10% of observations
- Maintenance - 4% of observations

Density of observations



○ Key Observations

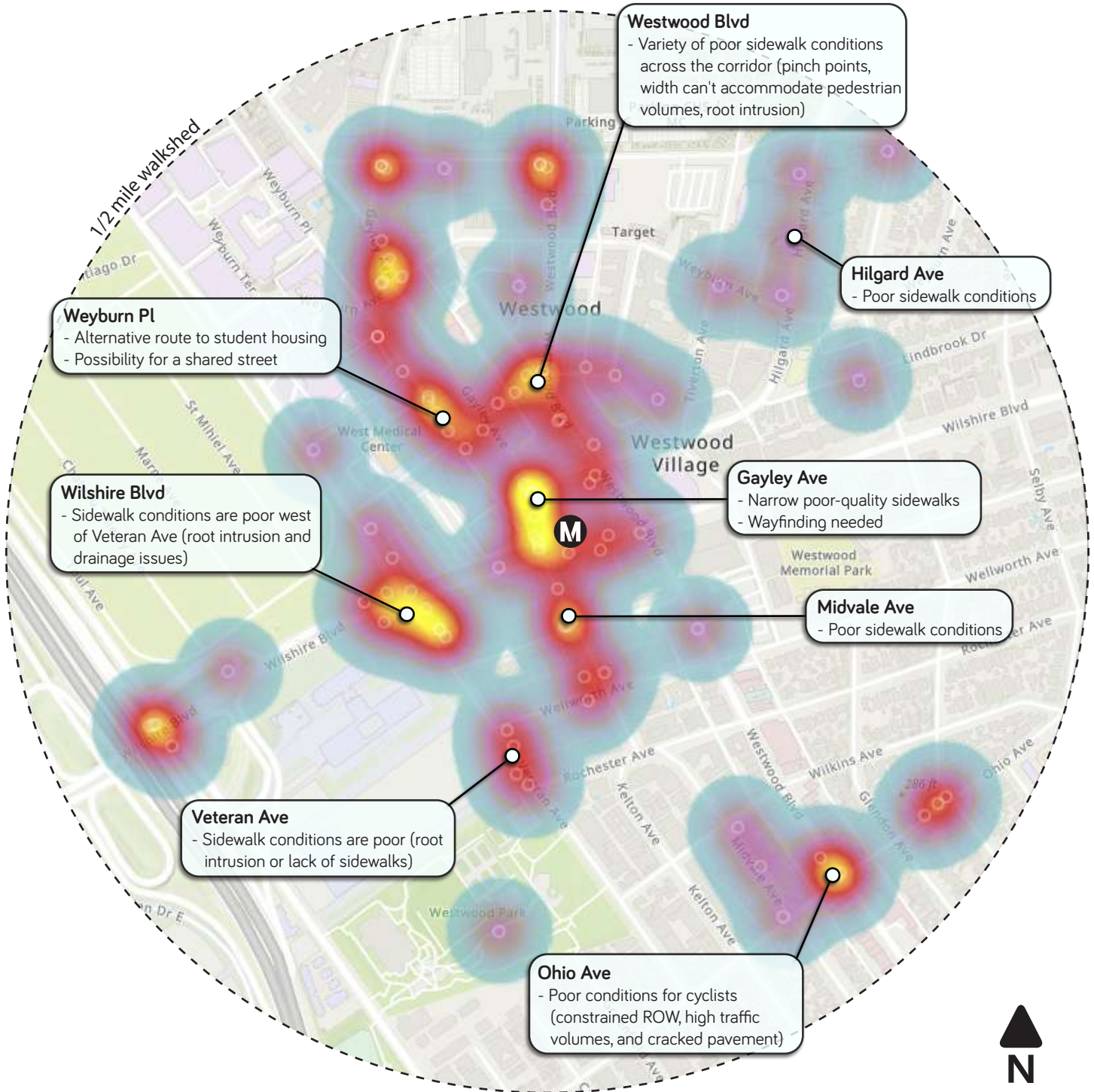


Total Observations - 56

- 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



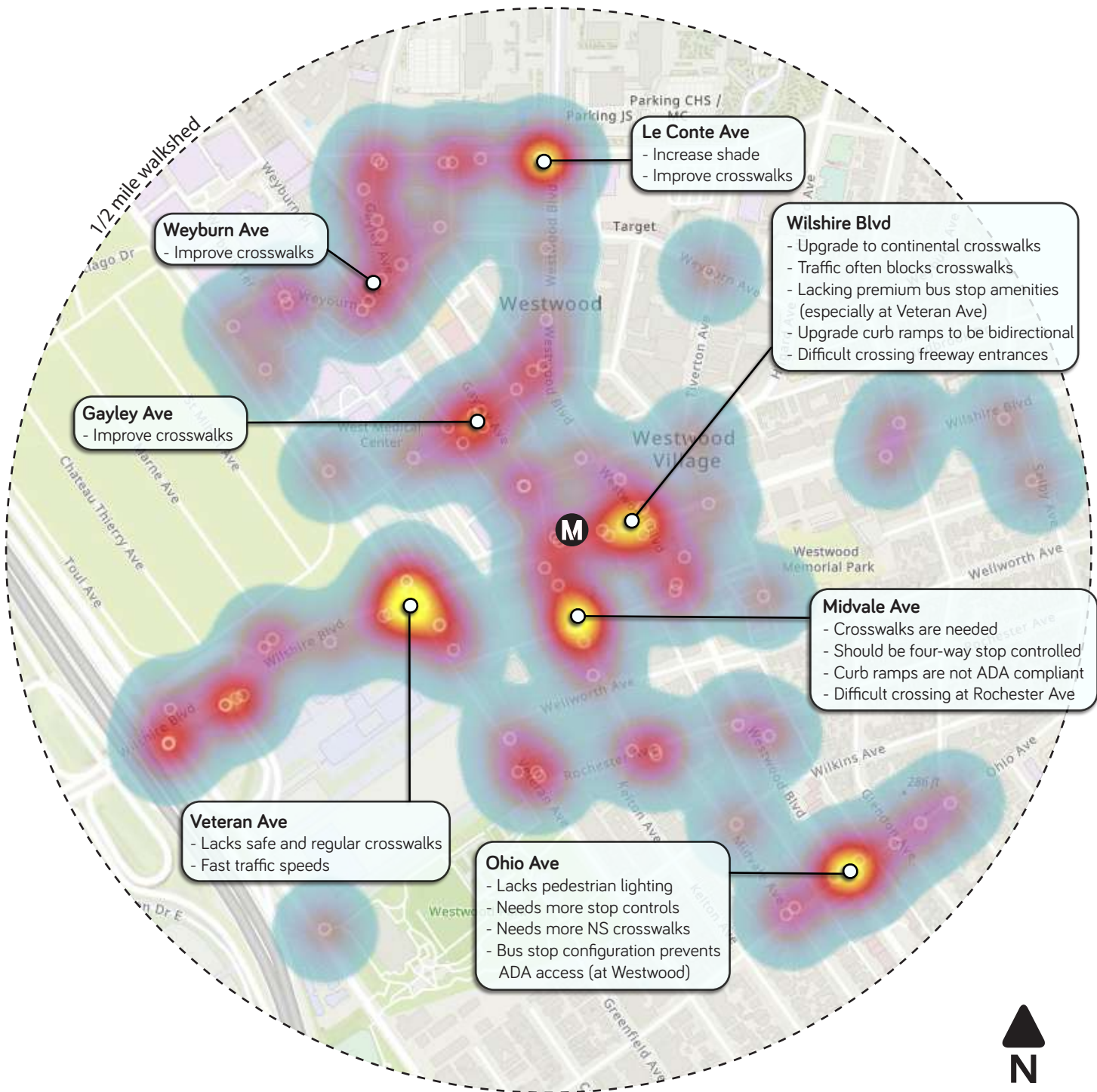


Total Observations - 96

- Sidewalks - 70% of observations
- Bike Conditions - 18% of observations
- Maintenance - 7% of observation
- Wayfinding - 5% of observations

Density of observations





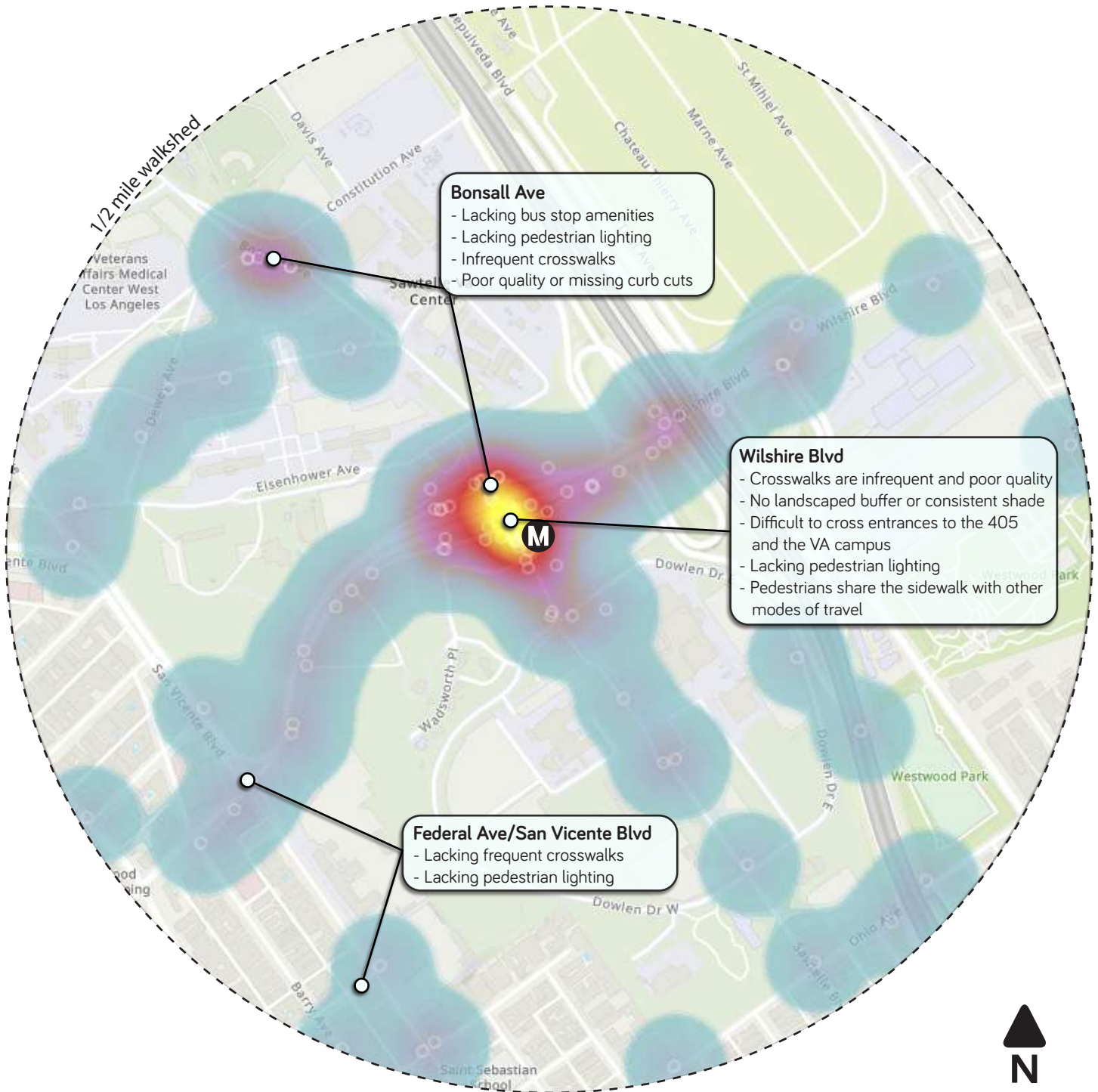
Total Observations - 111

- 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



○ 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.

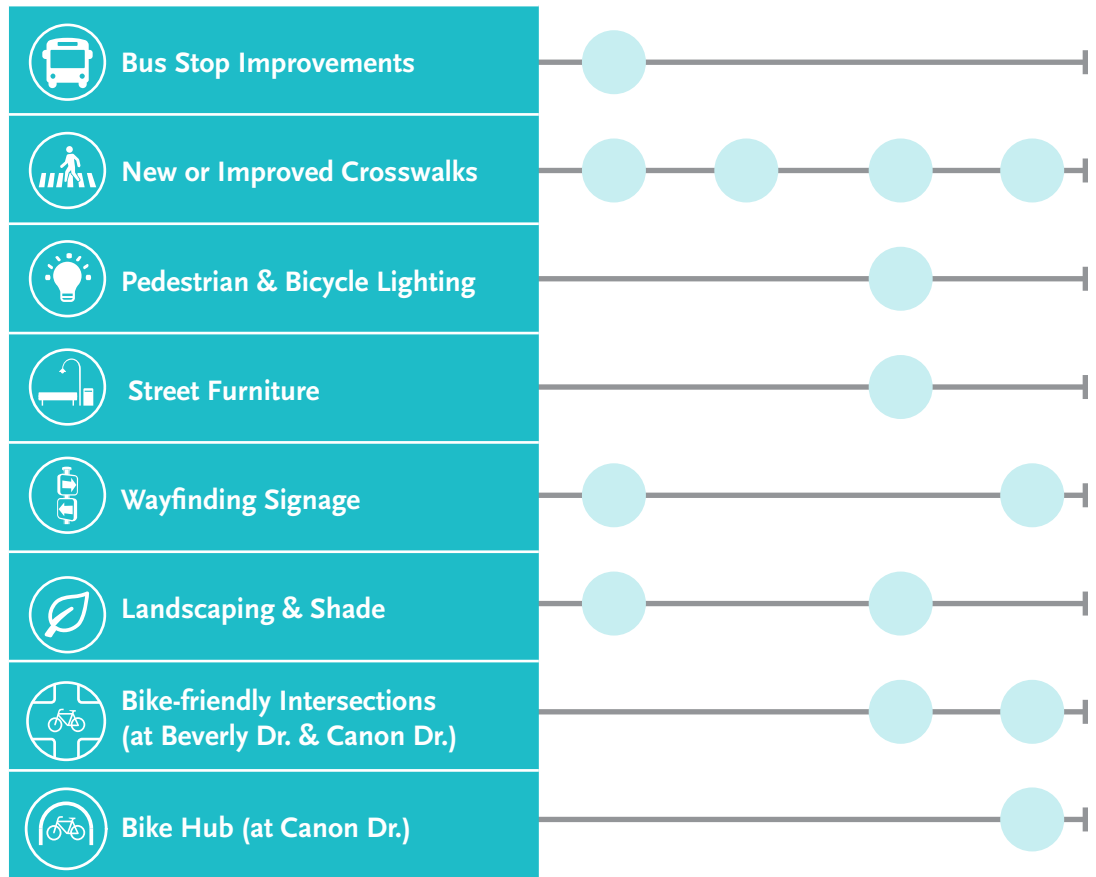
Technical Analysis was administered by planning professionals to highlight specific improvements that would enhance the safety and ease of walking and biking within the station areas. Improvements chosen through technical analysis either echo the public's input on necessary improvements, or fill in the 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.

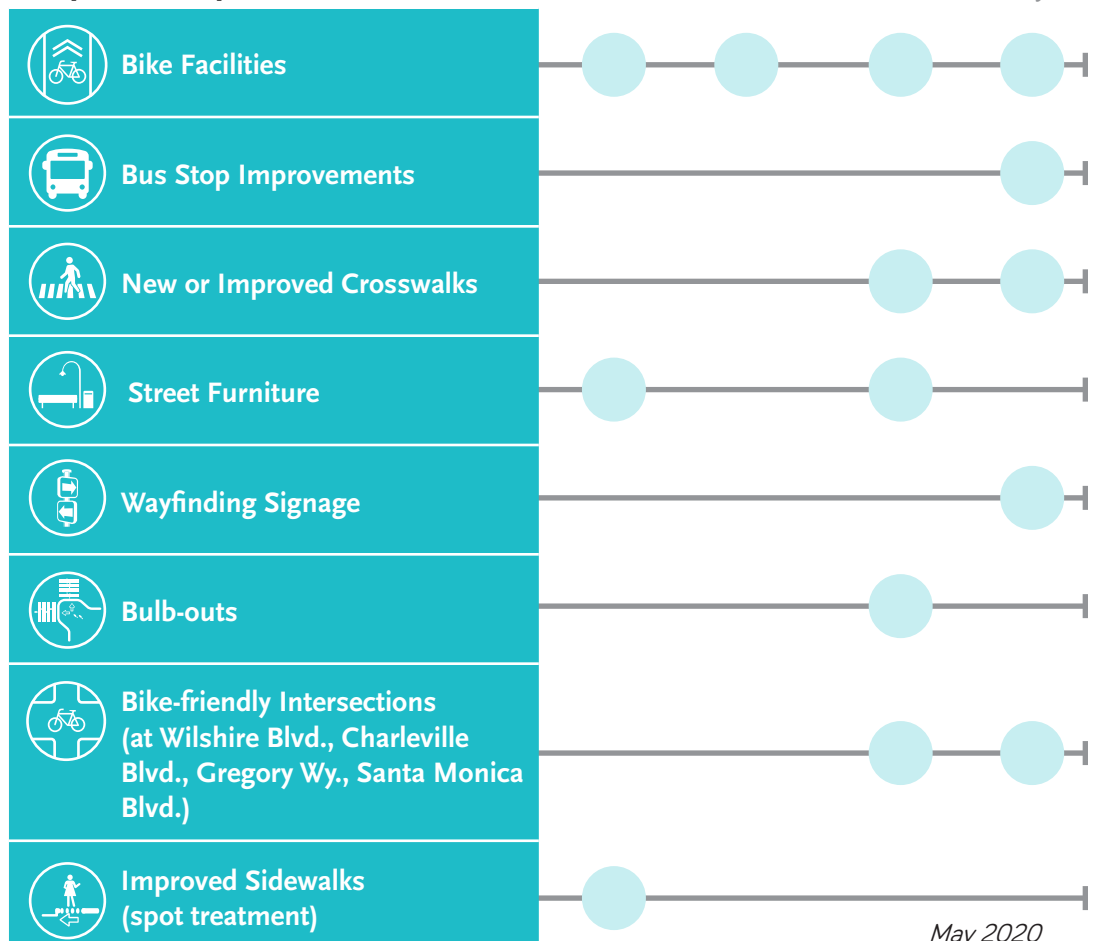
Proposed Improvements



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

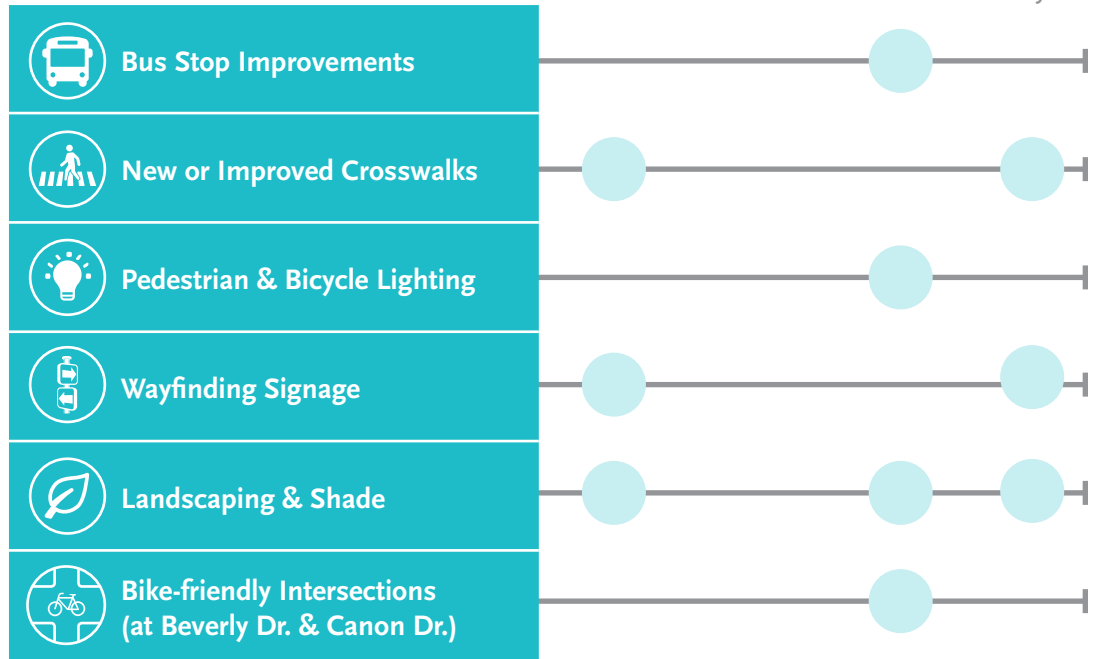


WILSHIRE/RODEO

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.

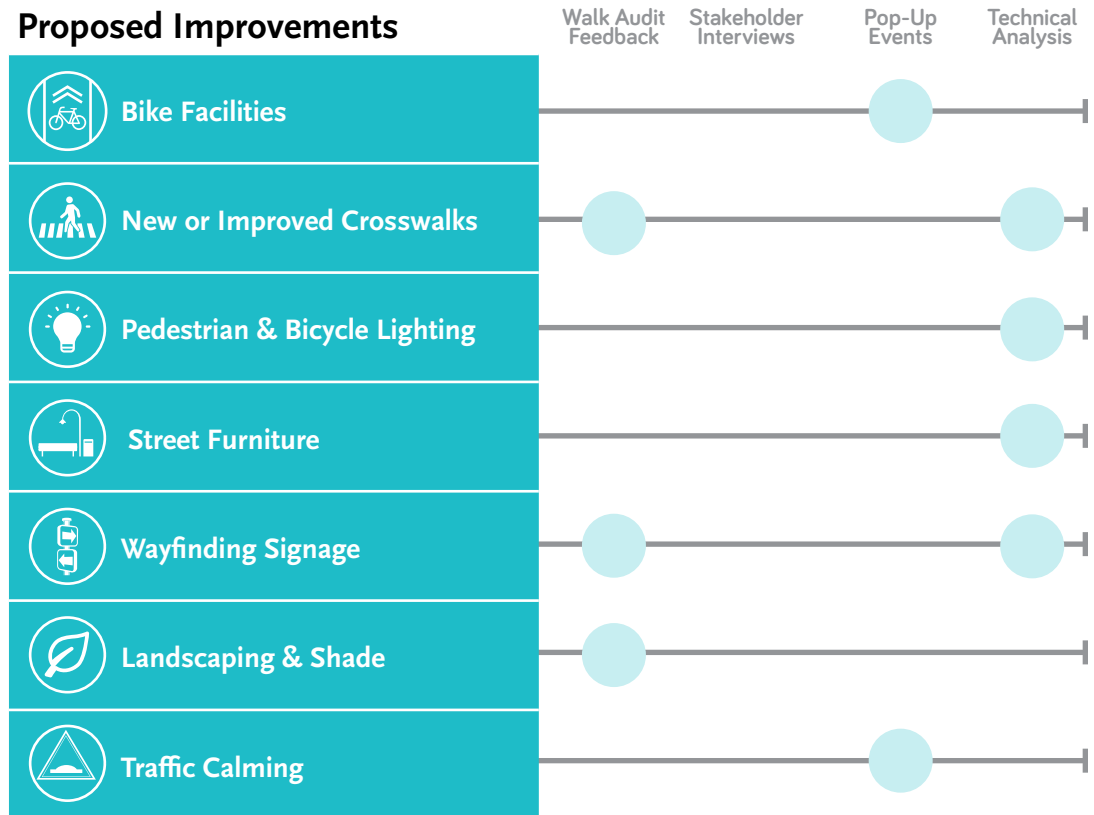
Proposed Improvements



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

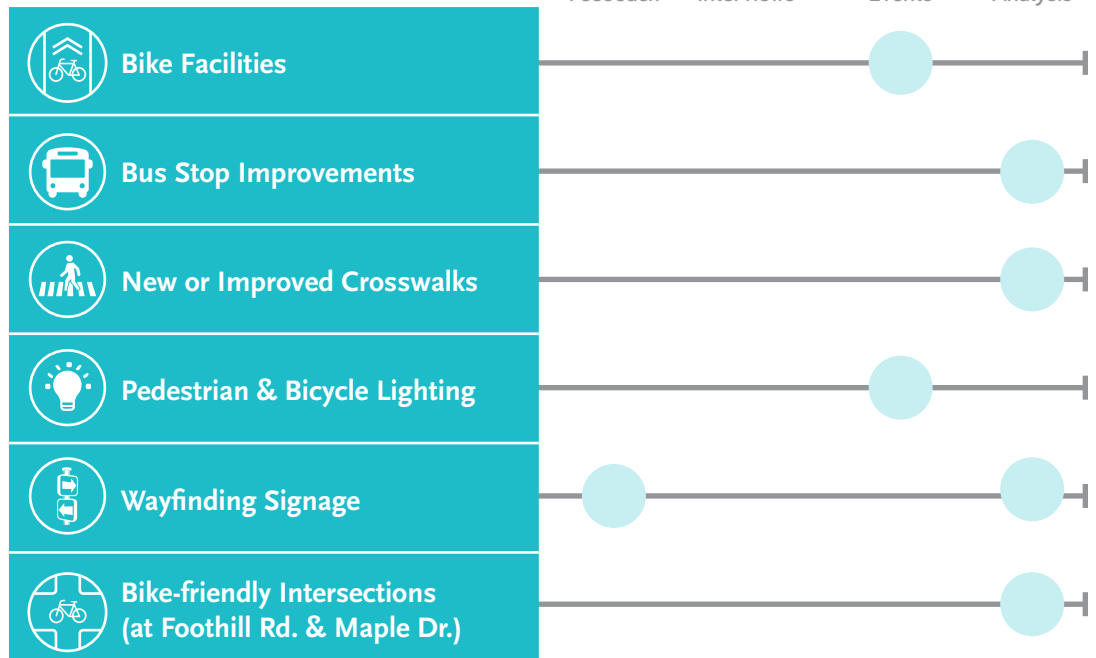


WILSHIRE/RODEO

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.

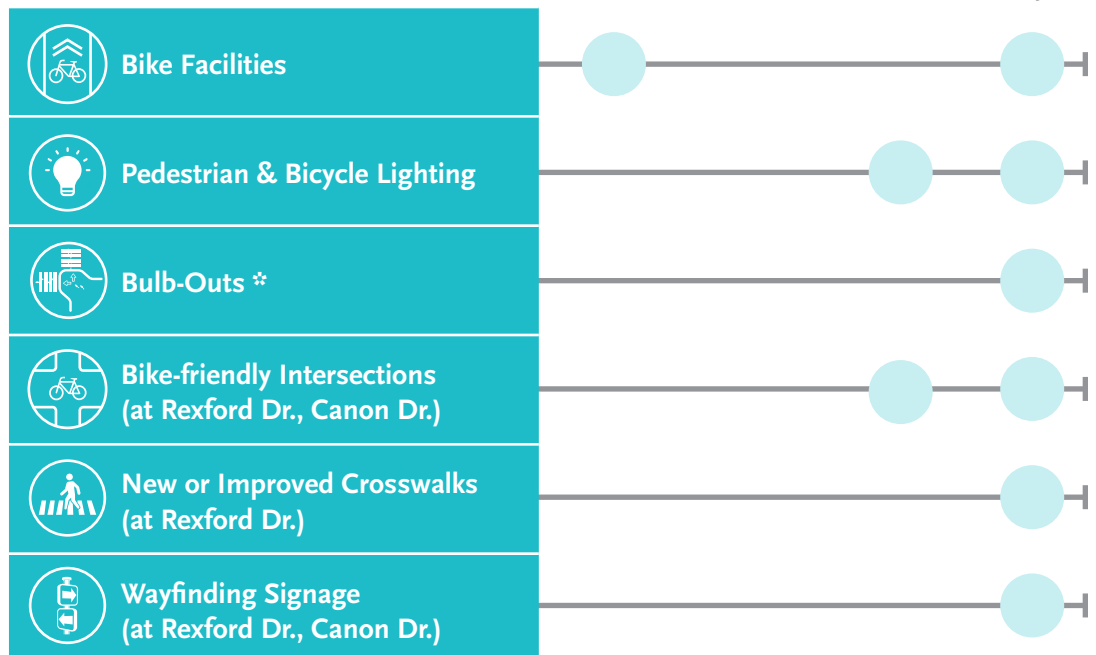
Proposed Improvements



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

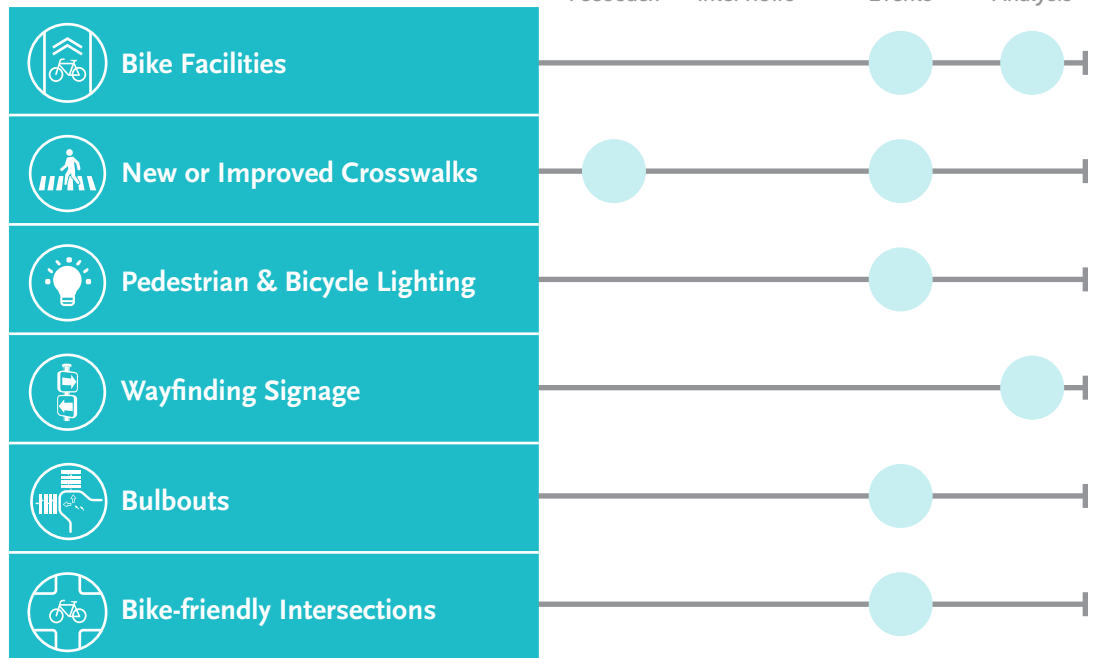


WILSHIRE/RODEO

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.

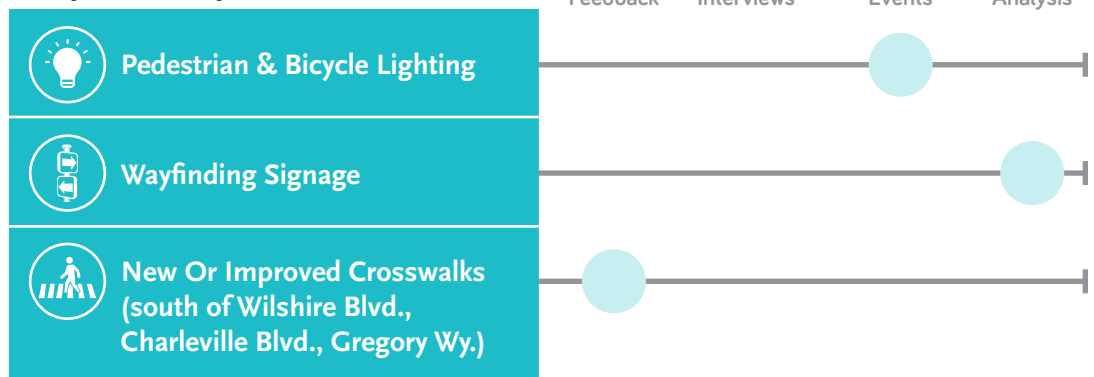
Proposed Improvements



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

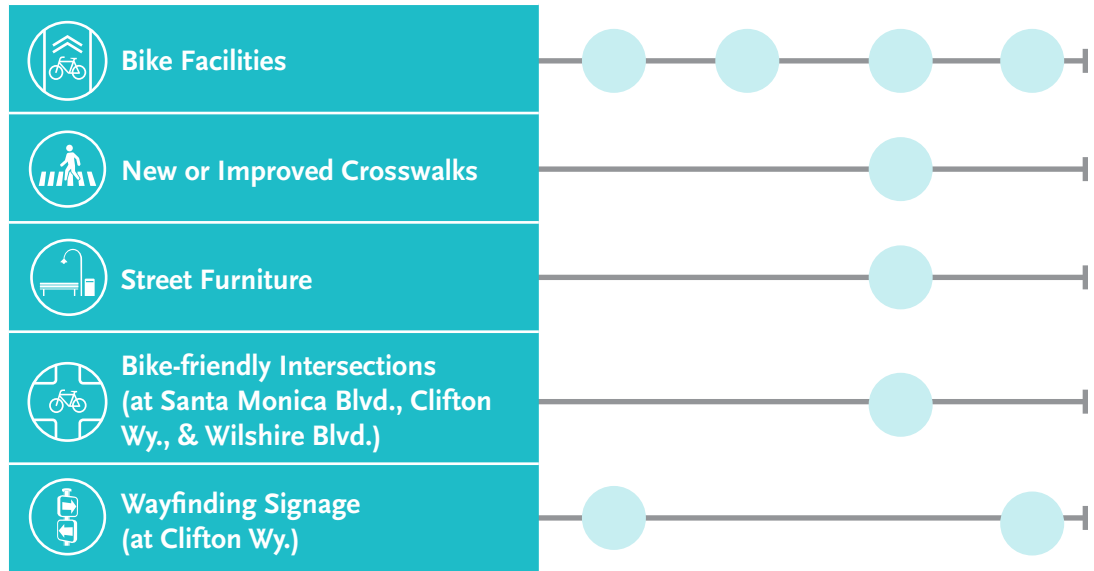


WILSHIRE/RODEO

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.

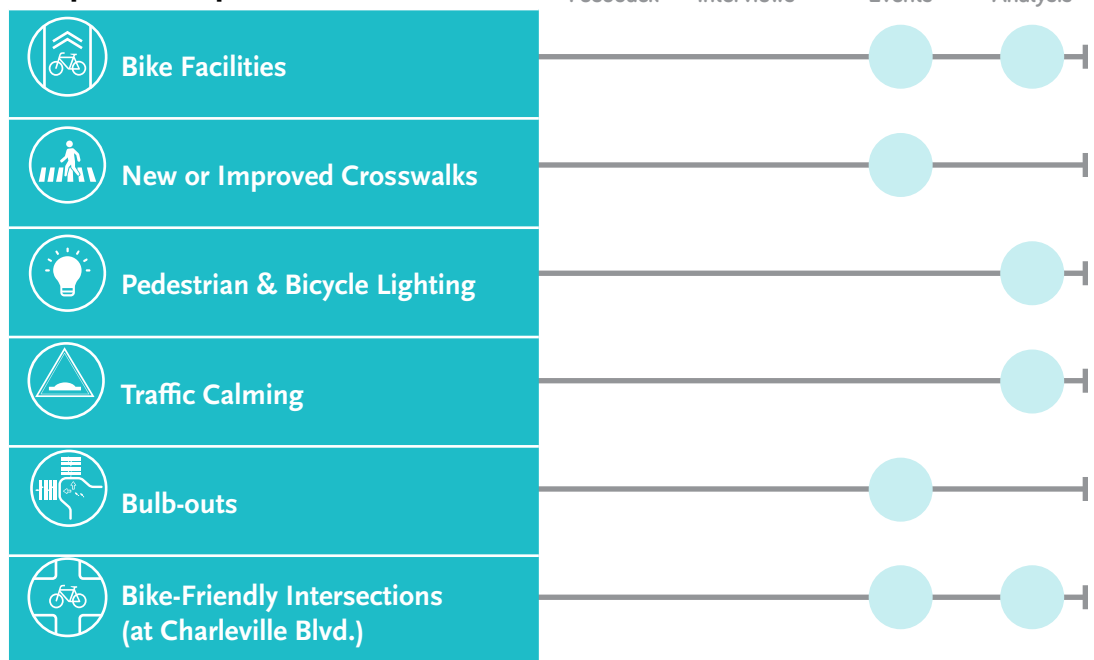
Proposed Improvements



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.

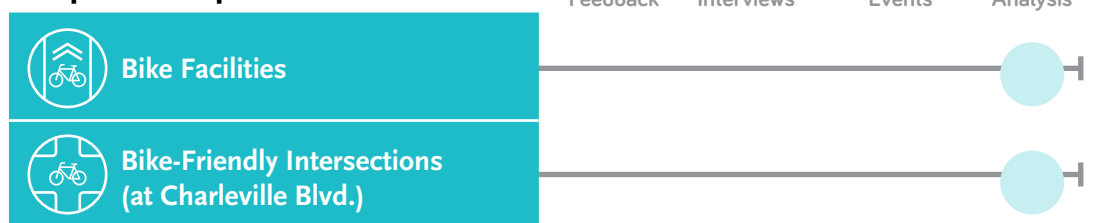
Proposed Improvements



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

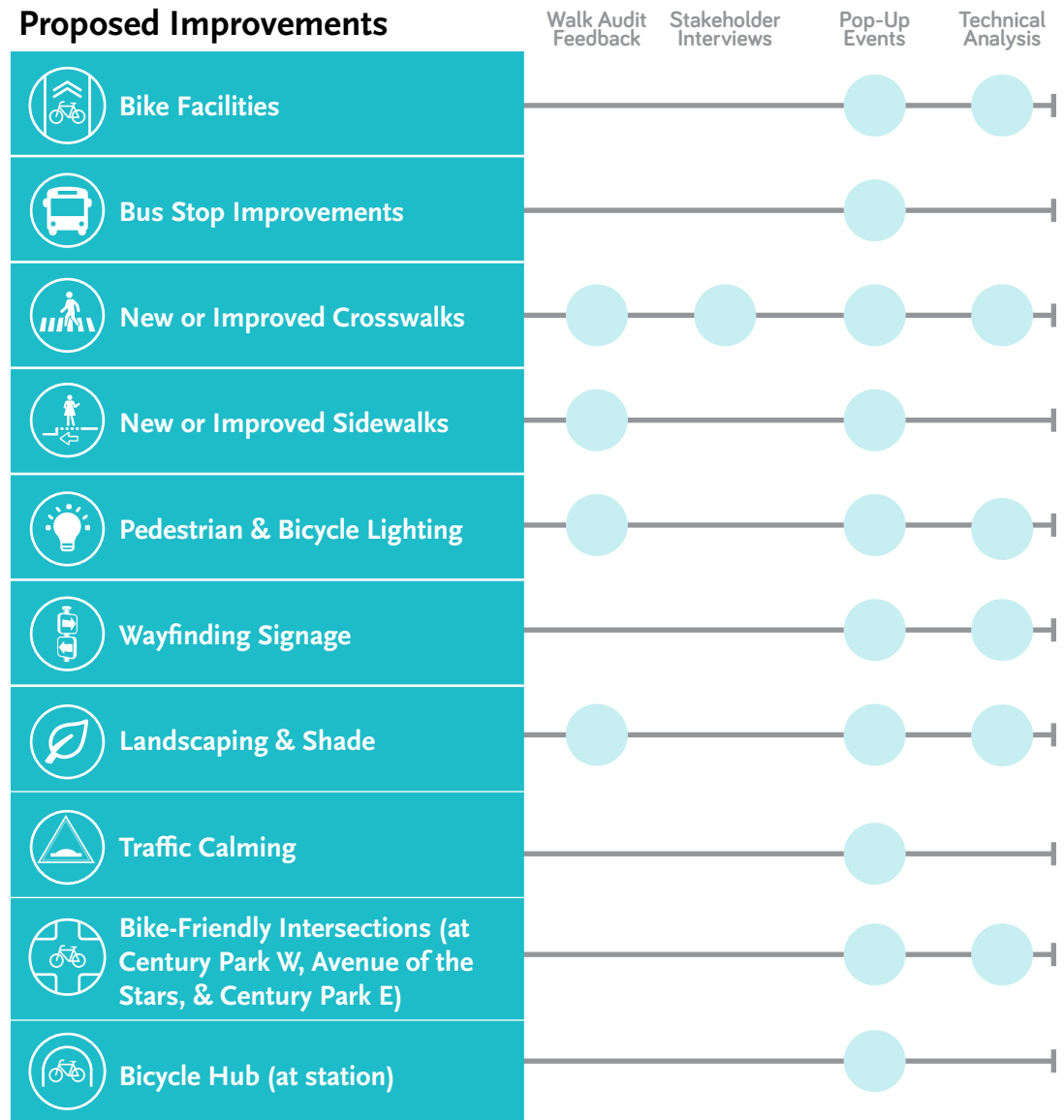


PROJECT ORIGINS CENTURY CITY/ CONSTELLATION

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

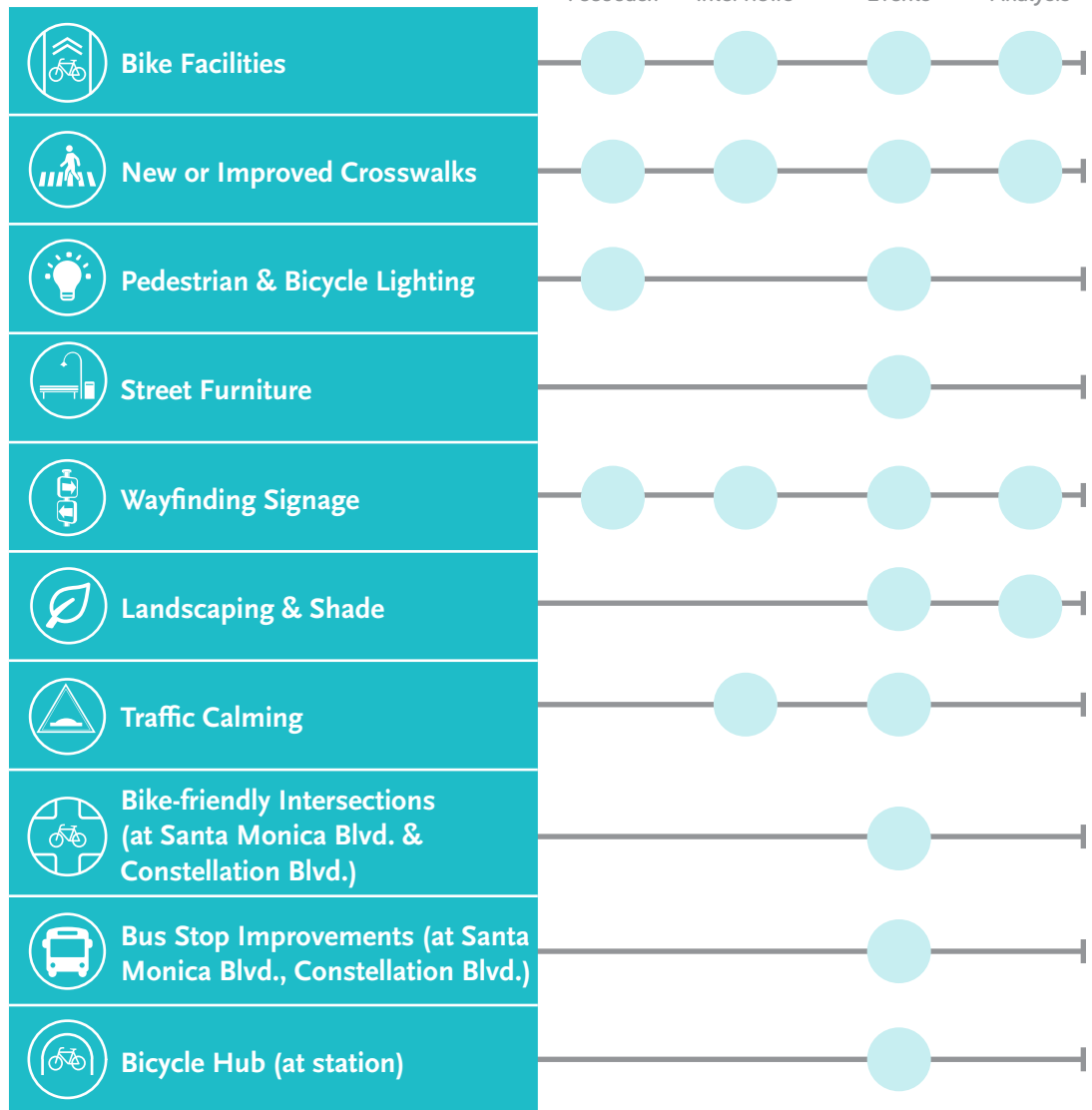


CENTURY CITY/CONSTELLATION

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.

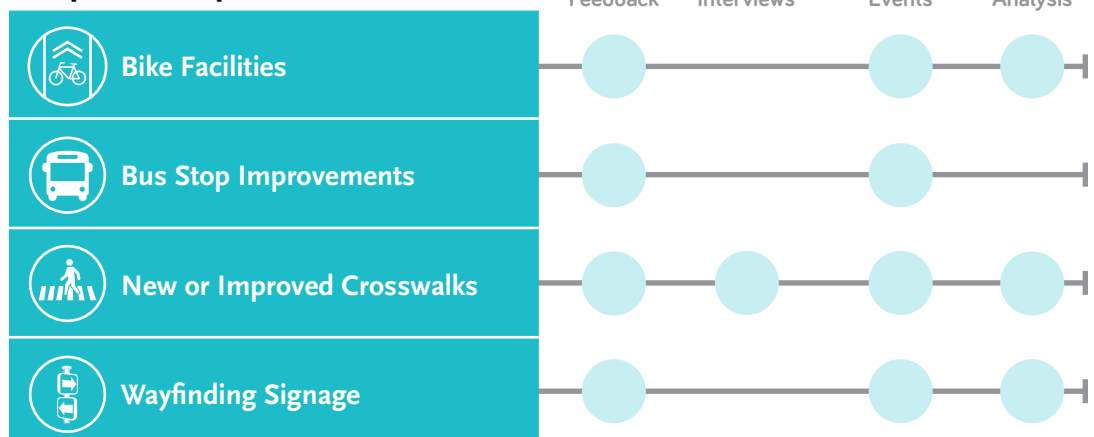
Proposed Improvements



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

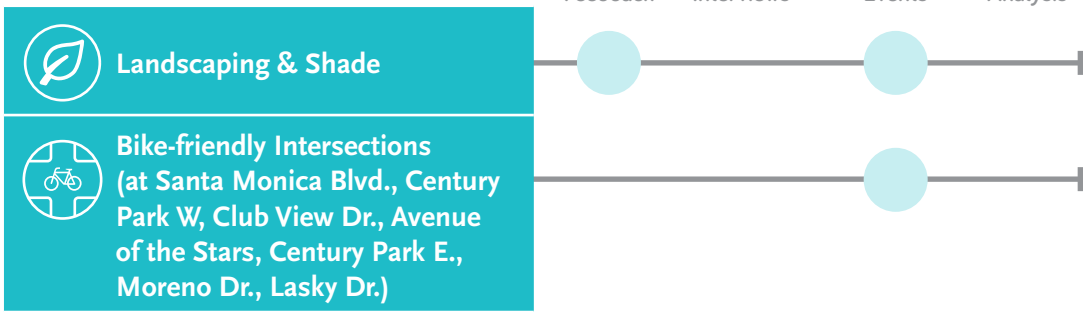


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CENTURY CITY/CONSTELLATION

Santa Monica Blvd. (cont'd)

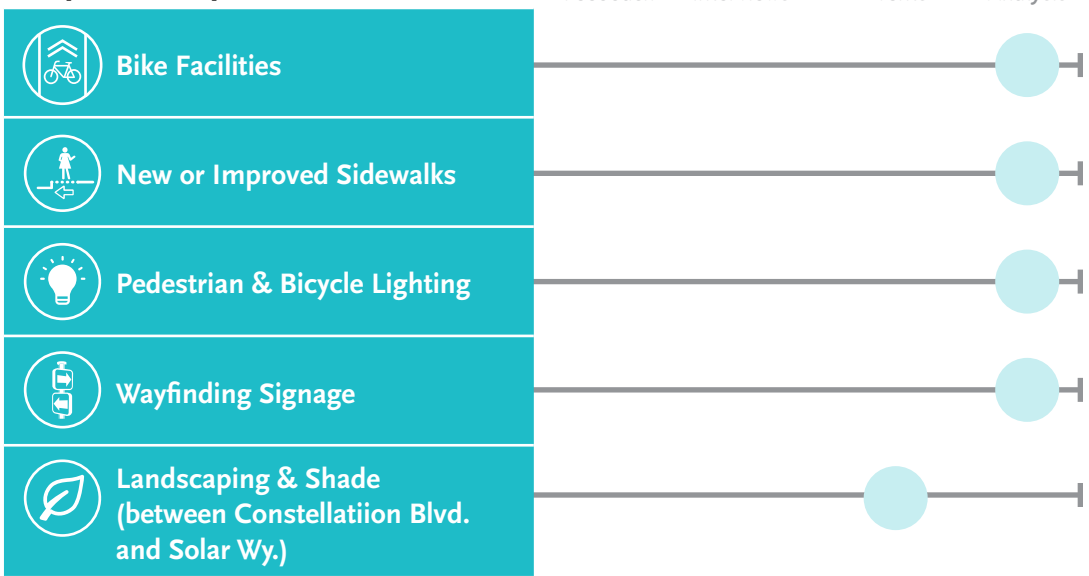
Proposed Improvements



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.

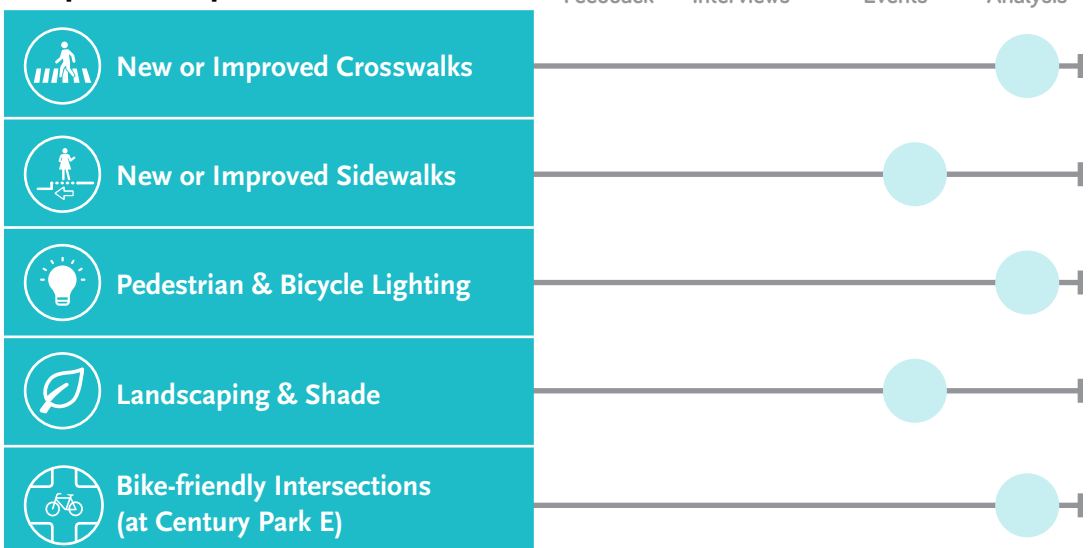
Proposed Improvements



Galaxy Way

Galaxy Wy. is a short street that connects Century Park E with Fox Studios and two large housing developments.

Proposed Improvements

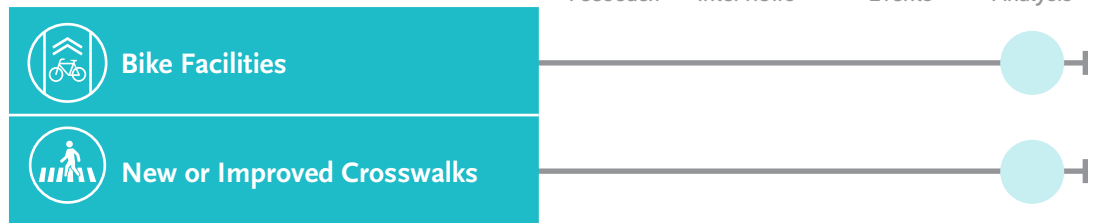


CENTURY CITY/CONSTELLATION

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.

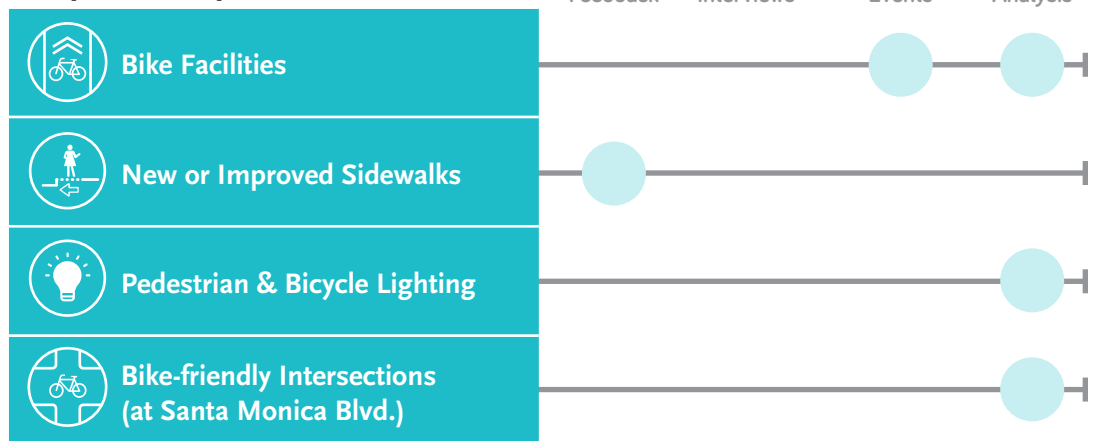
Proposed Improvements



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

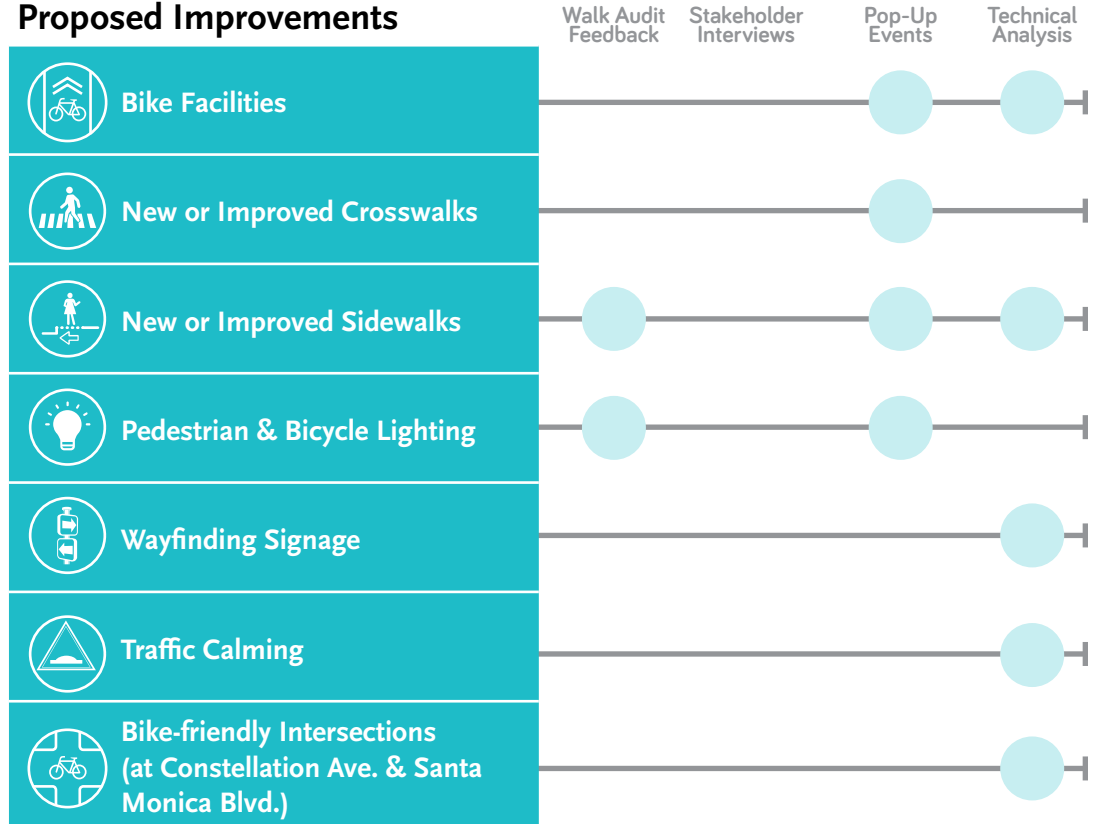


CENTURY CITY/CONSTELLATION

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.

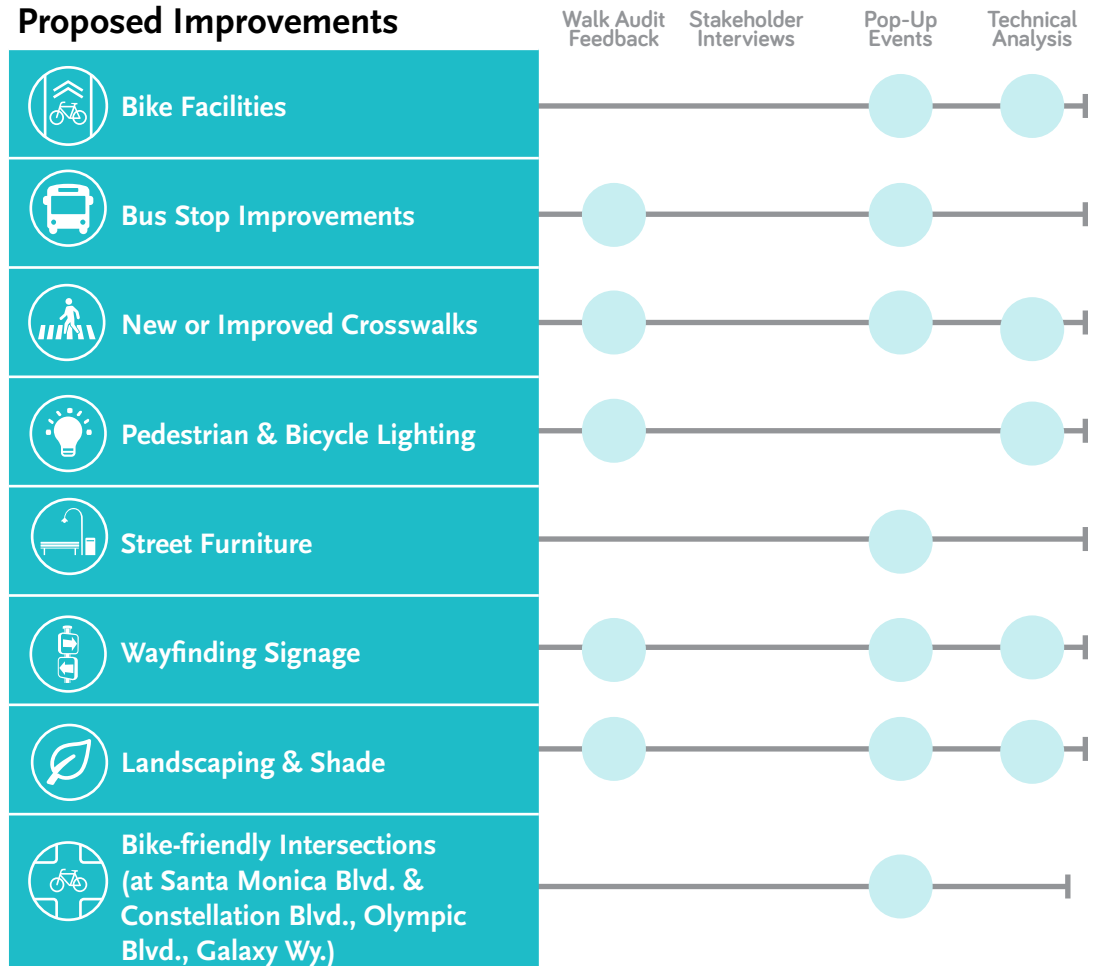
Proposed Improvements



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

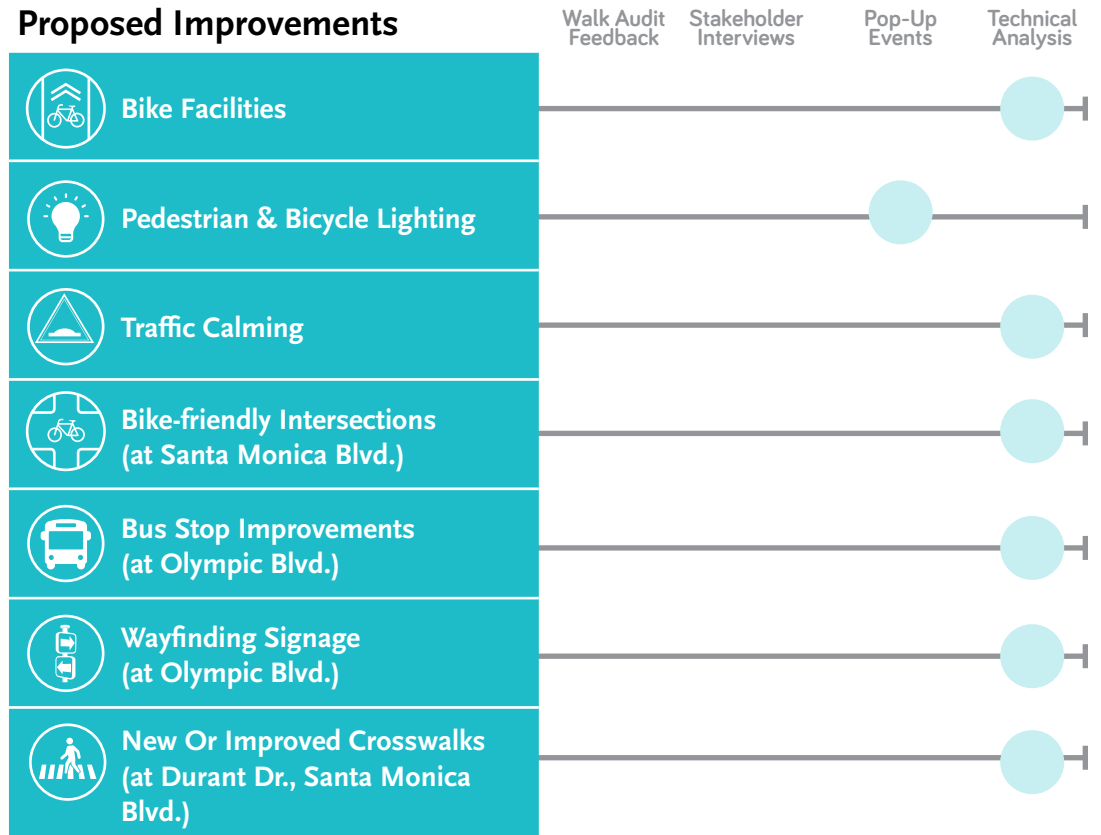


CENTURY CITY/CONSTELLATION

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

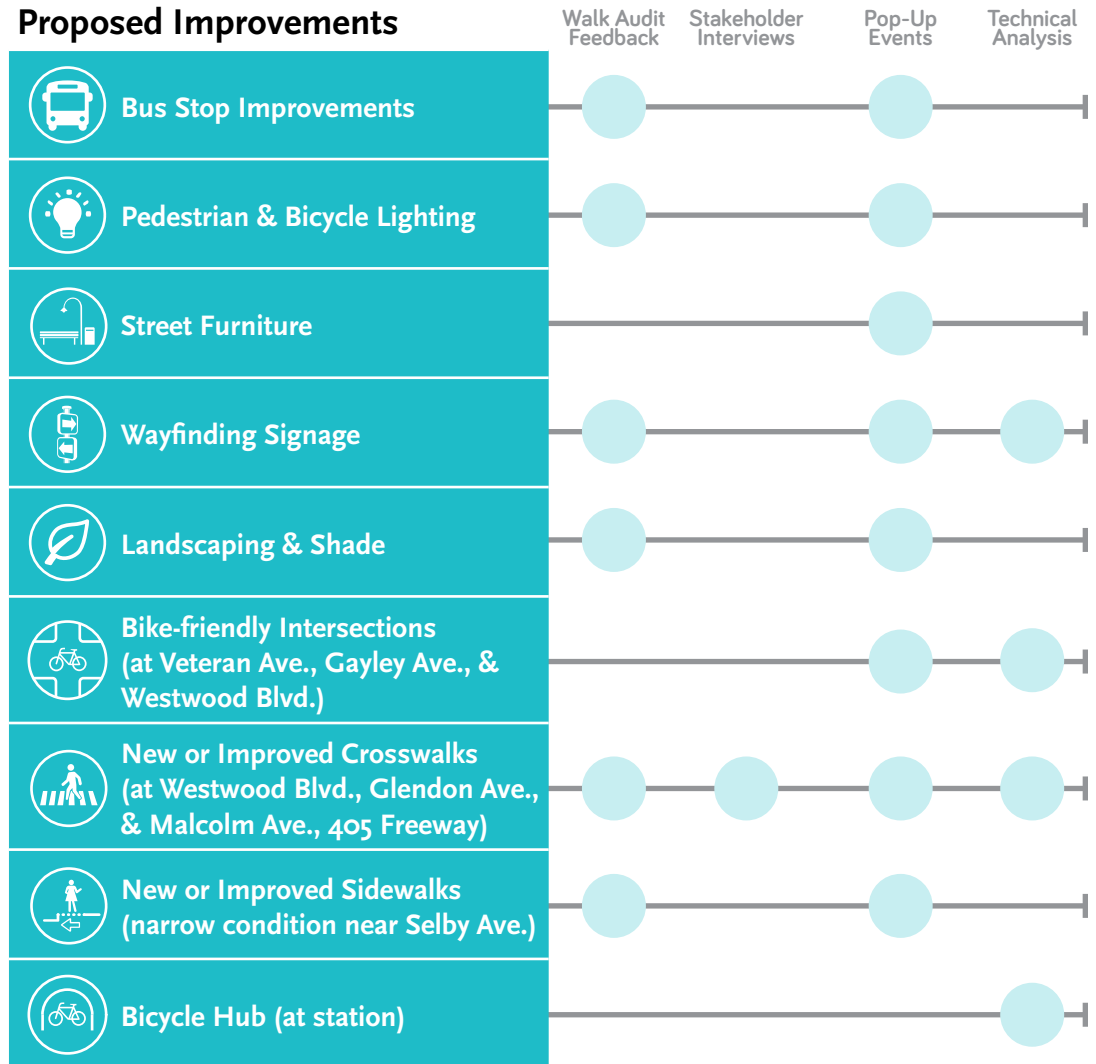


PROJECT ORIGINS WESTWOOD/UCLA

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.

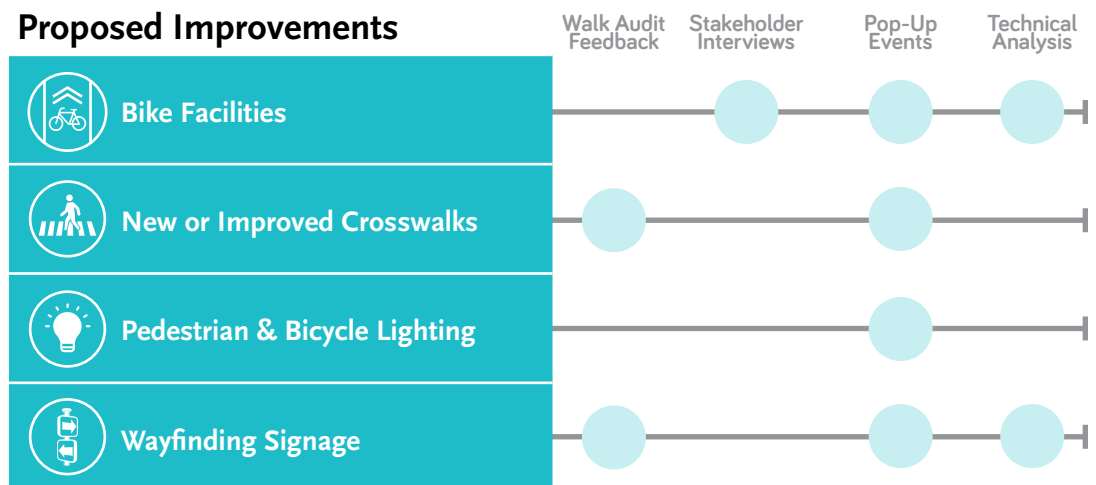
Proposed Improvements



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.

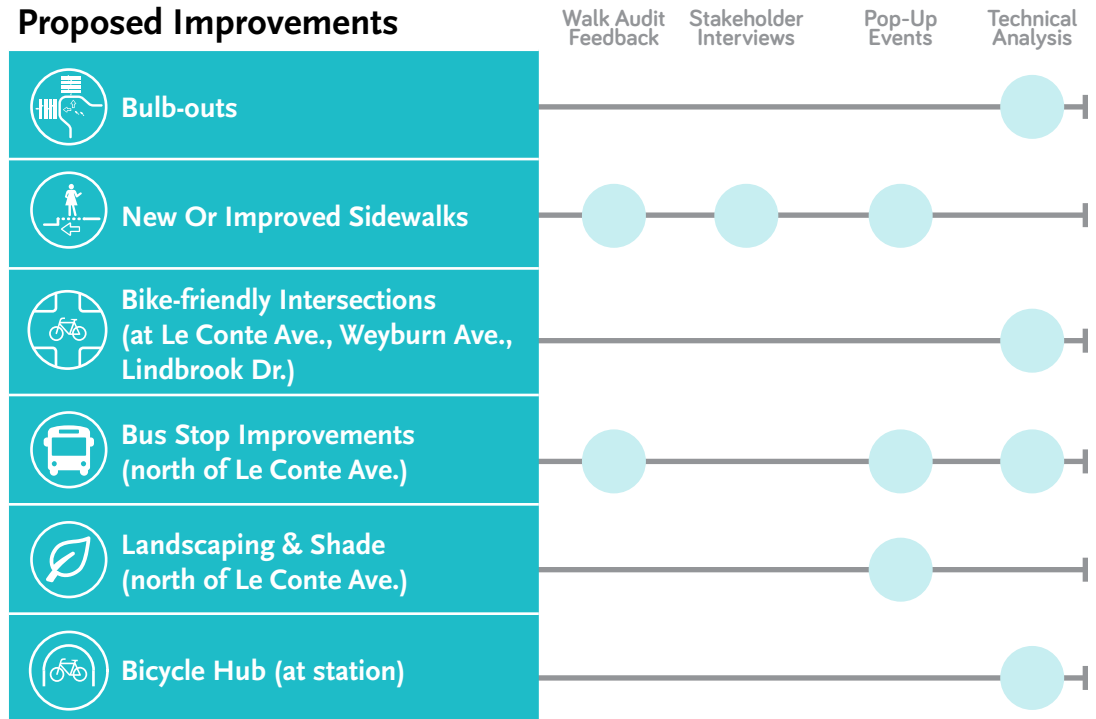
Proposed Improvements



WESTWOOD/UCLA

Gayley Ave. (cont'd)

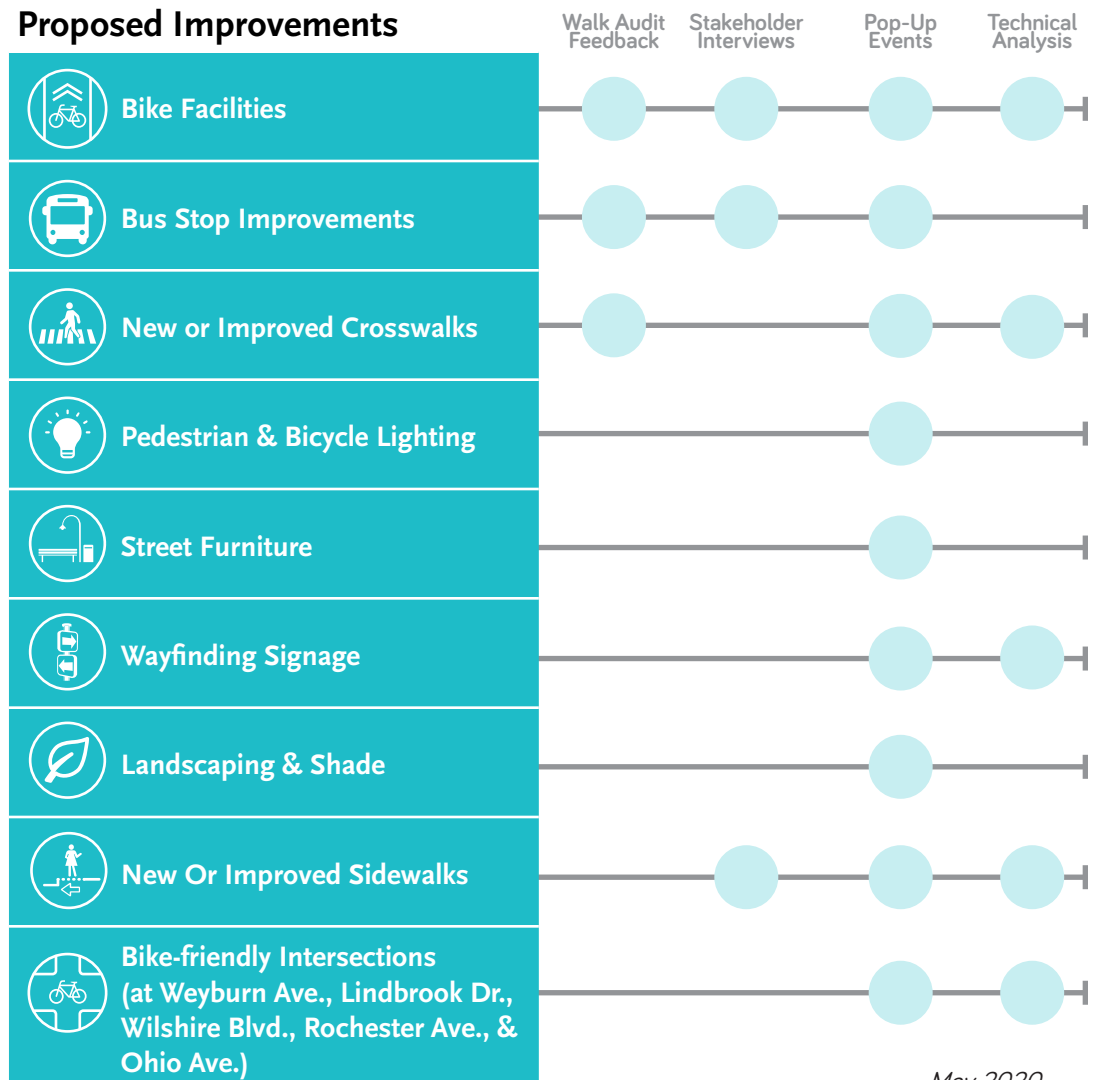
Proposed Improvements



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

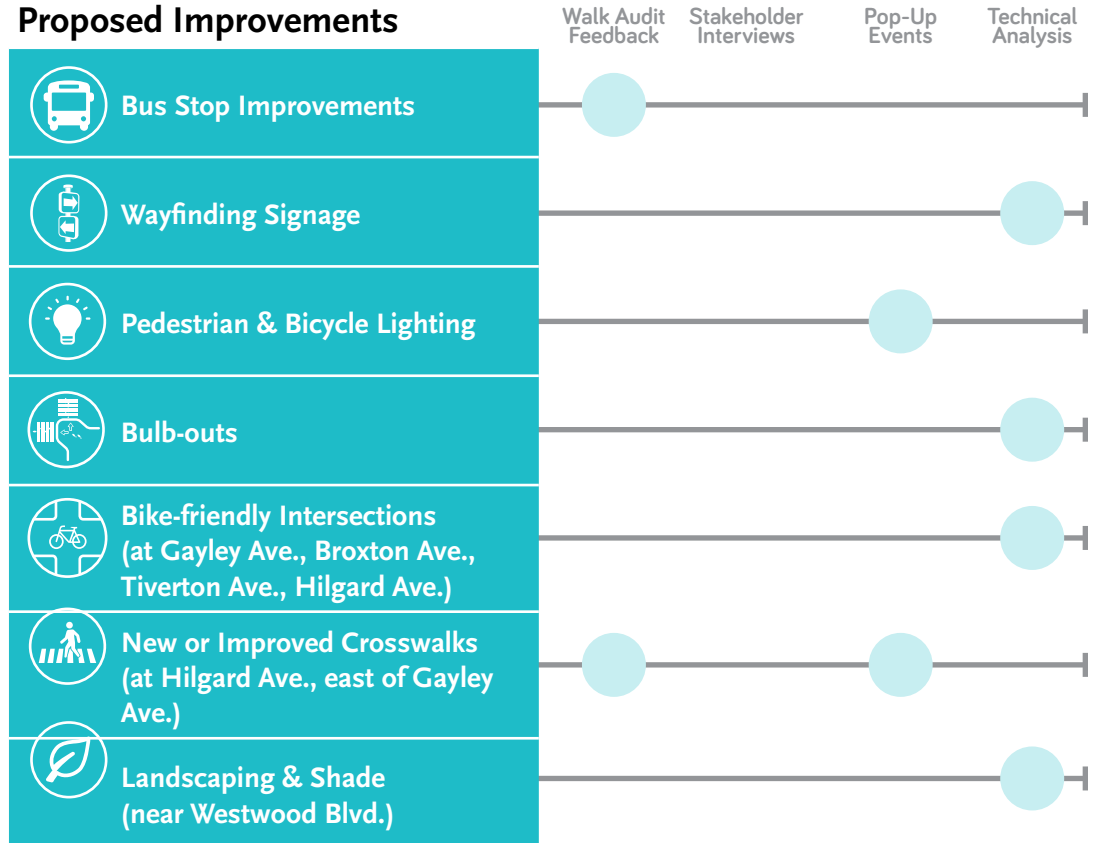


WESTWOOD/UCLA

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.

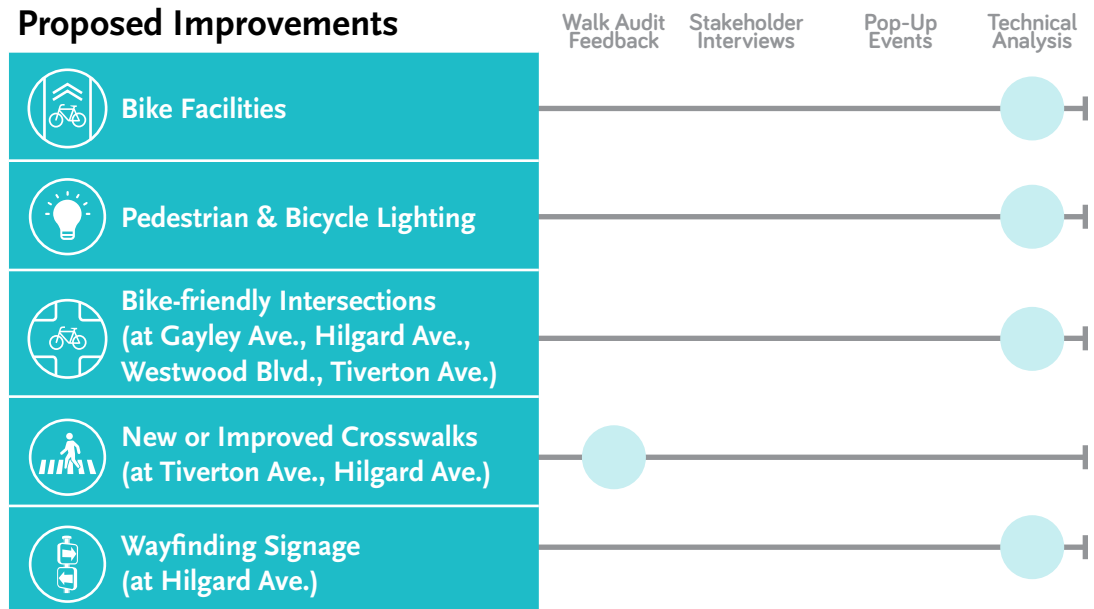
Proposed Improvements



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

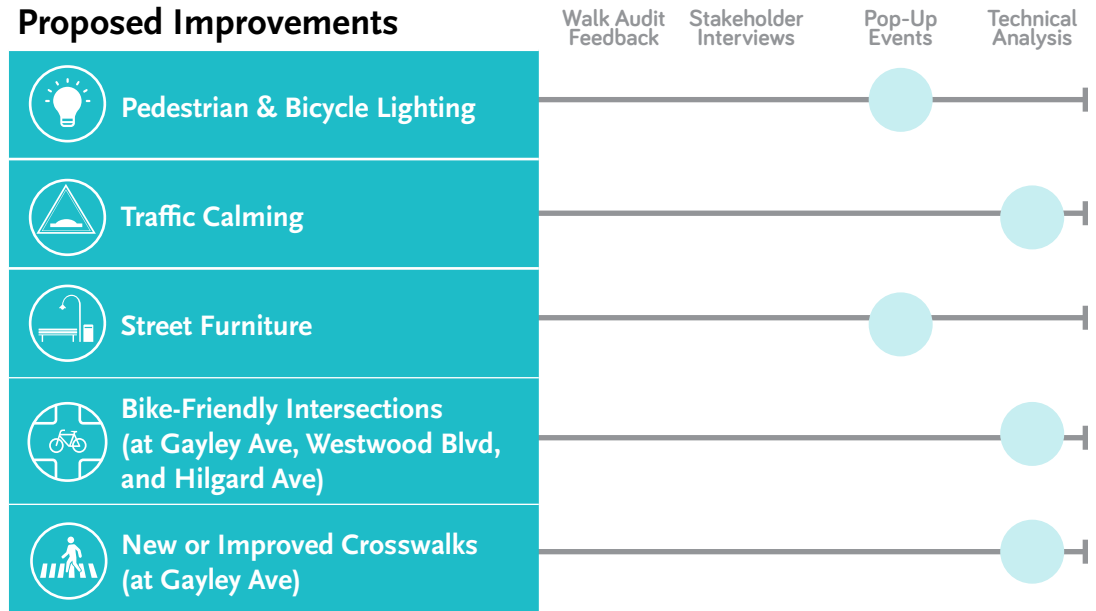


WESTWOOD/UCLA

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.

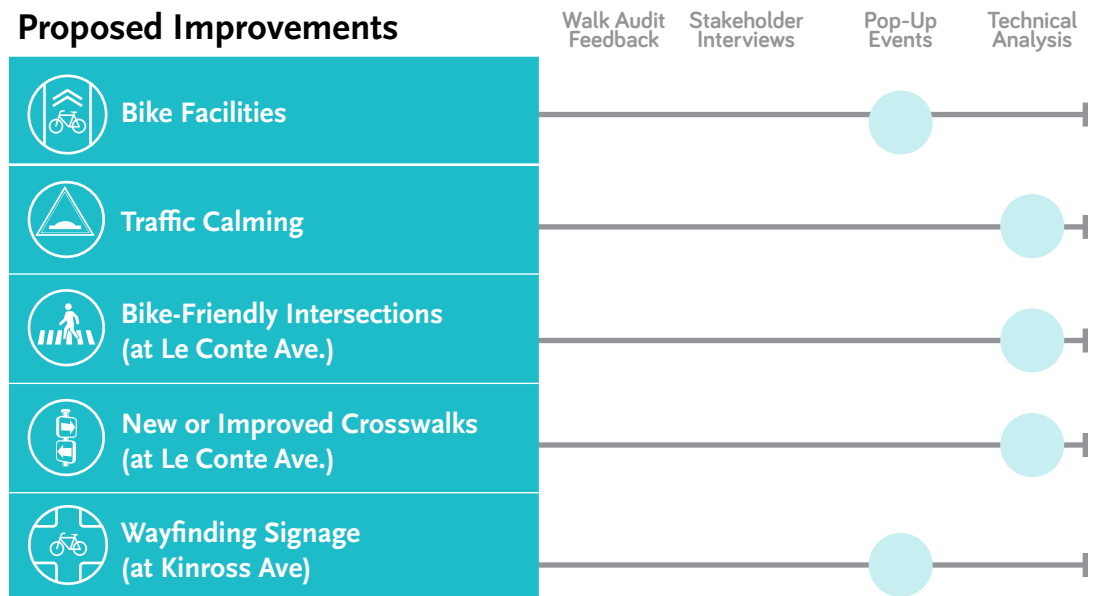
Proposed Improvements



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

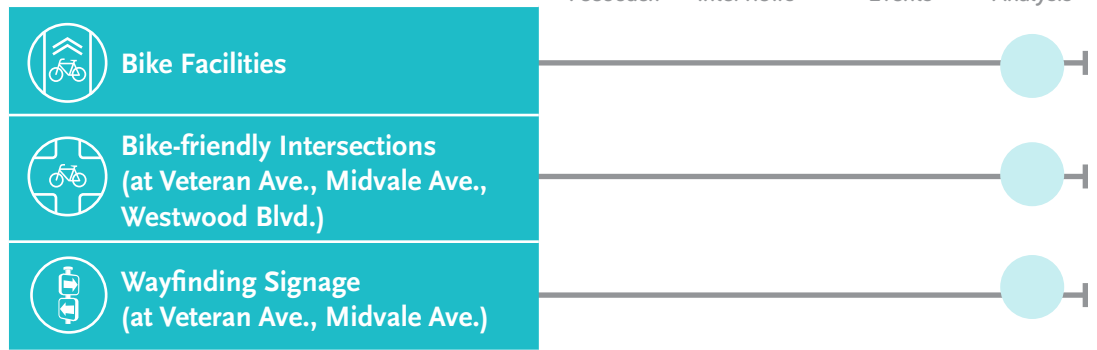


WESTWOOD/UCLA

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.

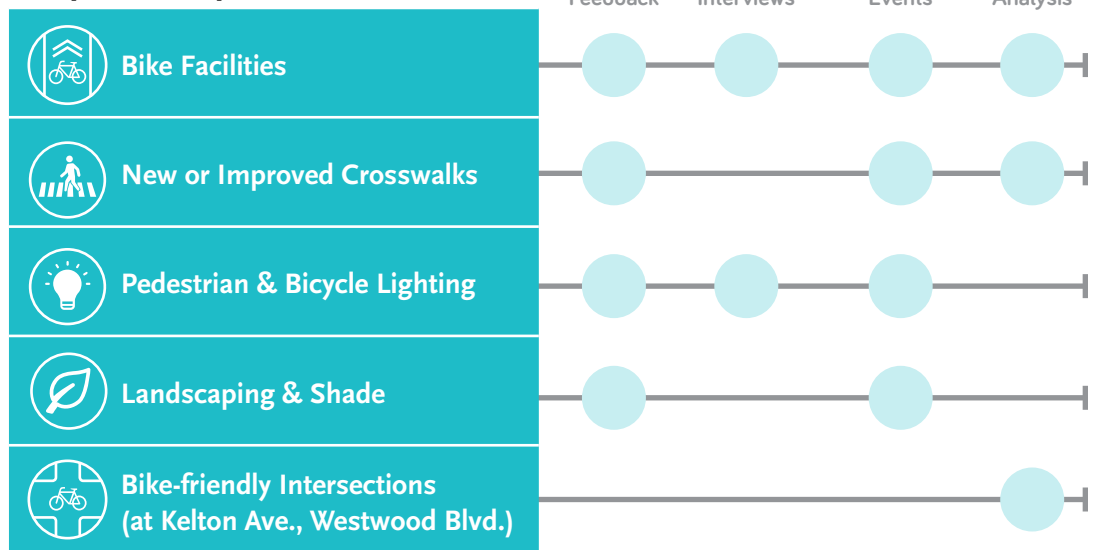
Proposed Improvements



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.

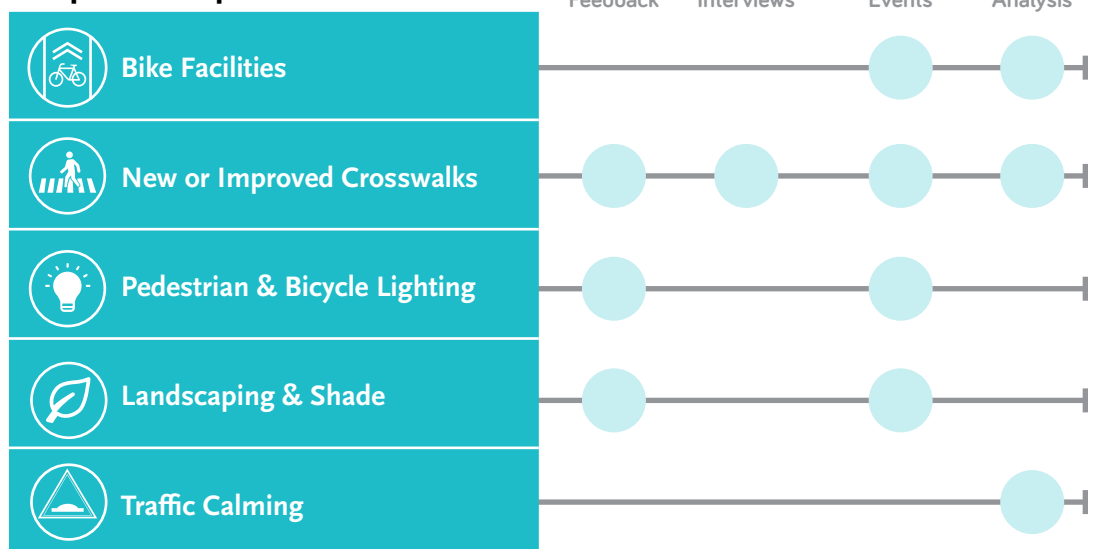
Proposed Improvements



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

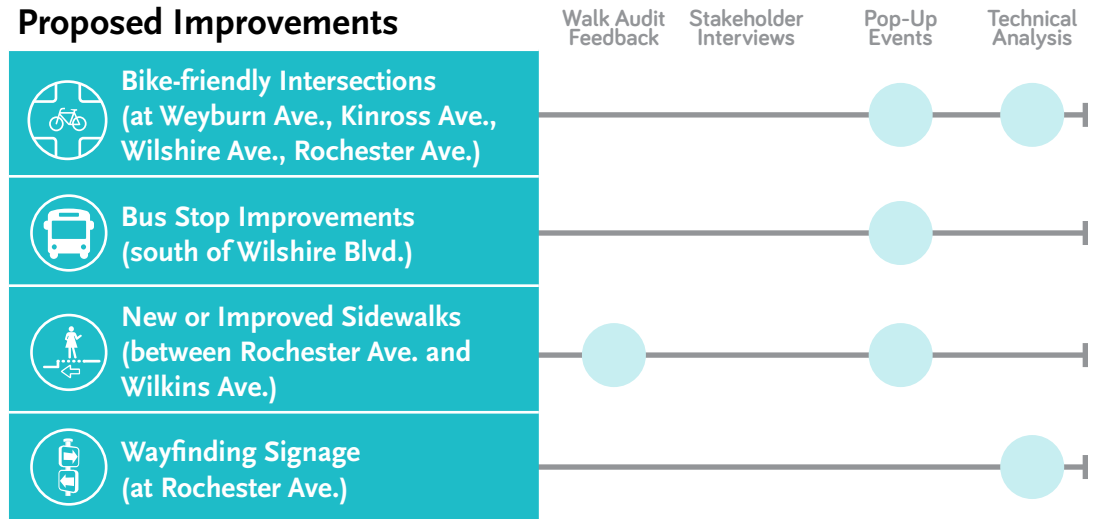


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WESTWOOD/UCLA

Veteran Ave. (cont'd)

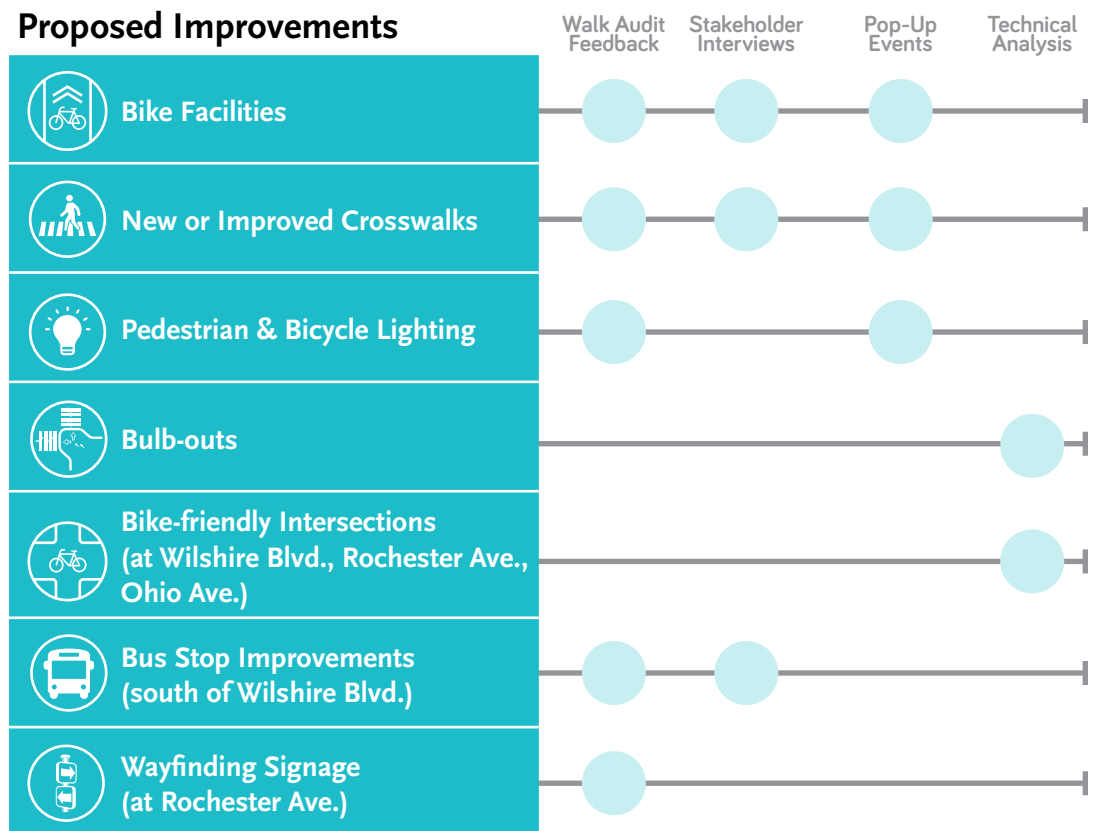
Proposed Improvements



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

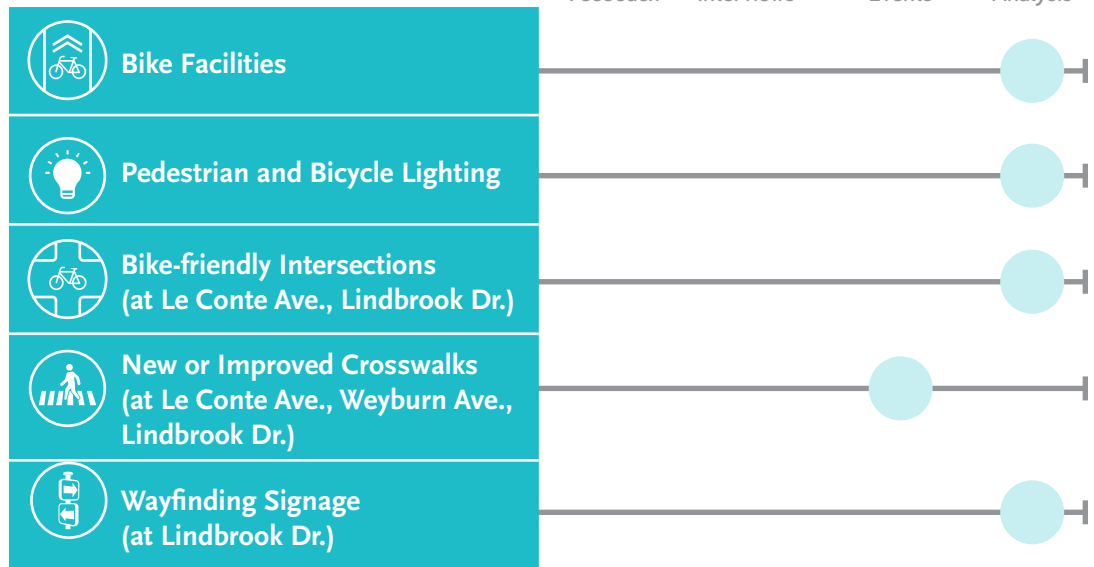


WESTWOOD/UCLA

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.

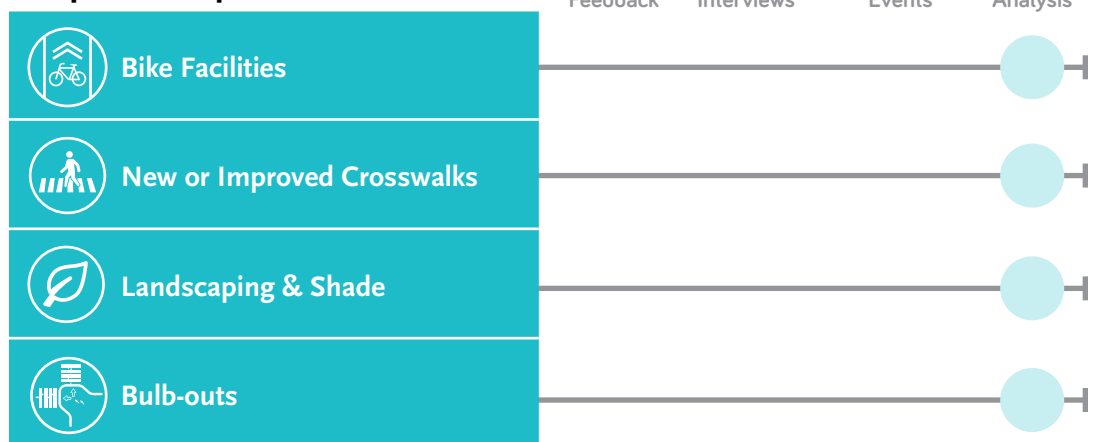
Proposed Improvements



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.

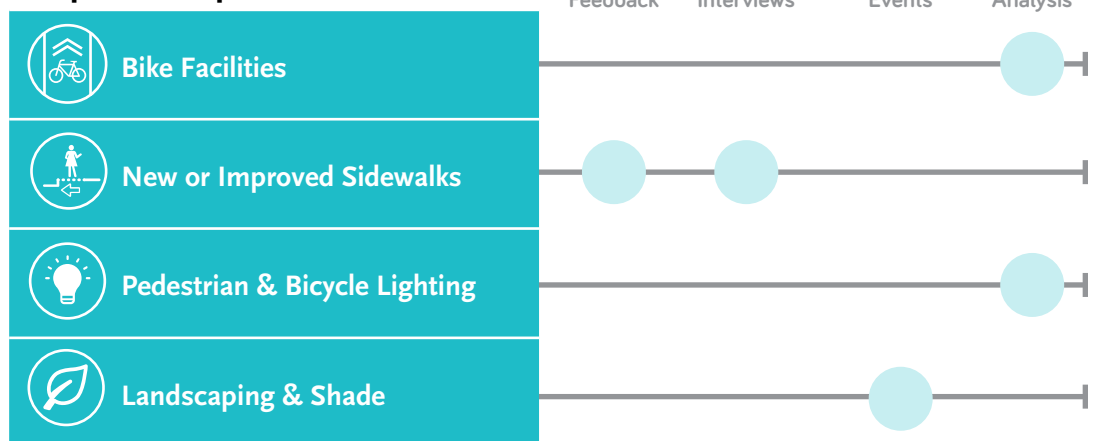
Proposed Improvements



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

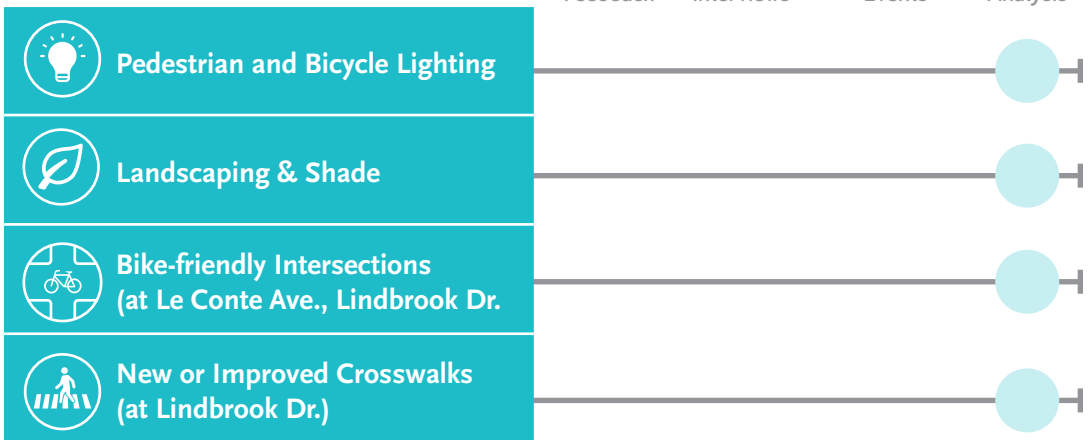


WESTWOOD/UCLA

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.

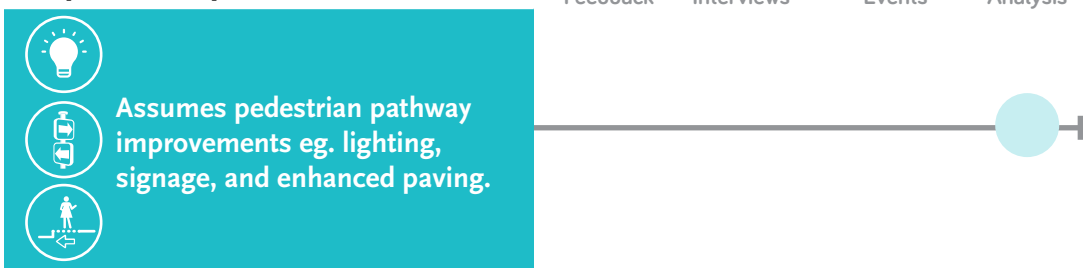
Proposed Improvements



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.

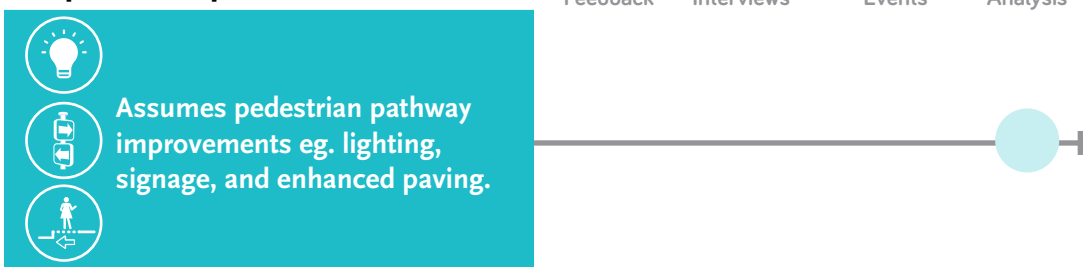
Proposed Improvements



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



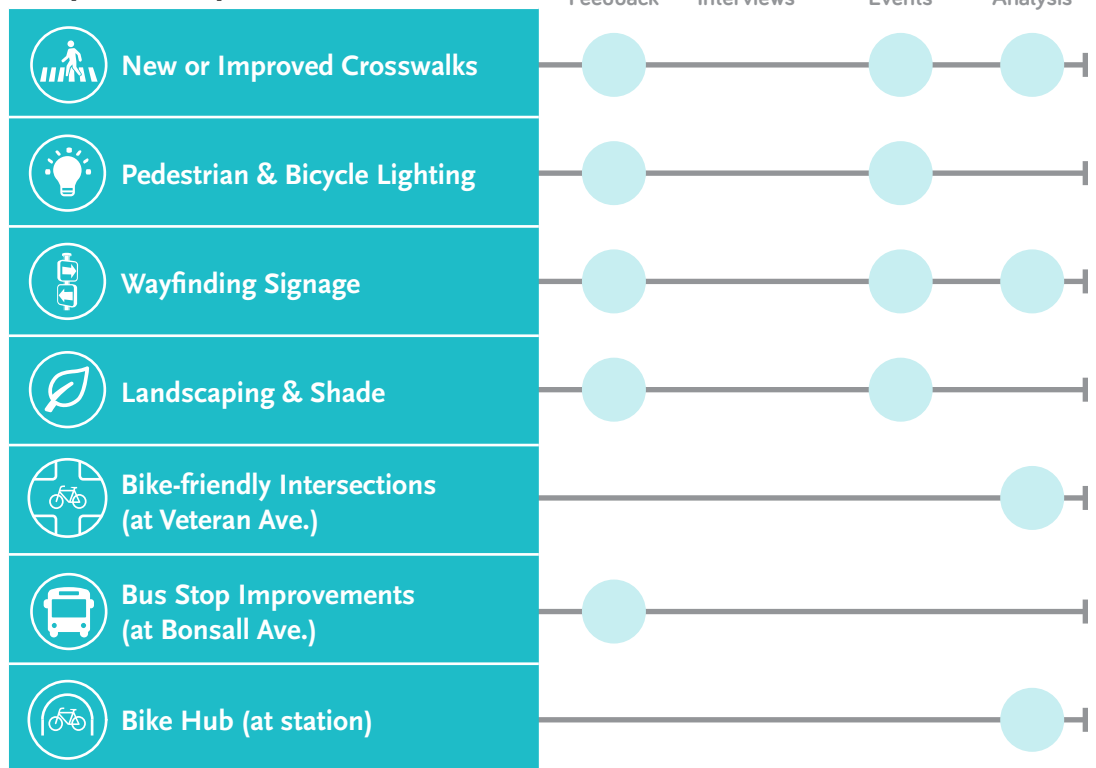
PROJECT ORIGINS WESTWOOD/VA

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.

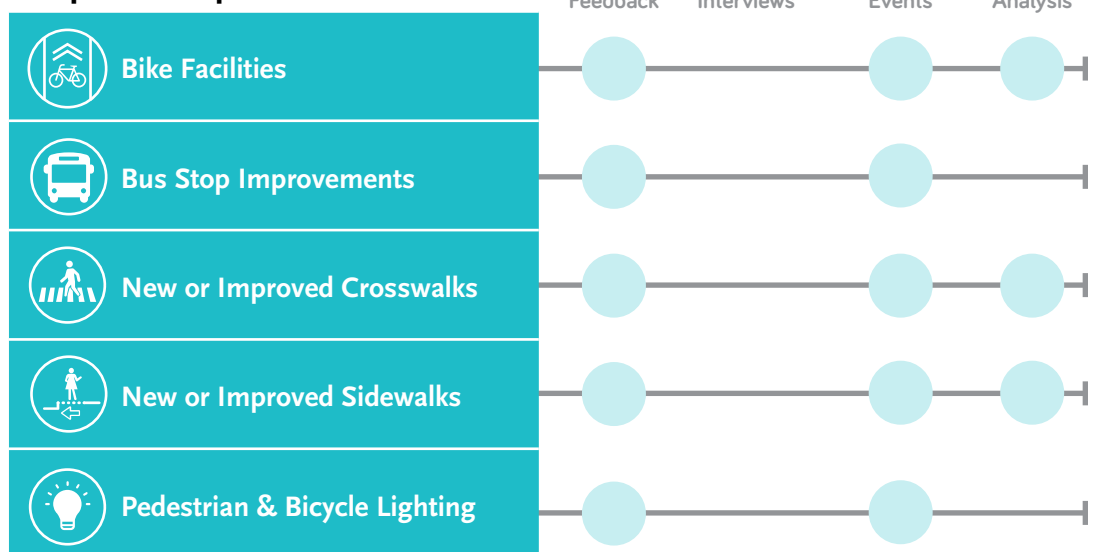
Proposed Improvements



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.

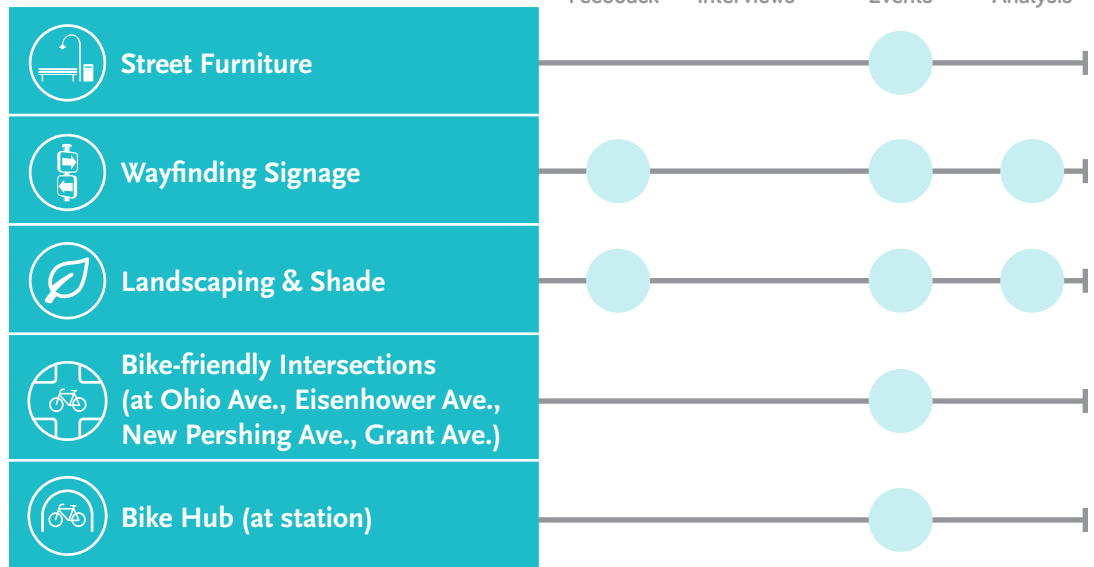
Proposed Improvements



Continued on the next page.

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.

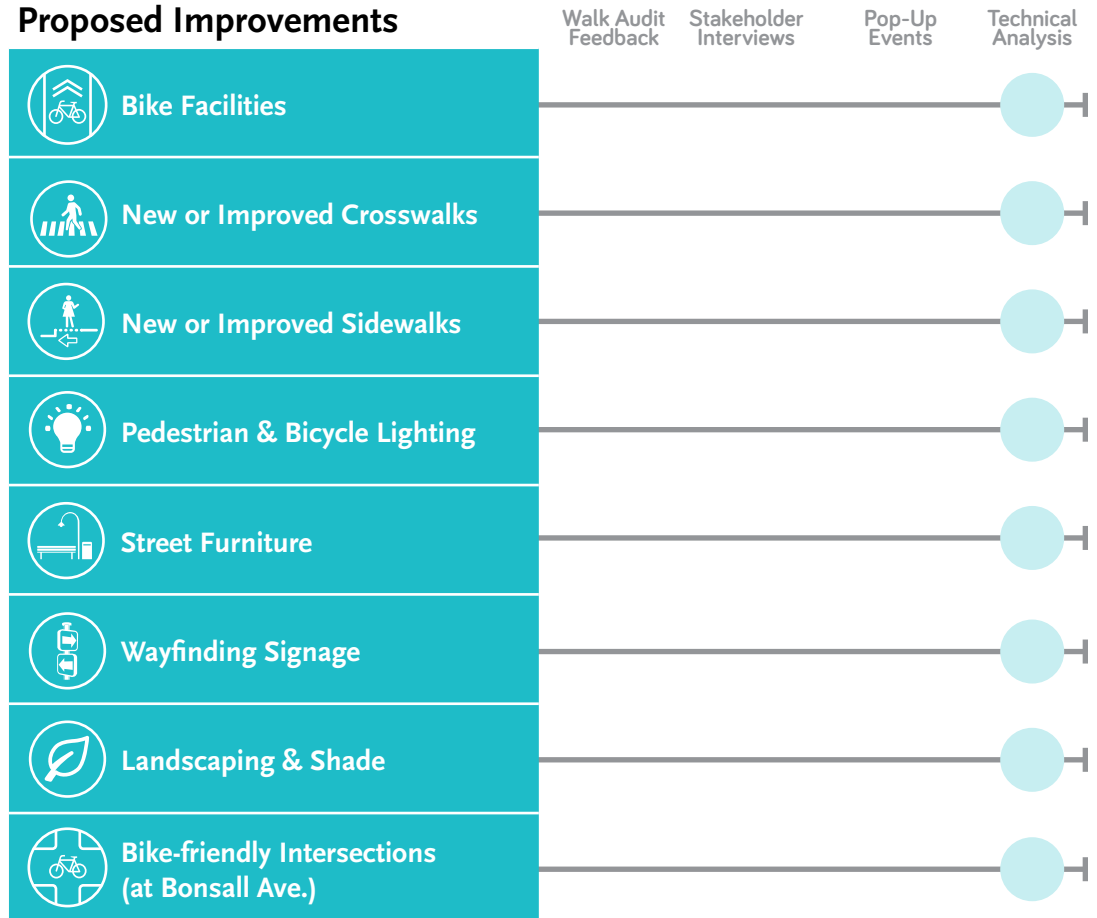
Proposed Improvements



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.

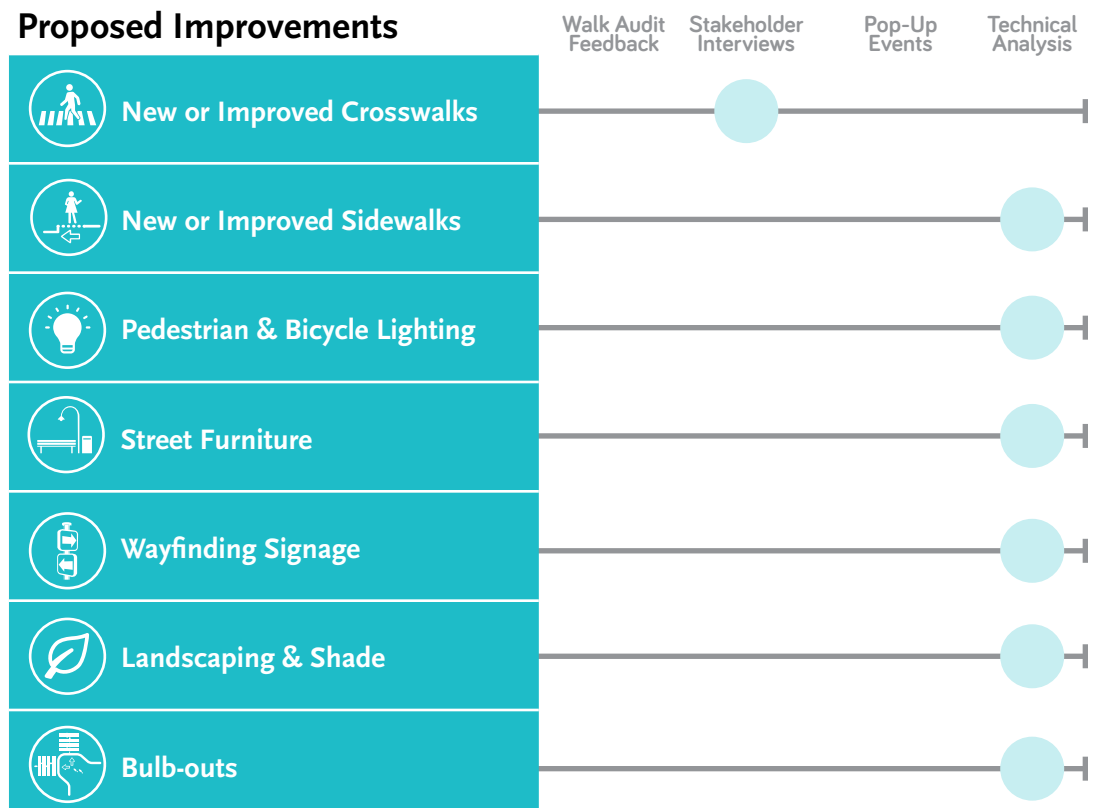
Proposed Improvements



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

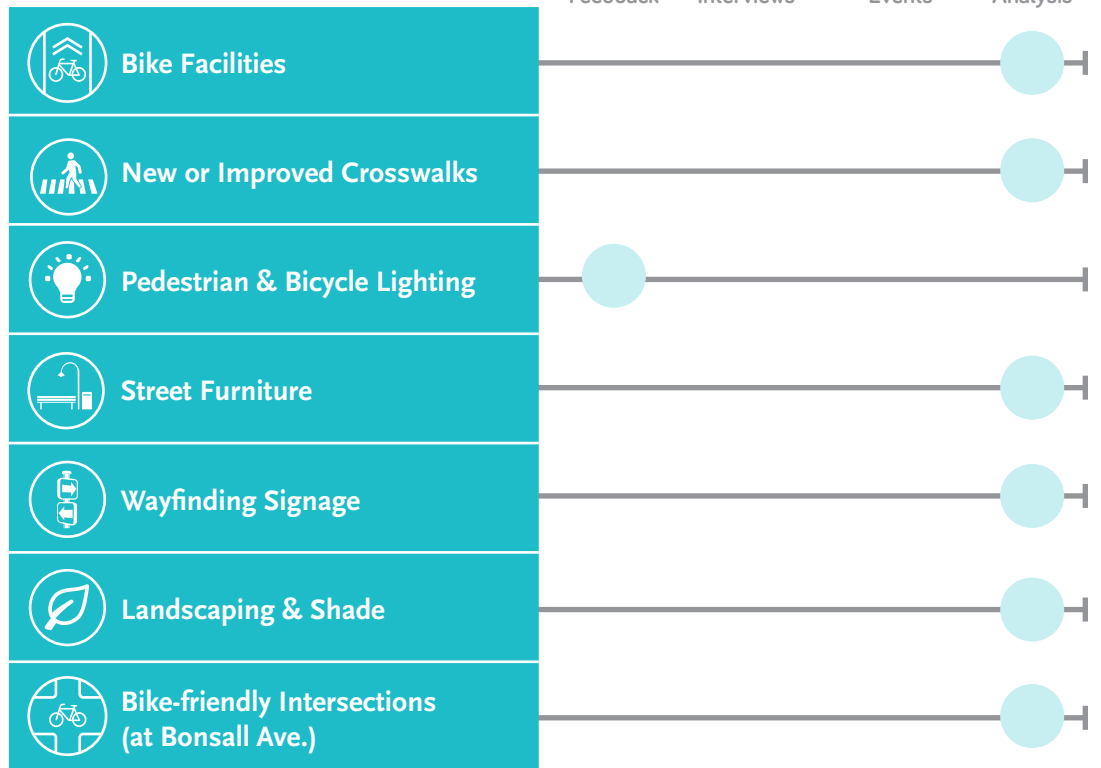


WESTWOOD/VA

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.

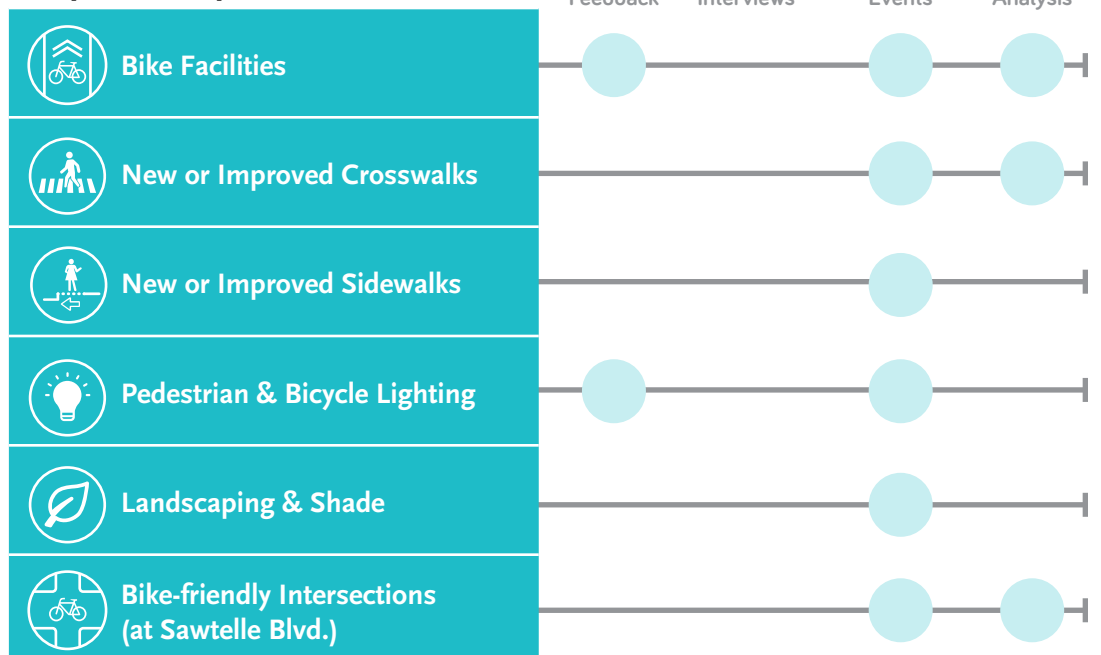
Proposed Improvements



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

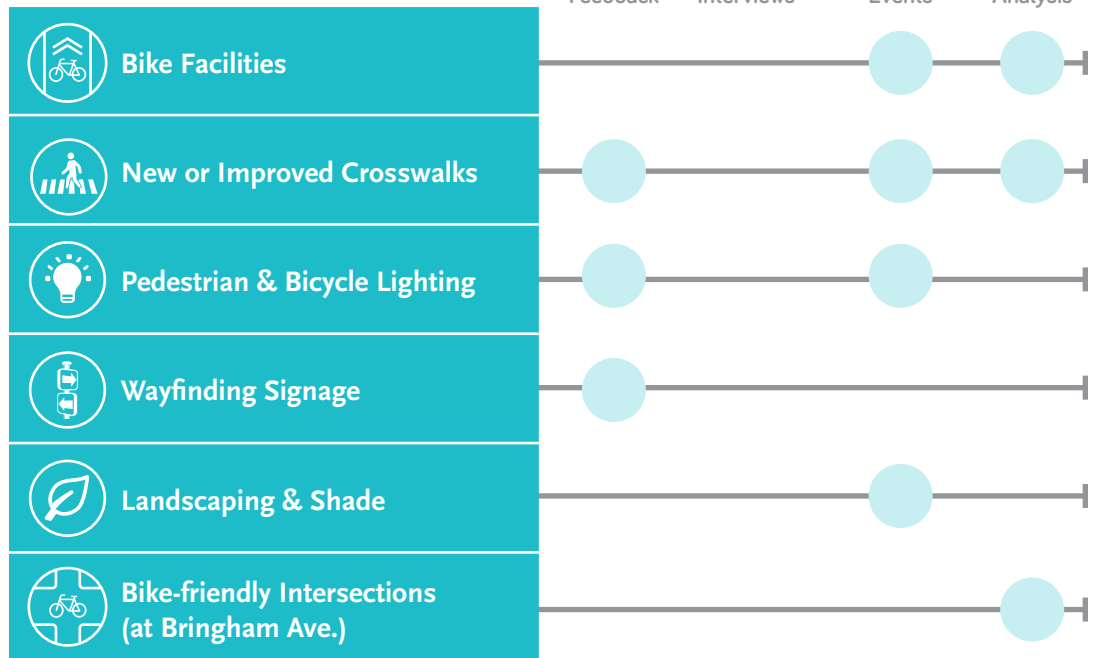


WESTWOOD/VA

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.

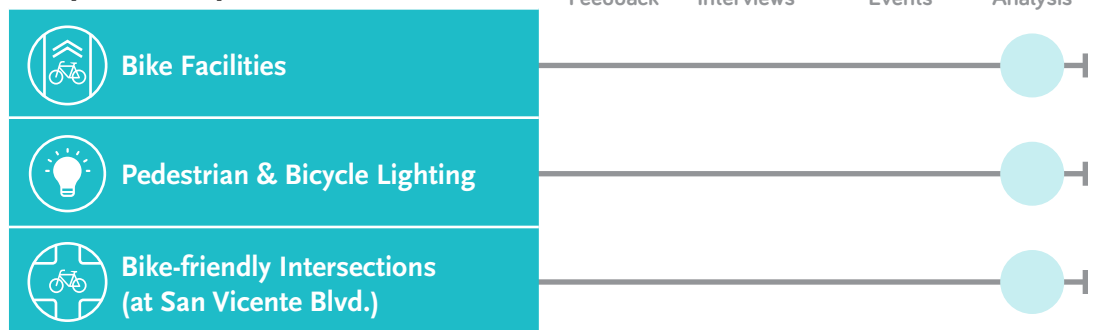
Proposed Improvements



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.

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.

Walk Audit Feedback

Stakeholder Interviews

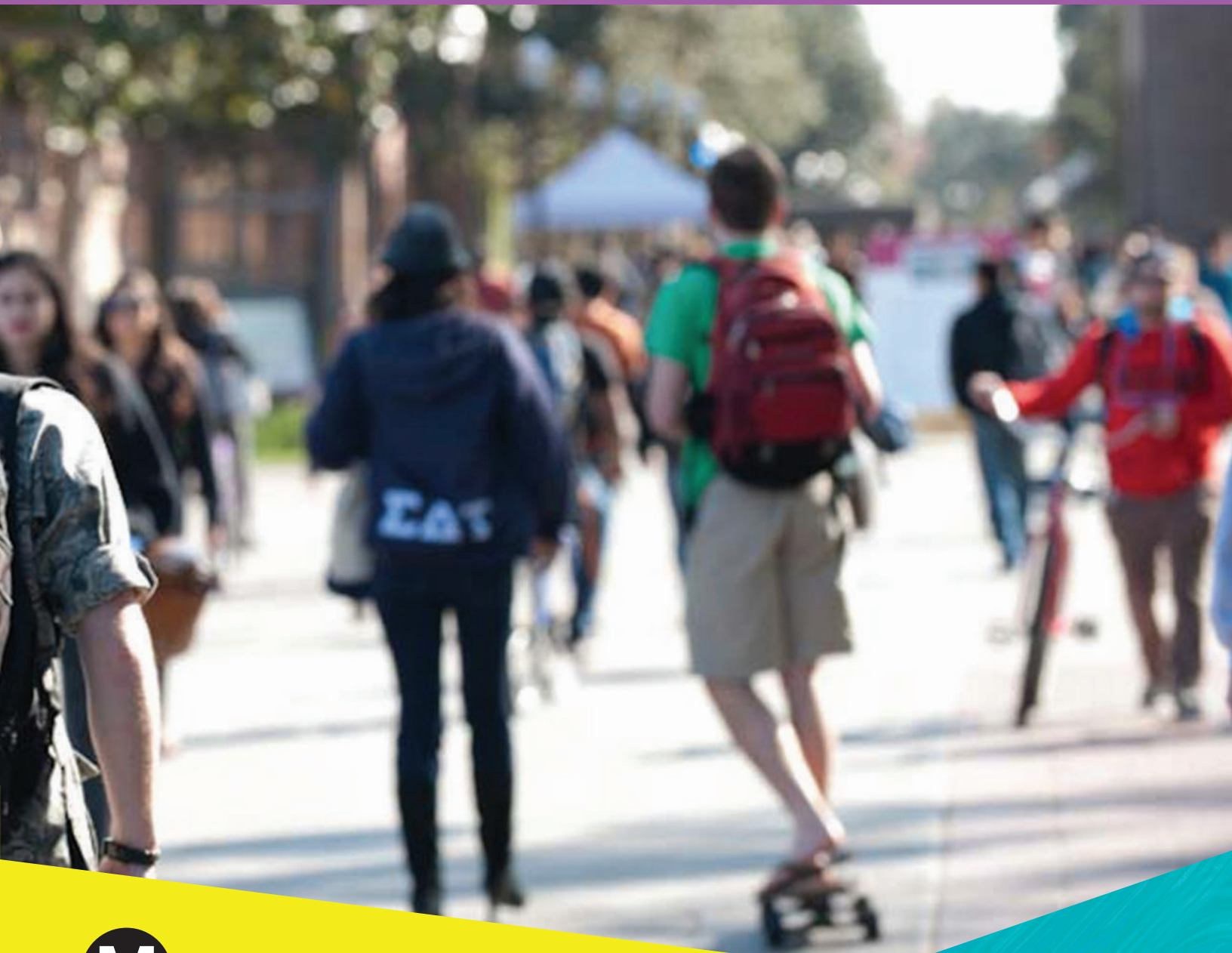
Pop-Up Events

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

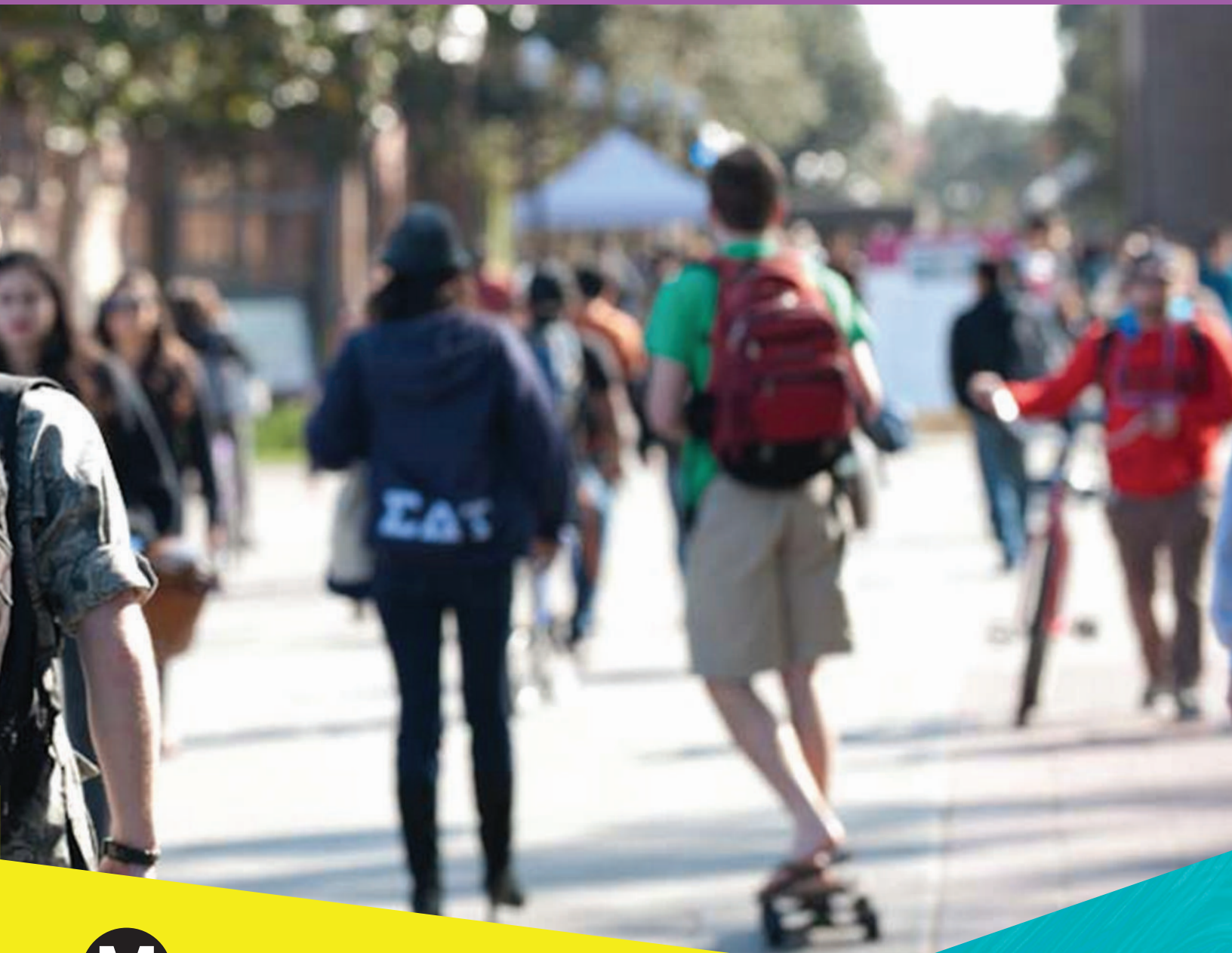
Proposed Biking Improvements

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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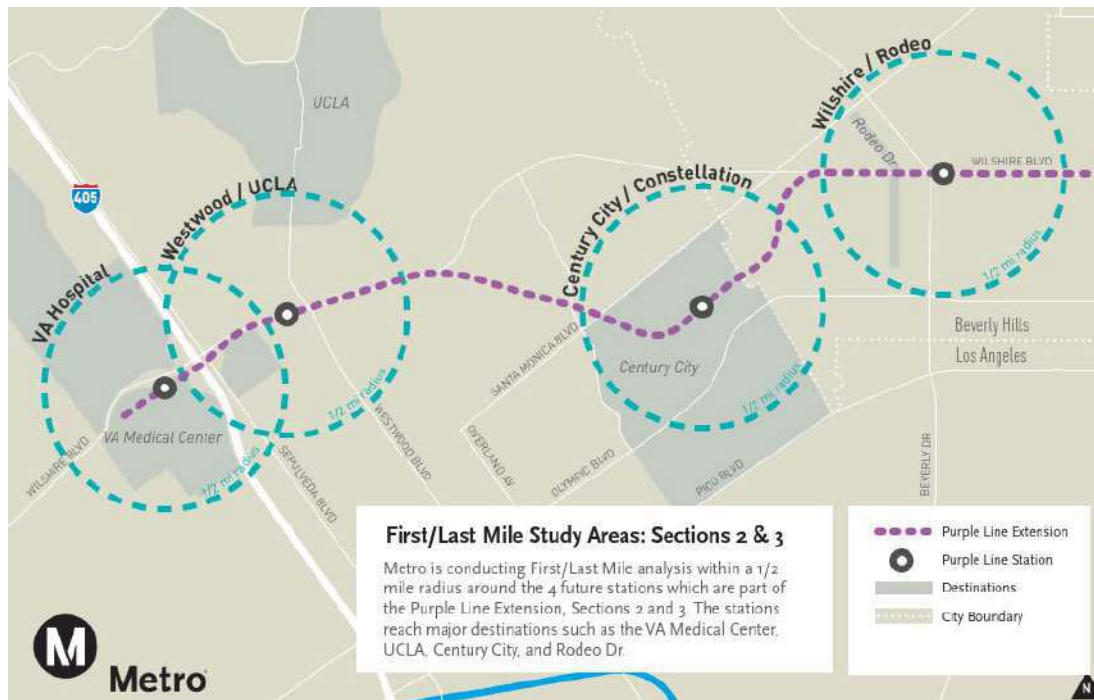
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1 Introduction

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

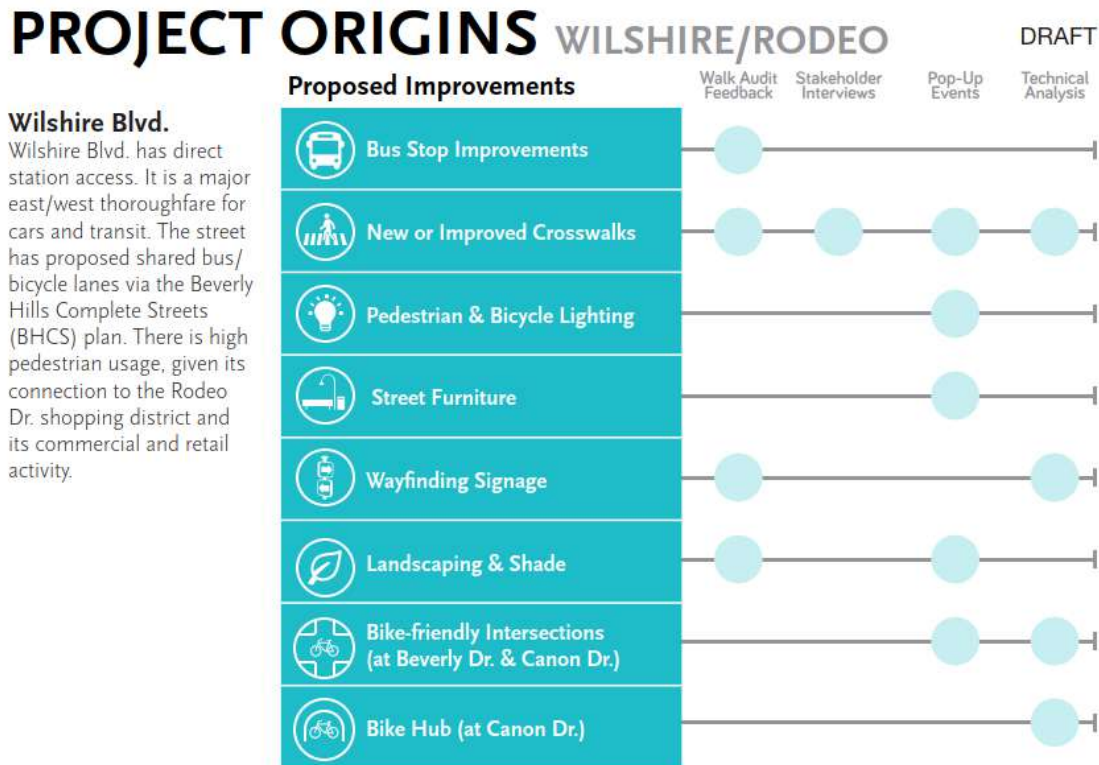
Figure 1: First/Last Mile Study Areas



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

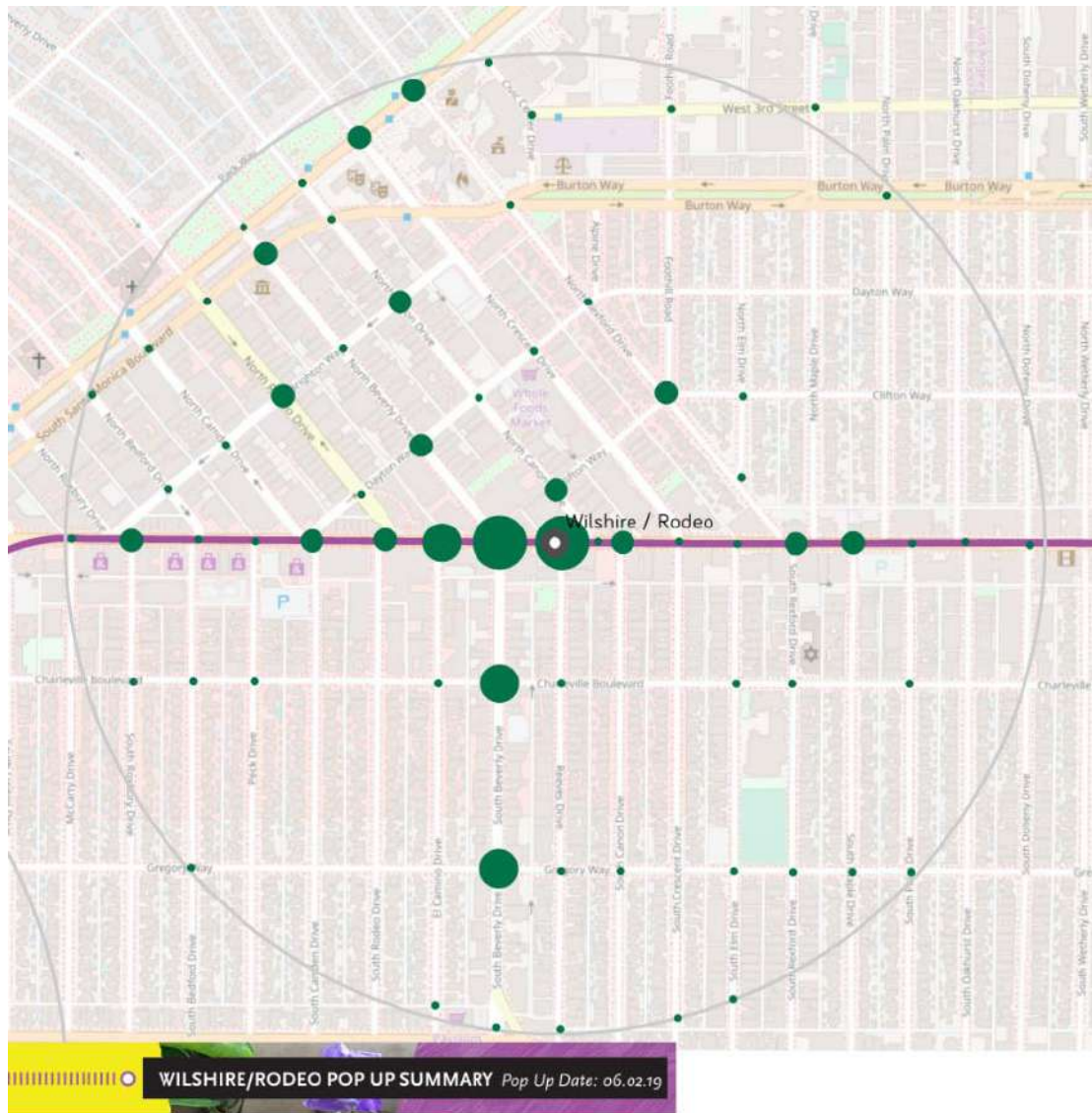
Between November 2018 and January 2019, a series of interviews were conducted with a variety of individuals and organizations that have a stake or interest in the future of the Metro Purple Line Extension Project. Stakeholders included elected officials, planning staff, and representatives from community 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?

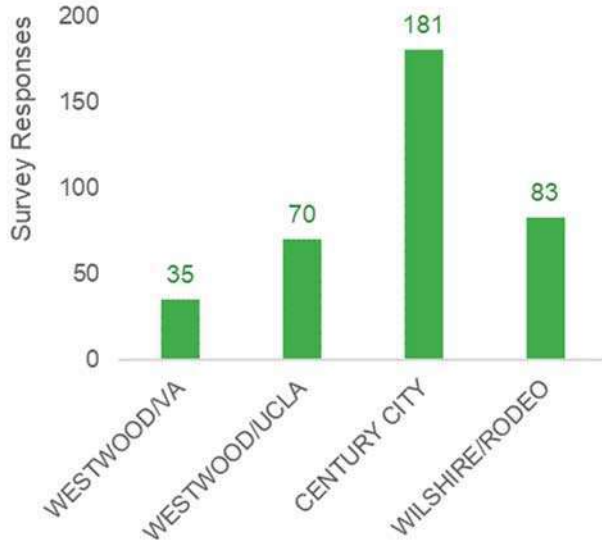


Figure 5: What is your relation to the Westside area?

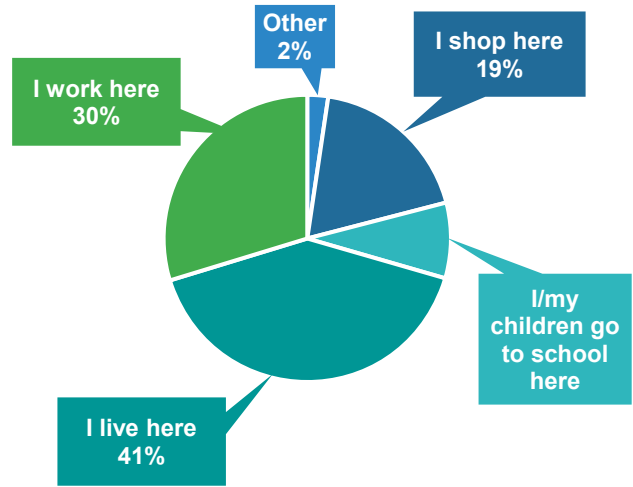
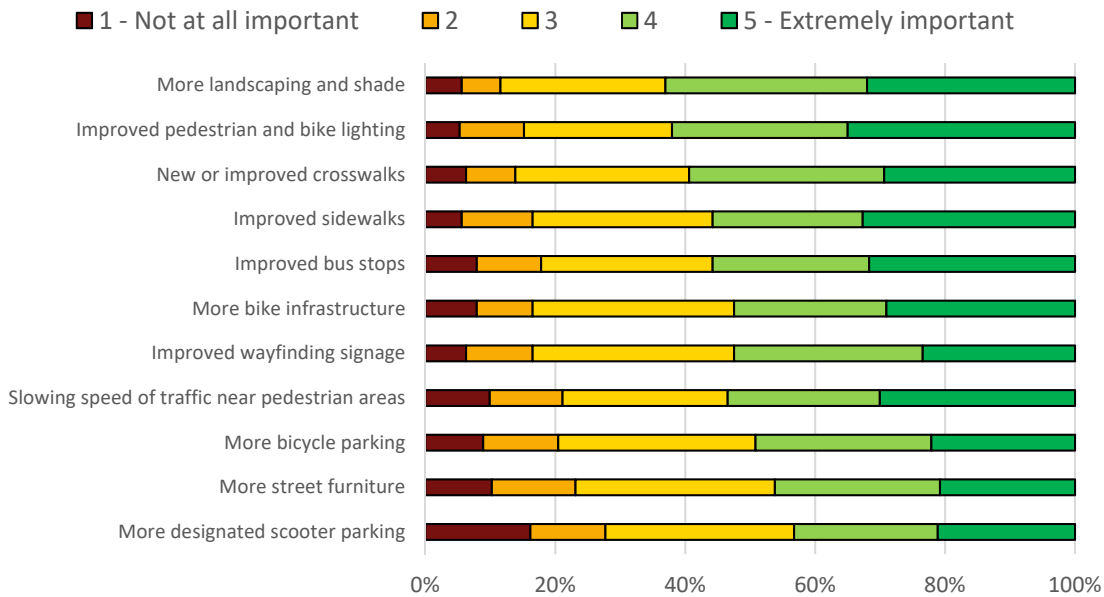


Figure 6: How important to you are the following street improvements around the stations?



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.

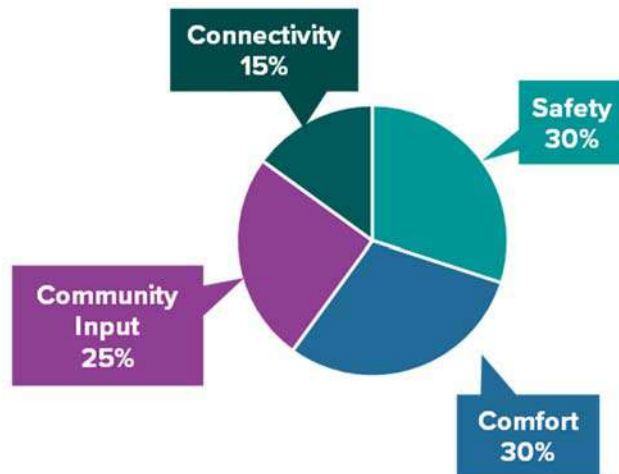
The scoring system will convey project prioritization from a technical standpoint and the projects themselves would be subject to coordination with local jurisdictions, available funding, and Metro Board direction.

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

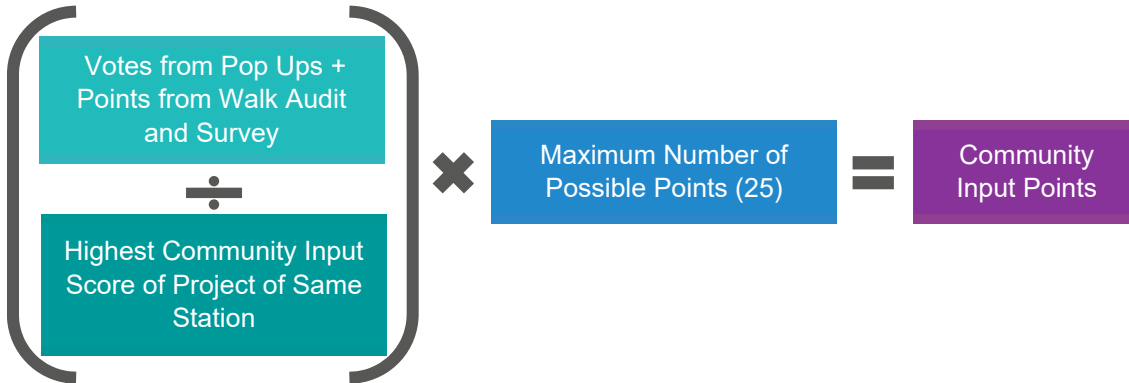
Community input was solicited through online surveys, walk audits, and pop-up community events. At the pop-up events participants indicated where in each station area they would like to see pedestrian improvements. These votes have then been grouped by street and the total number of votes per street 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

PROJECT SCORING and PRIORITIZATION
 WILSHIRE/RODEO STATION - PEDESTRIAN 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)		
				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 Wilshire Blvd (Arterial)																		
1		New or improved crosswalk	Linden Dr to Wetherly Dr	5					5									80.5
2		Bus stop improvements	Linden Dr to Wetherly Dr				8		5									
3		Ped/bike lighting	Linden Dr to Wetherly Dr	5														
4		Street furniture	Linden Dr to Wetherly Dr				6											
5		Wayfinding	Linden Dr to Wetherly Dr				6		5									
6		Landscaping and shade	Linden Dr to Wetherly Dr				10		5	5								
Projects on Beverly Dr. (Arterial)																		
7		Bulb-outs	Park Way to Olympic Blvd	5													65.4	
8		New or improved crosswalk	Park Way to Olympic Blvd	5														
9		Improved sidewalks	Park Way to Olympic Blvd	5					5									
10		Bus stop improvements	Park Way to Olympic Blvd				8											
11		Street furniture	Park Way to Olympic Blvd				6		5									
12		Wayfinding	Park Way to Olympic Blvd				6											
Projects on N. Santa Monica Blvd (Arterial)																		
13		New or improved crosswalk	Bedford Dr to N Alpine Dr	5					5								57.5	
14		Bus stop improvements	Bedford Dr to N Alpine Dr				8											
15		Ped/bike lighting	Bedford Dr to N Alpine Dr	5														
16		Wayfinding	Bedford Dr to N Alpine Dr				6		5									
17		Landscaping and shade	Bedford Dr to N Alpine Dr				10		5	5								
Projects on S. Santa Monica Blvd (Collector)																		
18		New or improved crosswalks	Roxbury Dr to Crescent Dr	5					5								51.0	
19		Traffic Calming	Roxbury Dr to Crescent Dr	5														
20		Ped/bike lighting	Roxbury Dr to Crescent Dr	5														
21		Street furniture	Roxbury Dr to Crescent Dr				6											
22		Wayfinding	Roxbury Dr to Crescent Dr				6											

4 Wheels Project Scoring

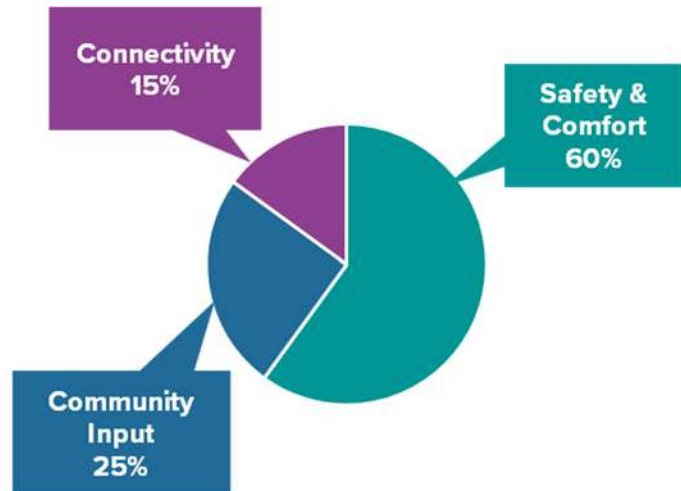
Similar project prioritization methodology from the East San Fernando Valley FLM Planning project were reviewed to develop a scoring system appropriate for the Purple Line FLM project. Major differences in scoring include the nature of the wheels projects that are being proposed, such as bicycle-friendly 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

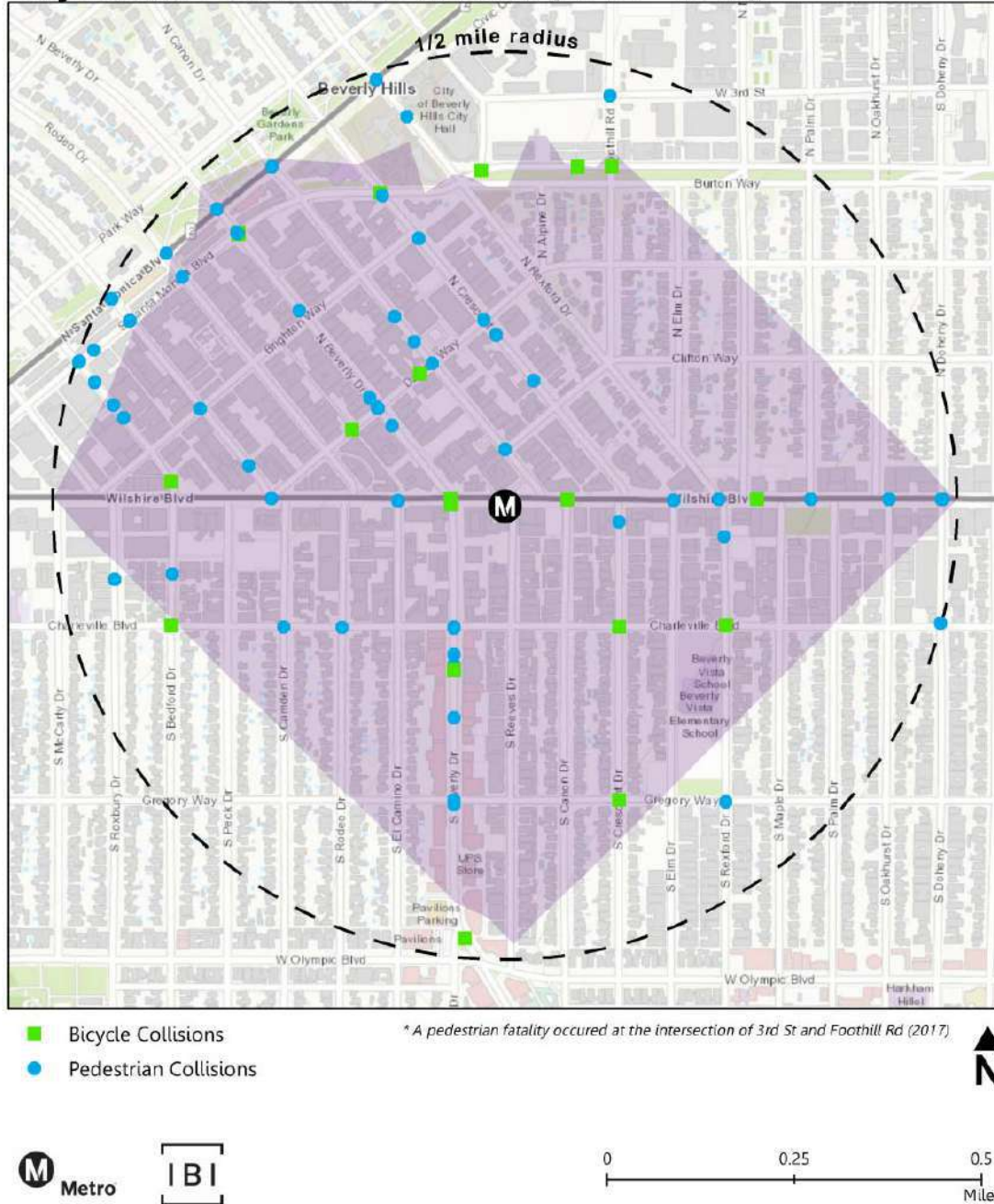
The number of bicycle-motor vehicles collisions per data from SWITRS on a street segment during the past five years that would potentially be reduced by implementing a project on that street segment could earn up to 10 points

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)



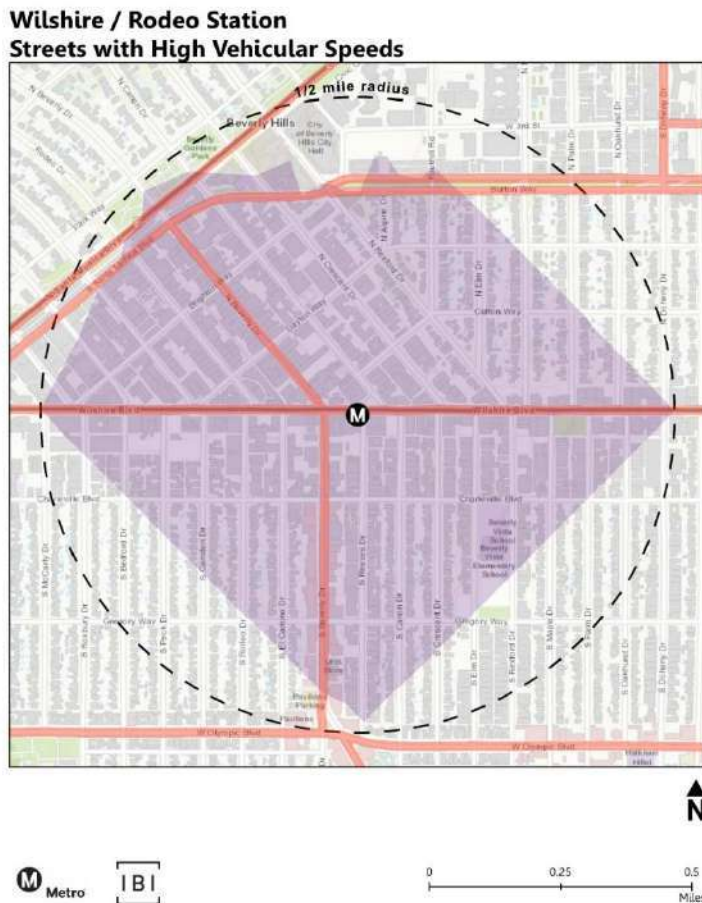
NACTO Guidelines = 20 points

The extent to which a project conforms to NACTO guidance for safety and comfort could earn up to 20 points.

20 points	Project would meet NACTO Contextual Guidance for All Ages & Abilities Bikeways, that is Class I; Class IV; Class II on street with 1 lane each way, ≤25 mph after calming and ≤3,000 ADT; Class III on street with ≤20 mph after calming and ≤2,000 ADT
10 points	Class III with ≤20 mph after calming and ≤5,000 ADT
10 points	Class II on street with 1 lane each way, ≤30 mph and ≤20,000 ADT
5 points	Class III with 1 lane each way, ≤25 mph after calming and ≤8,000 ADT
5 points	Class II on street with 2 lanes each way and ≤35 mph

The project team developed summary maps highlighting surrounding streets with high vehicular speeds to inform the scoring within this category, as shown in Figure 12. Average daily traffic count data is sourced from publicly available information from the Cities of Los Angeles and Beverly Hills.

Figure 12: Surrounding Streets with High Vehicular Speeds for Wilshire/Rodeo



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.

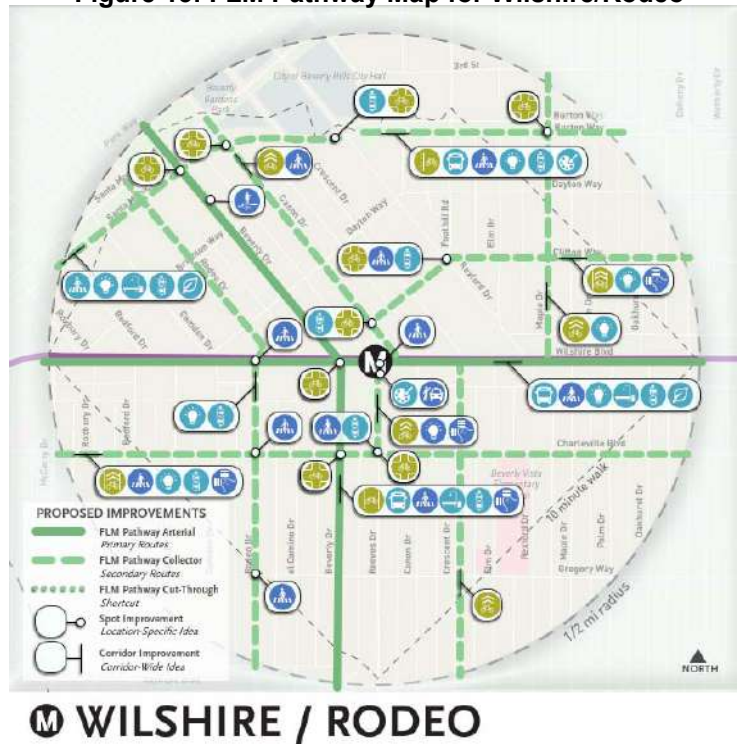
10 points	Yes
0 points	No

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



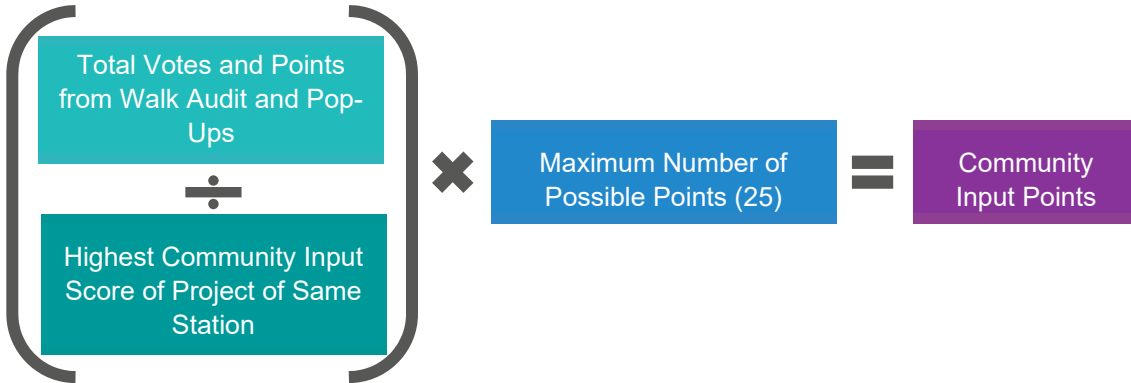
4.1.2 Community Input = 25 points

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



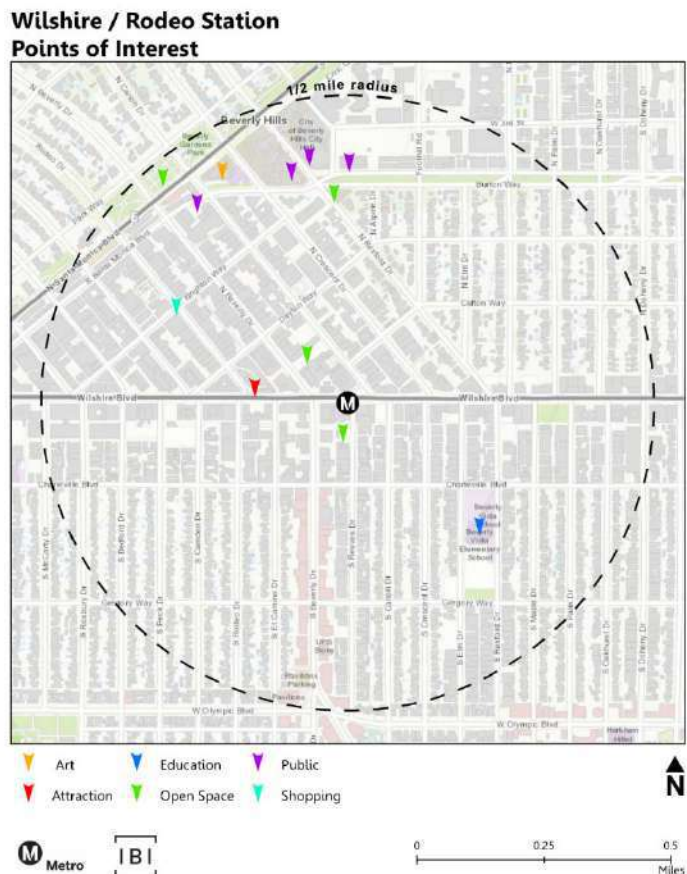
5 points	Proposed during Walk Audits
5 points	If included in top 3 “most important” improvements from Survey question #11
# Votes	Votes during Pop-Ups

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

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)	
				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 Beverly Dr. (Arterial)																			
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	
2		Bicycle-friendly Intersection	Wilshire Blvd, Charleville Blvd, Gregory Way, Santa Monica Blvd				10												
Projects on Wilshire Blvd (Arterial)																			
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
Projects on Burton Way (Collector)																			
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	
5		Bicycle-friendly Intersection	Foothill Rd, Maple Dr, Rexford Dr				10												
Projects on Clifton Way (Collector)																			
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	
7		Bicycle-friendly Intersection	Rexford Dr, Canon Dr				10												
Projects on Charleville Blvd (Collector)																			
8		Class IV protected bike lane	McCarty Dr to Robertson Blvd	3	20	10		43		3	3	5.0				2	2	50.0	
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 (Collector)																			
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	
Projects on N. Santa Monica Blvd (Arterial)																			
11		Bicycle-friendly Intersection	Bedford Dr to N Alpine Dr	5		10	10	25		1	1	1.7			3	2	5	31.7	
Projects on Canon Dr (Collector)																			
12		Class II bike lane	Santa Monica Blvd to Wilshire Blvd	1	5	10		16	5	1	6	10.0				2	2	28.0	
Projects on Crescent Dr (Collector)																			
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	
Projects on Roxbury Dr (Collector)																			
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	
Projects on Reeves Dr (Collector)																			
15		Class III Bike Boulevard with street calming	Wilshire Blvd to Charleville Blvd		10			10				0.0		5		2	7	17.0	

5 Next Steps

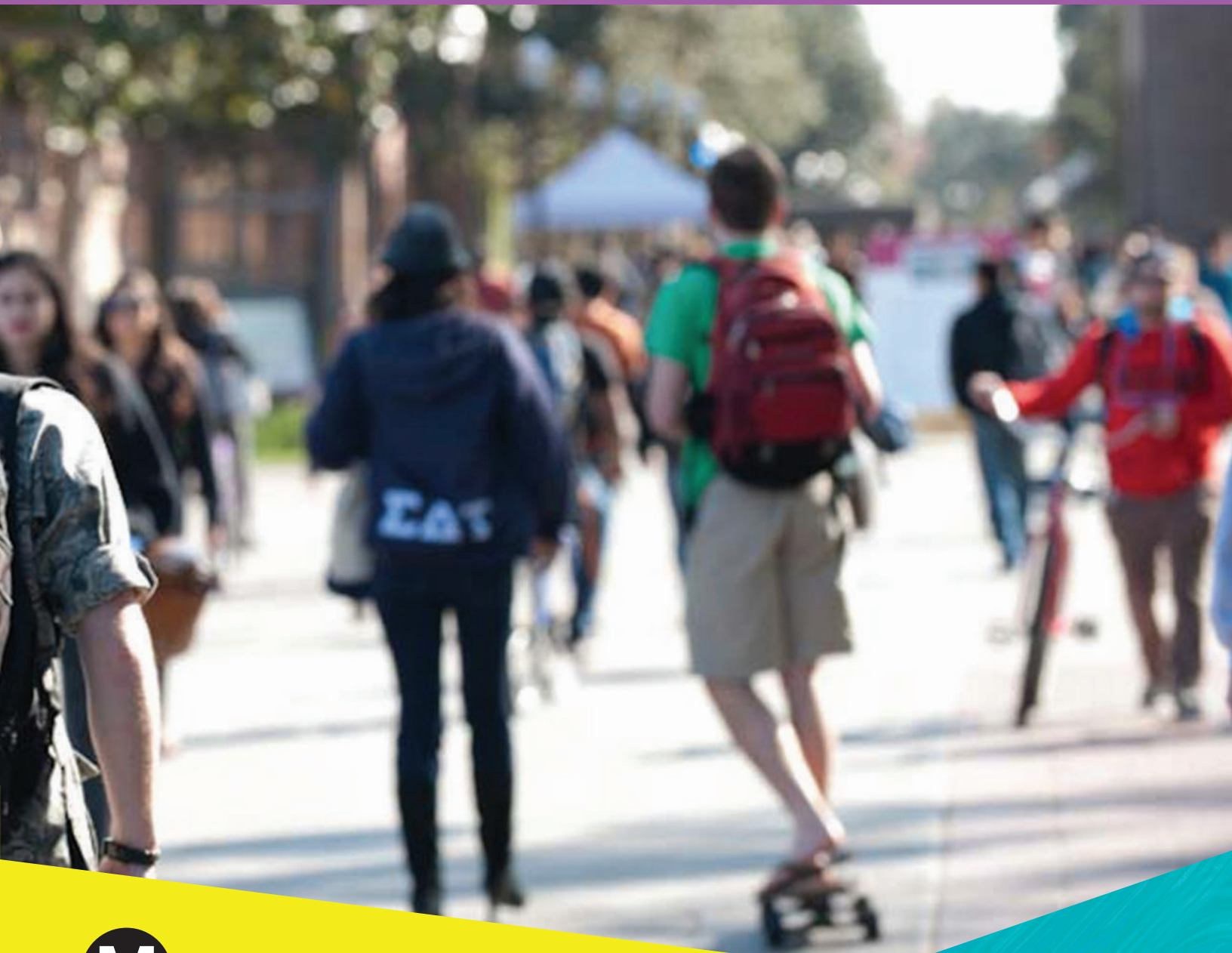
Once this Prioritization Methodology Memo is finalized and approved, the Design Team will develop scores for the four Purple Line Westside Extension Phase II and III stations' pedestrian and wheels projects. It is recommended that each station's final prioritization matrices be reviewed by Metro, the 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 reappportionment 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.

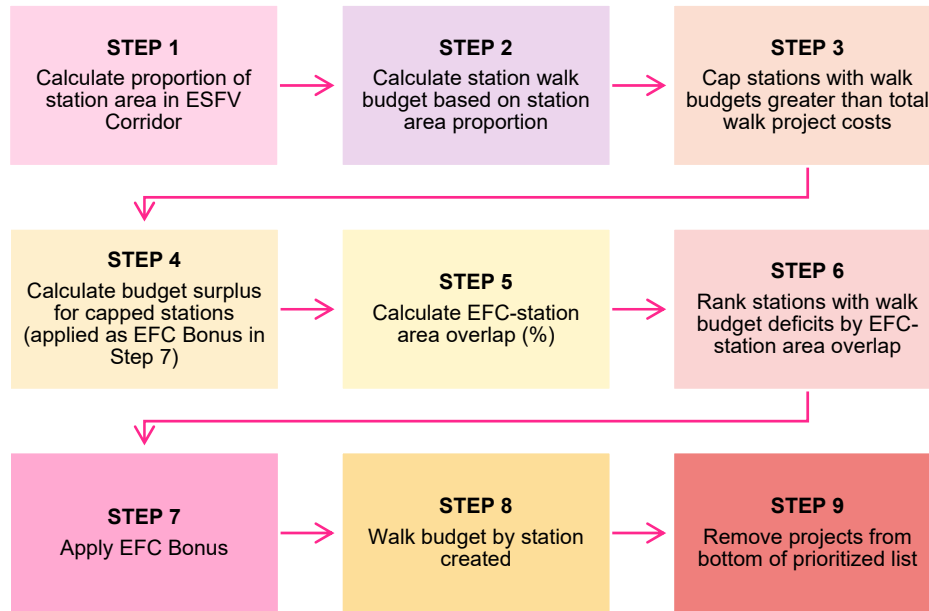
Appendix A

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

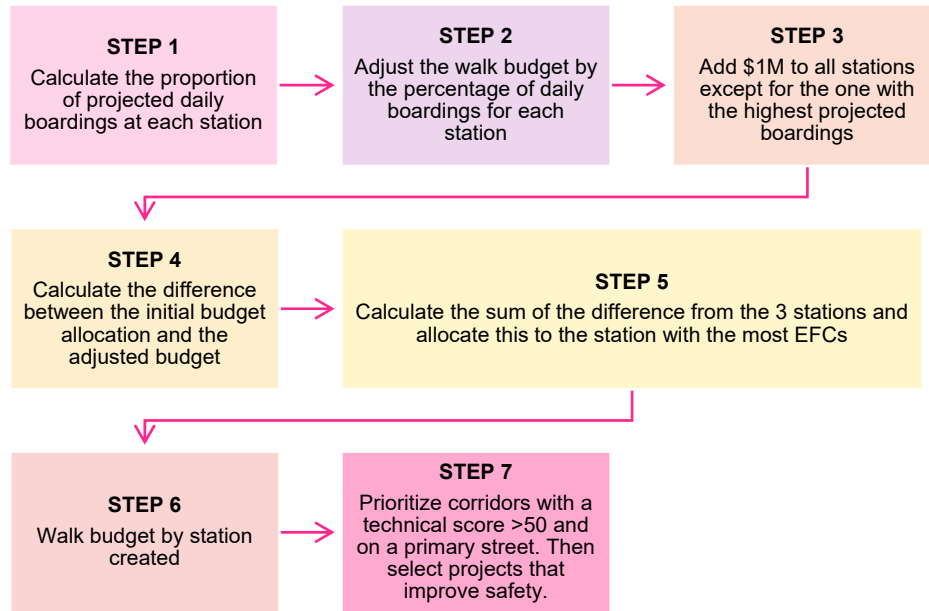


The results of this methodology applied on the PLE Sections 2 and 3 projects led to the elimination of the majority of corridors and improvements at each station. This was likely due to the larger scope of projects at the PLE Sections 2 and 3 stations when compared to the project lists of the ESFV project. 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

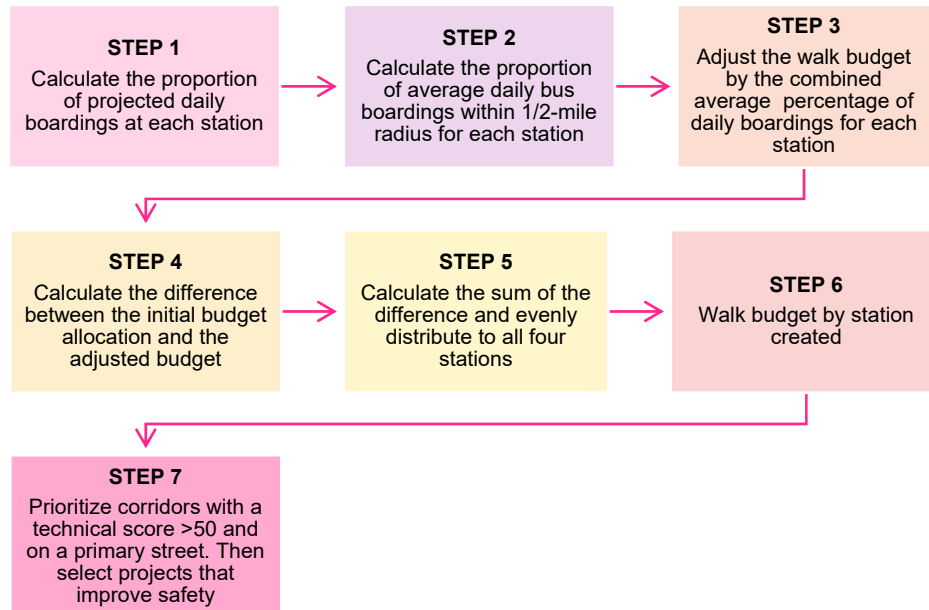
Alternative methodologies were then developed and tested for their applicability to PLE stations. These methods are summarized in the flow charts below.

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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Los Angeles, CA 90012-2952

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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

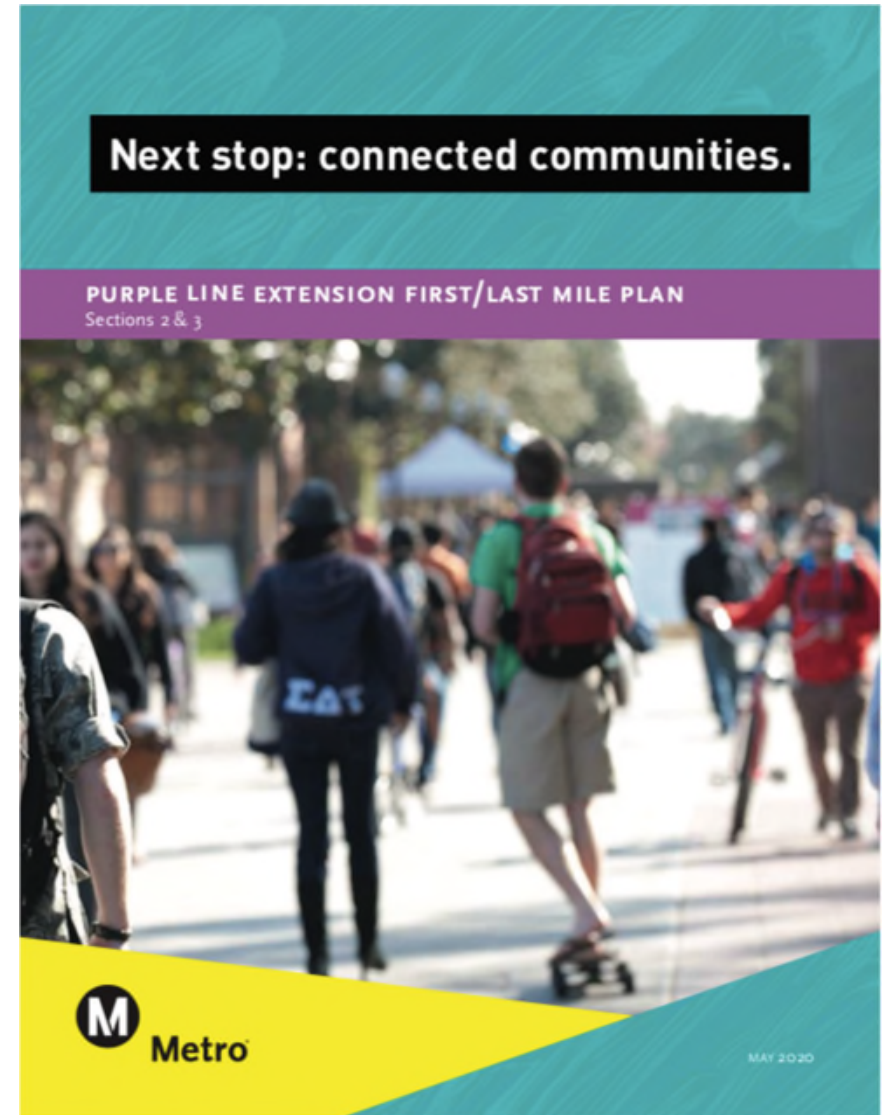


Recommendation

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



Metro



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> Environ- mental 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

	<p>only accrue on portions of the withheld interest reserve that are applied to interest pursuant to the preceding sentence.</p>
<p>53. <u>Predevelopment Loan: Future Development Plans</u></p>	<p>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.</p>
<p>54. <u>Project Milestones</u></p>	<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.
<p>55. <u>Predevelopment Loan: Evidence of Permissive Zoning</u></p>	<p>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>
<p>56. <u>Predevelopment Loan: Financial Statements</u></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></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

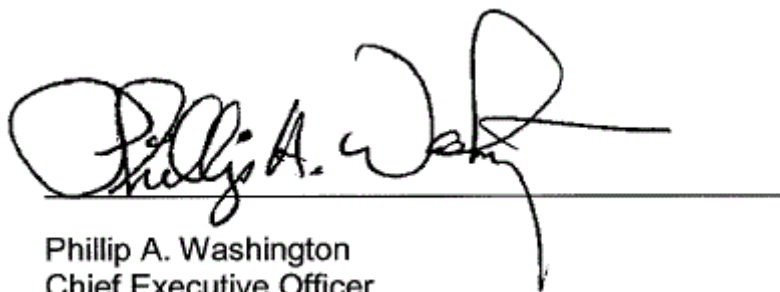
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Debra Avila, Chief Vendor Contract Management Officer, (213) 418- 3051



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

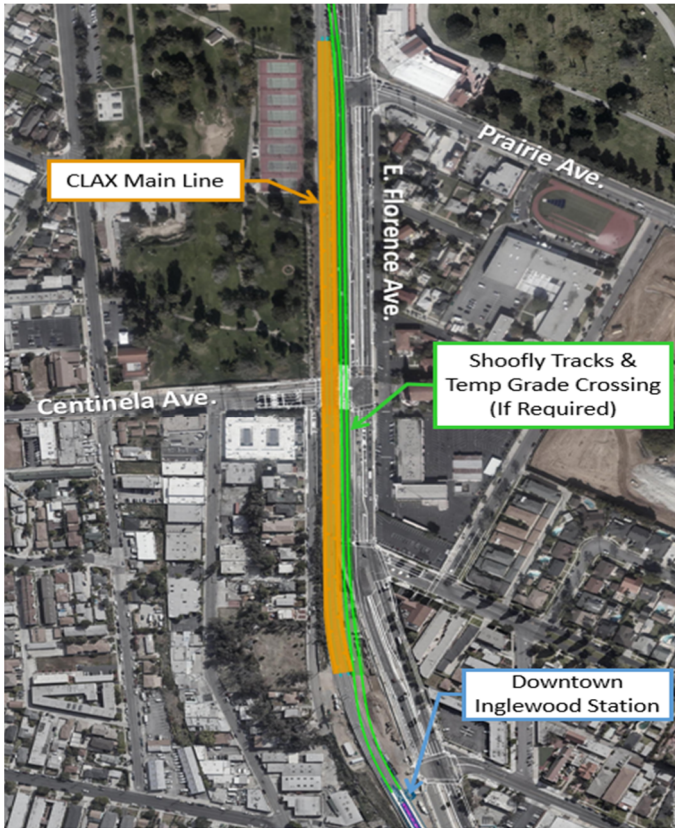
Inglewood Basketball & Entertainment Center (Clippers Arena, 18,000 seats)

- 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

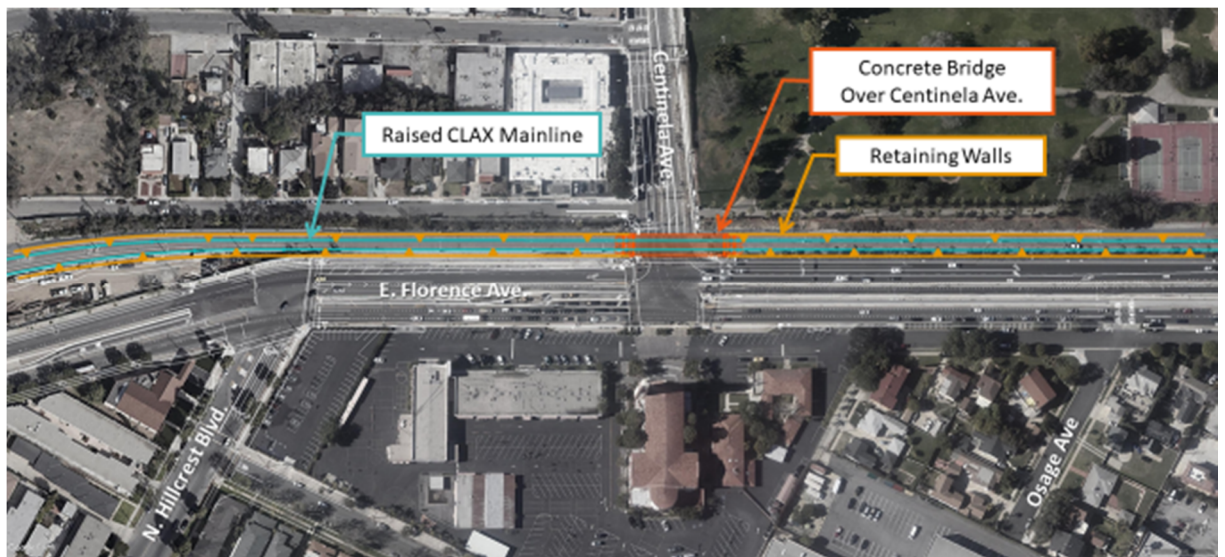
Metro Board action in 2017 directed staff to conduct grade separation feasibility studies and initiate the environmental clearance process to address these concerns. In December 2018 the Metro Board received the initial feasibility findings and directed staff to initiate an engineering design study to be funded in cooperation with the CITY.

2 Proposed Alternatives

2.1 Alternative 1A – LRT Above Grade

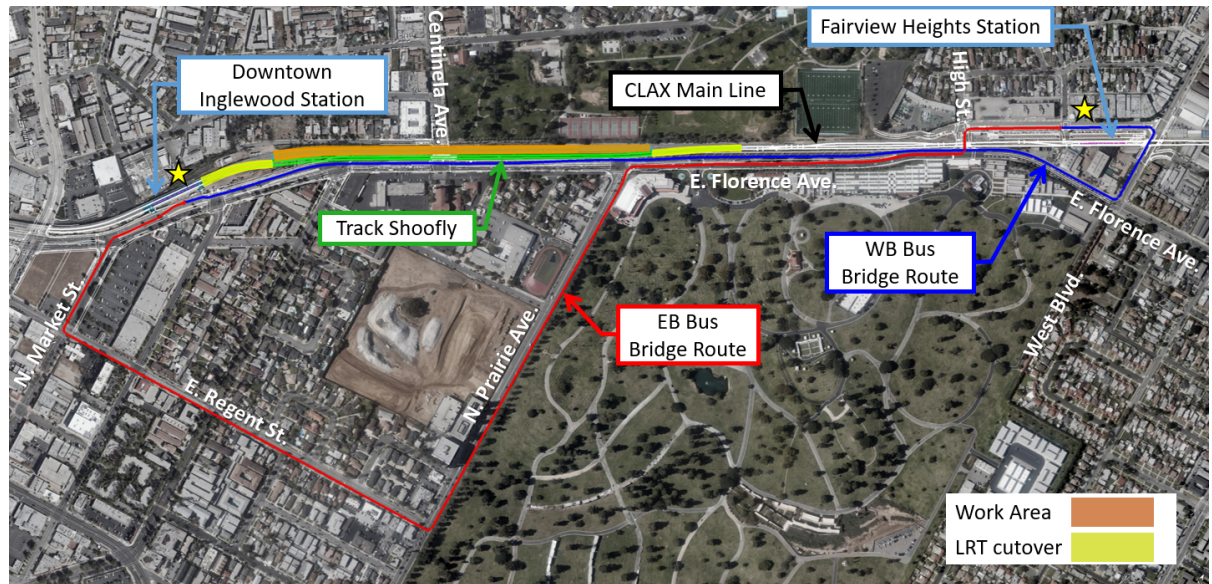
Alternative 1A proposes to elevate the CLAX LRT on retained fill with a precast concrete girder bridge above the Centinela/Florence intersection which would remain at grade. The LRT limits of Alternative 1A extend approximately 2950 feet from just east of the Downtown Inglewood Station to just west of 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

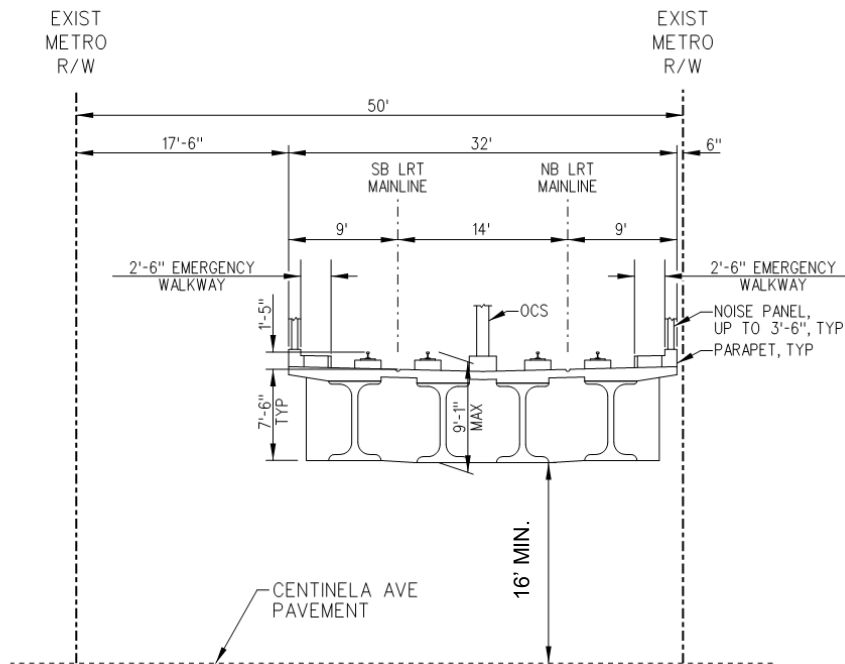
2.1.2 Right-of-Way Requirements and Impacts

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.

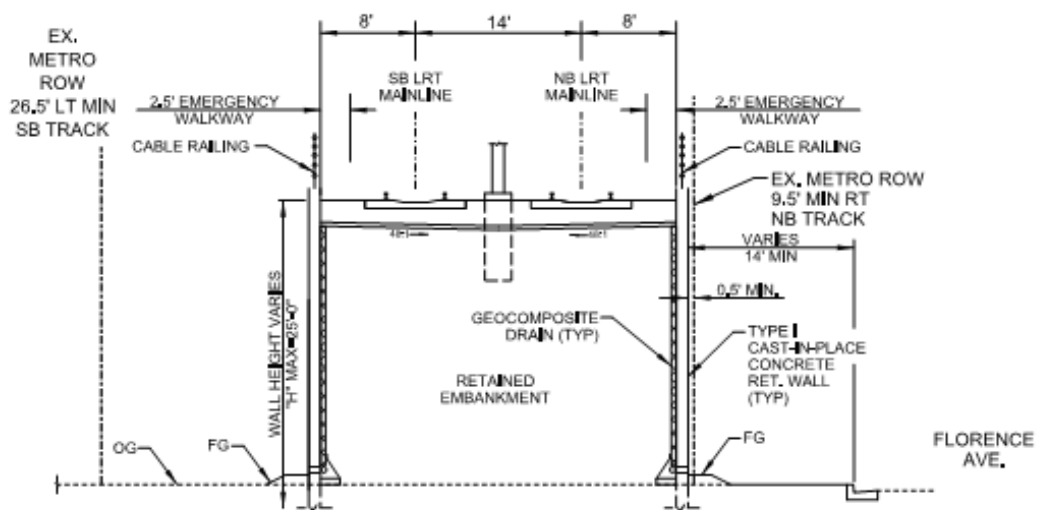
Figure 2-3. Alternative 1A – Preliminary Bridge Section



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.

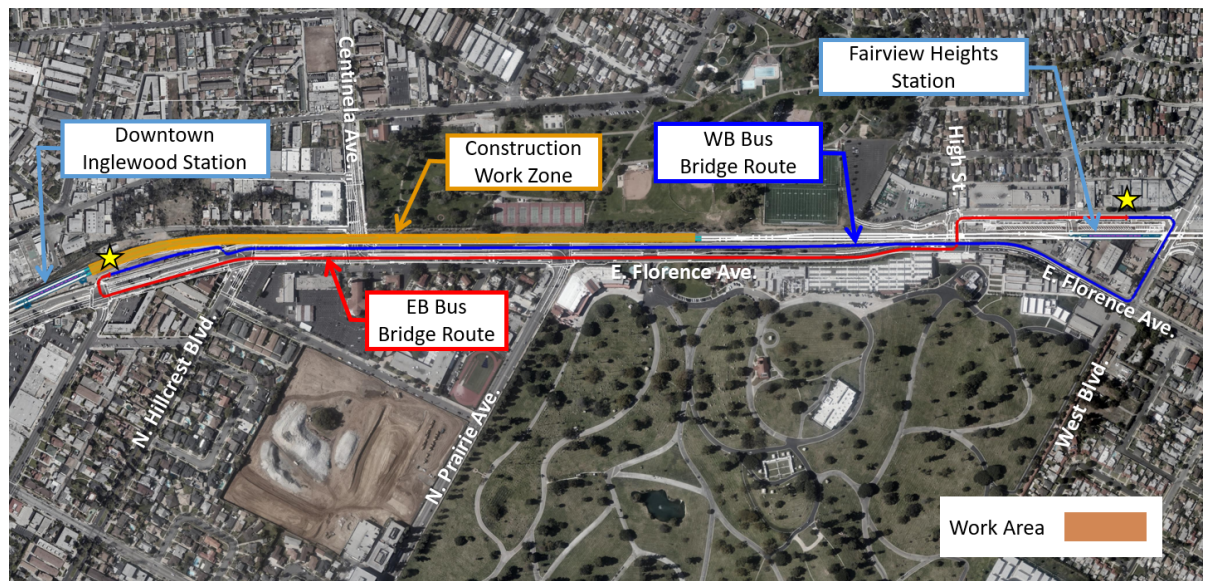
2.1.8 ROM Cost Estimate

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

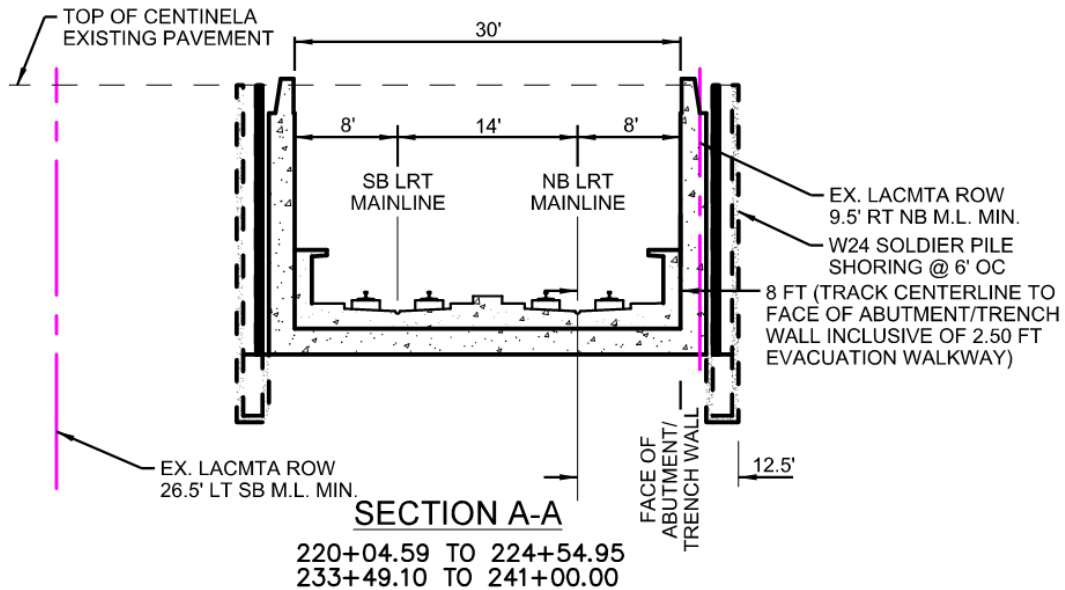
No permanent right-of-way impacts are anticipated at this time.

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.

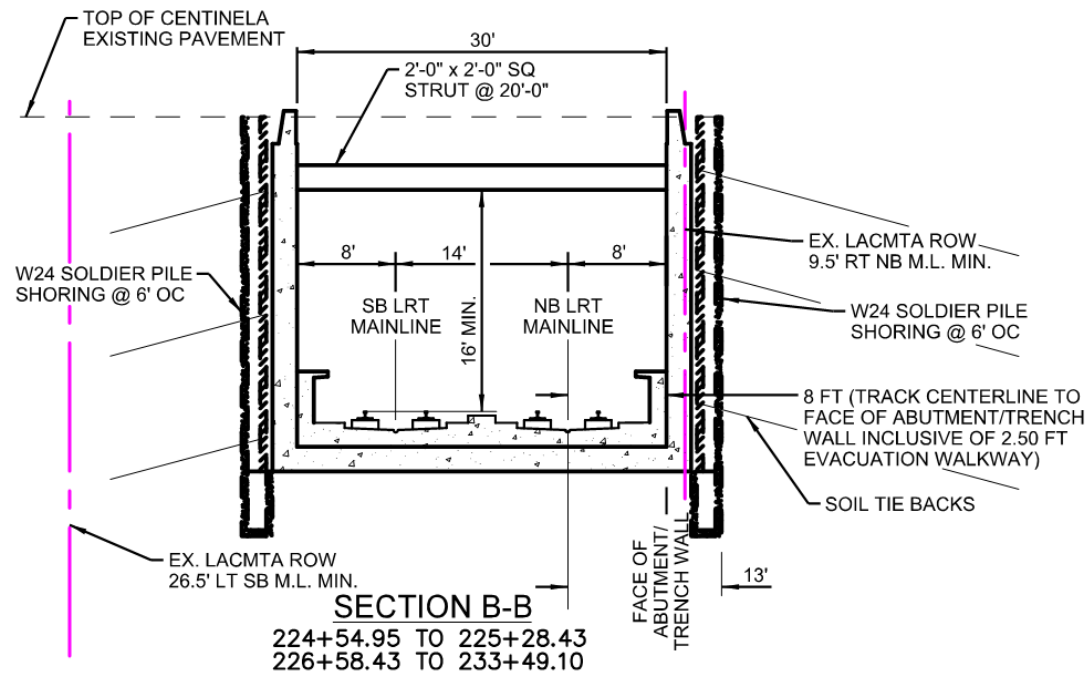
The width of the U-section is 30' between the faces of walls, the length is approximately 540' west of Centinela and 1,440' east of Centinela, and the maximum design height is 32' where the alignment travels below the raised 60" water line. Standard U-section walls are proposed for depths up to 20' below 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

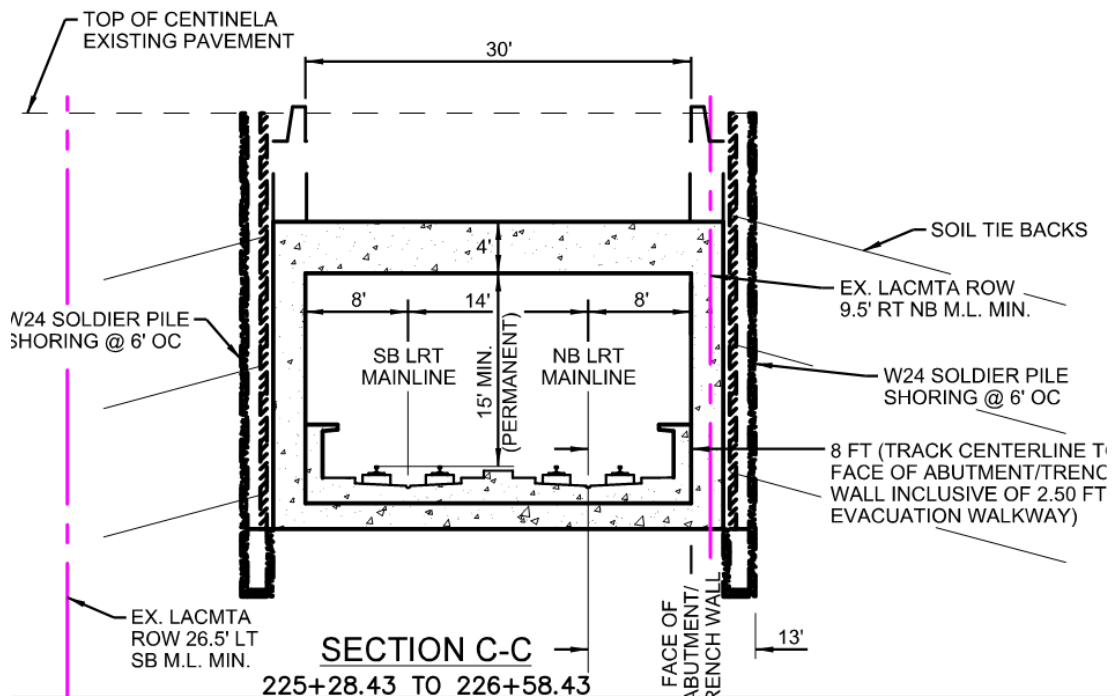
Figure 2-9. Alternative 2 – U-Section with Struts



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

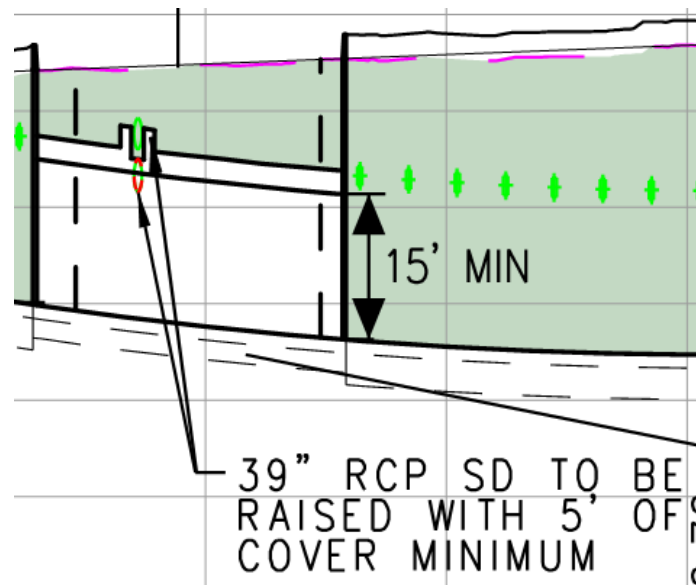
The proposed track profile for Alternative 2 would require the existing 39-inch CITY Storm Drain (ID # 1257) to be raised approximately 4'-4" at its current location and require a support structure to be built integral to the cut-and-cover box roof slab. The drainage implications are noted below and 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.

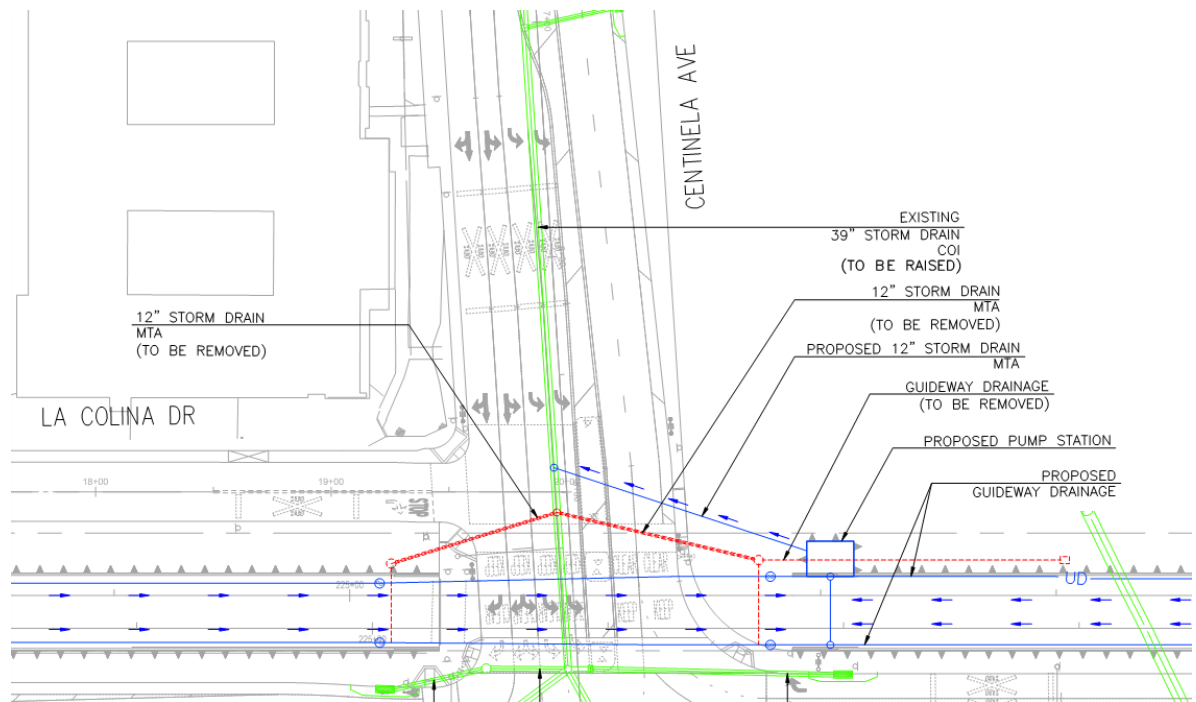
While the existing pipe profile allows raising the pipe, a hydraulic analysis would be required to assess the full extent of drainage modifications associate with raising the storm drain.

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.

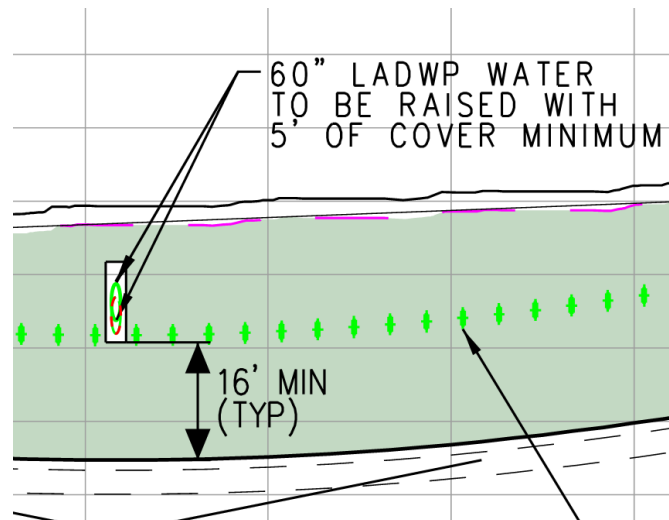
1. Raising the 60" water line in place – Recommended Approach.

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.

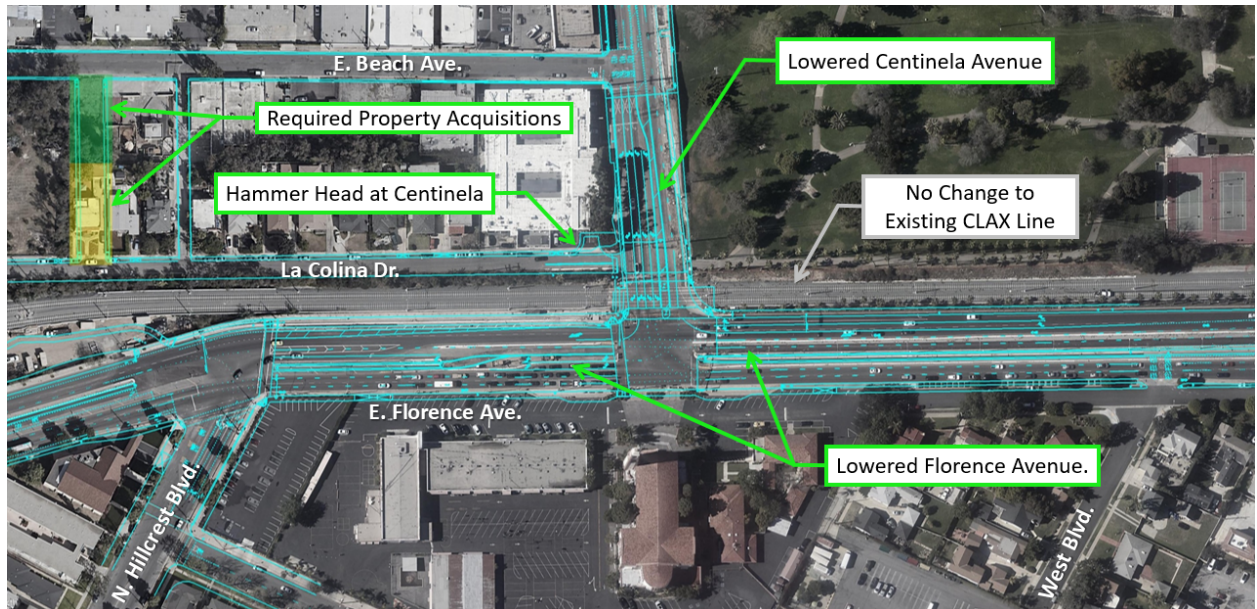
2.4.8 ROM Cost Estimate

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

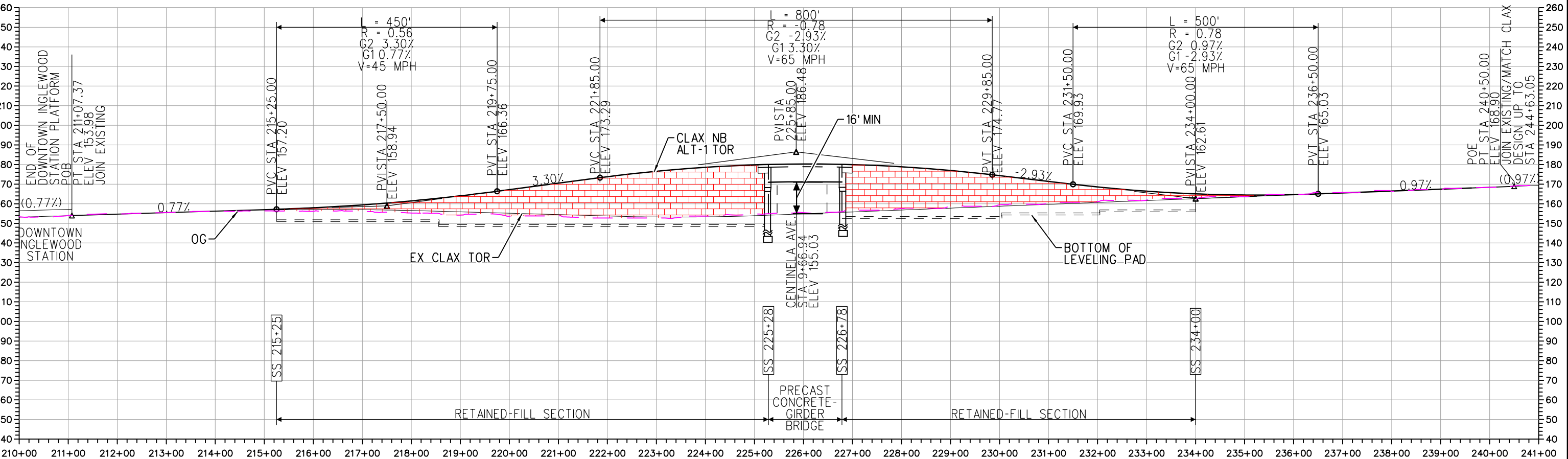
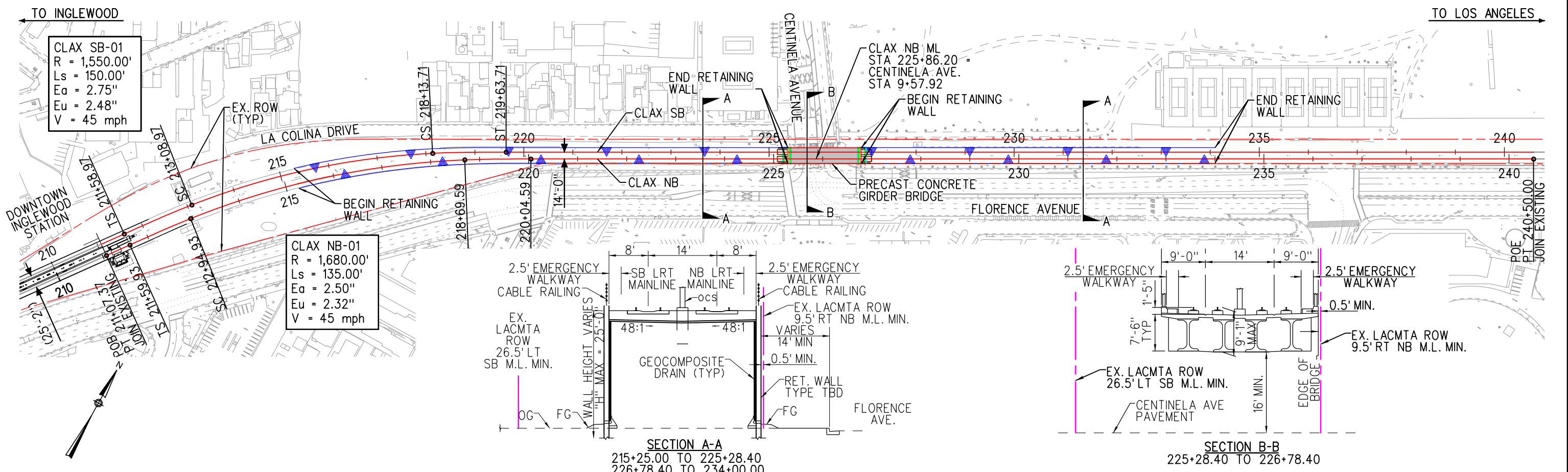
D1 – ALTERNATIVE 1A

D2 – ALTERNATIVE 1B

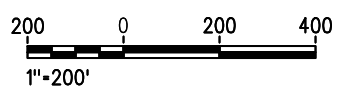
D3 – ALTERNATIVE 2

D4 – ALTERNATIVE 3

Attachment A – Track and Roadway Layouts and Profiles

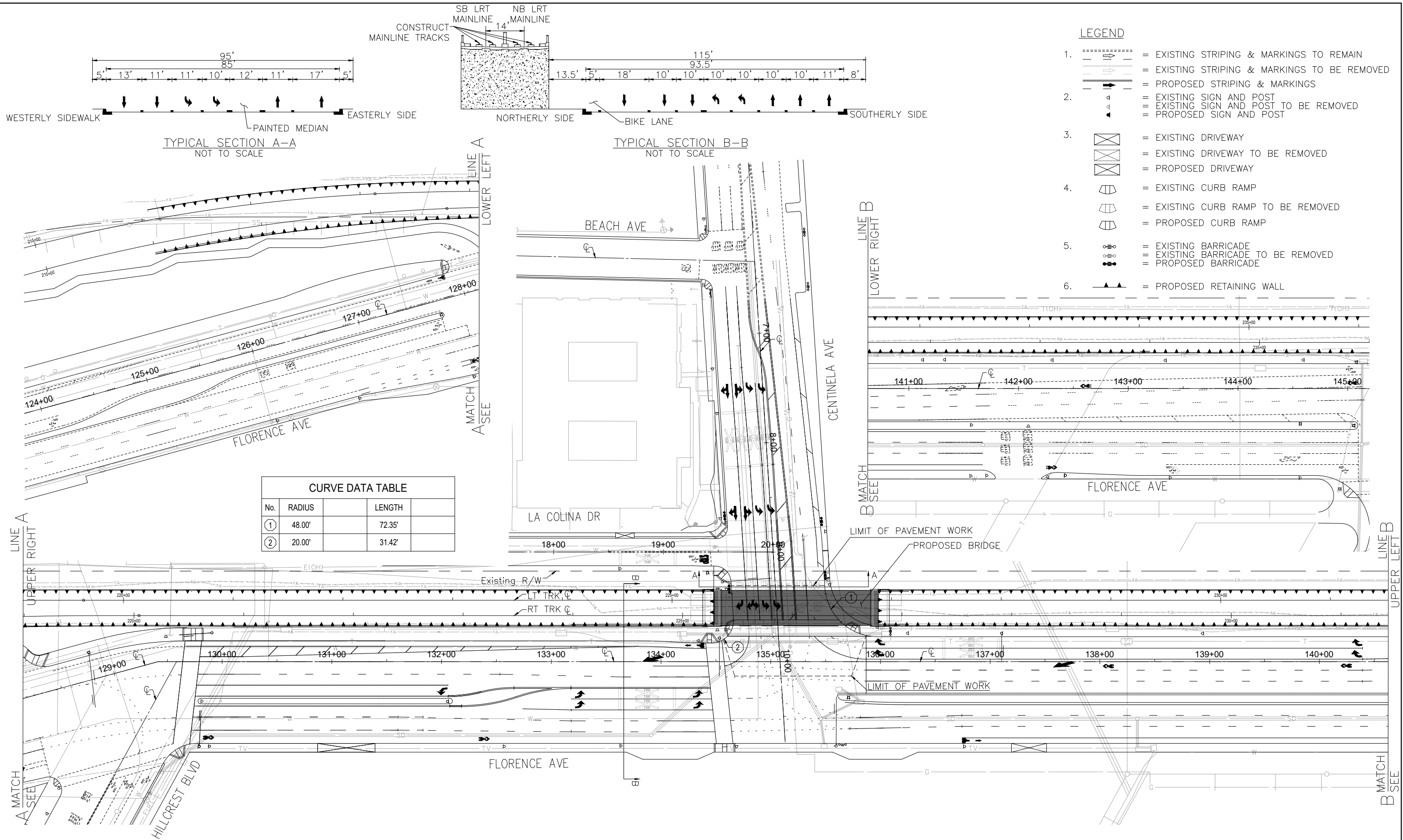


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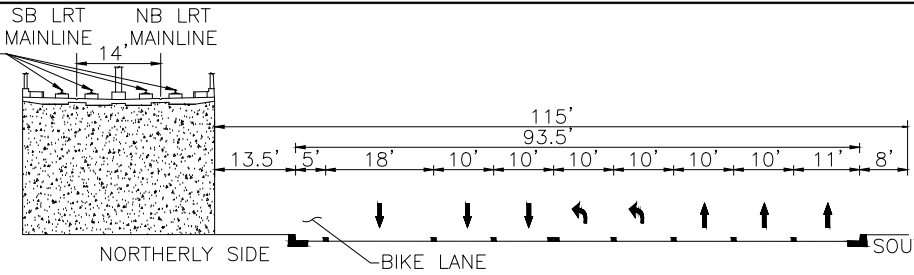
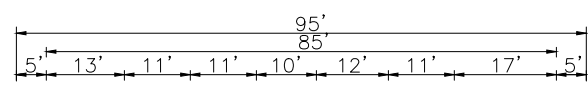


	CENTINELA GRADE SEPARATION		SCALE: 1"=200'
	TRACK PLAN AND PROFILE ALTERNATIVE 1		DATE: 05-15-2020

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

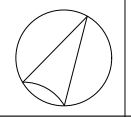


CURVE DATA TABLE

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②	20.00'	31.42'

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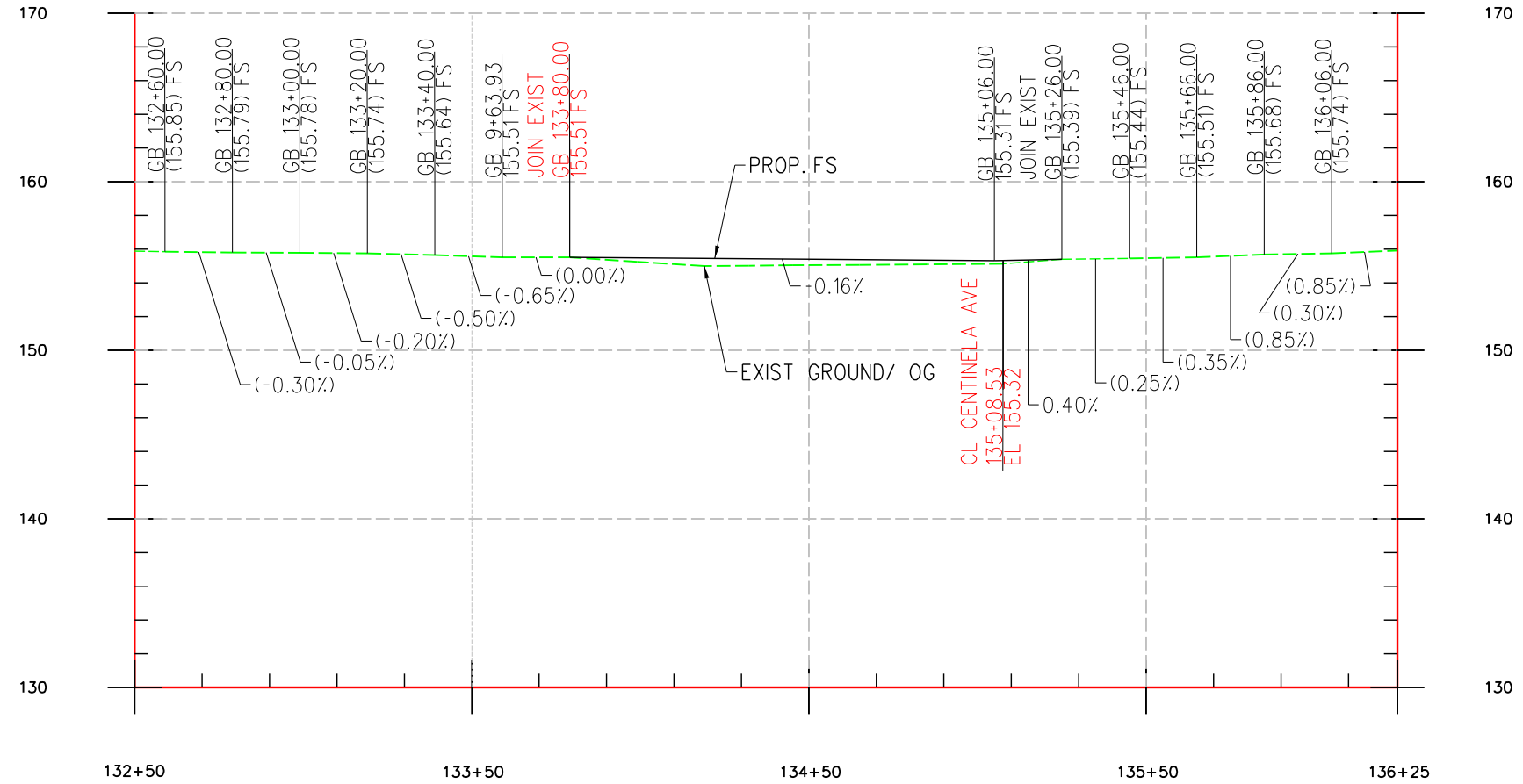
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 PASADENA, CA 91105
 213.972.9700

CENTINELA GRADE SEPARATION
 ALTERNATIVE 1
 LAYOUT

SCALE: 1"=40'
 DATE: 05-13-2020



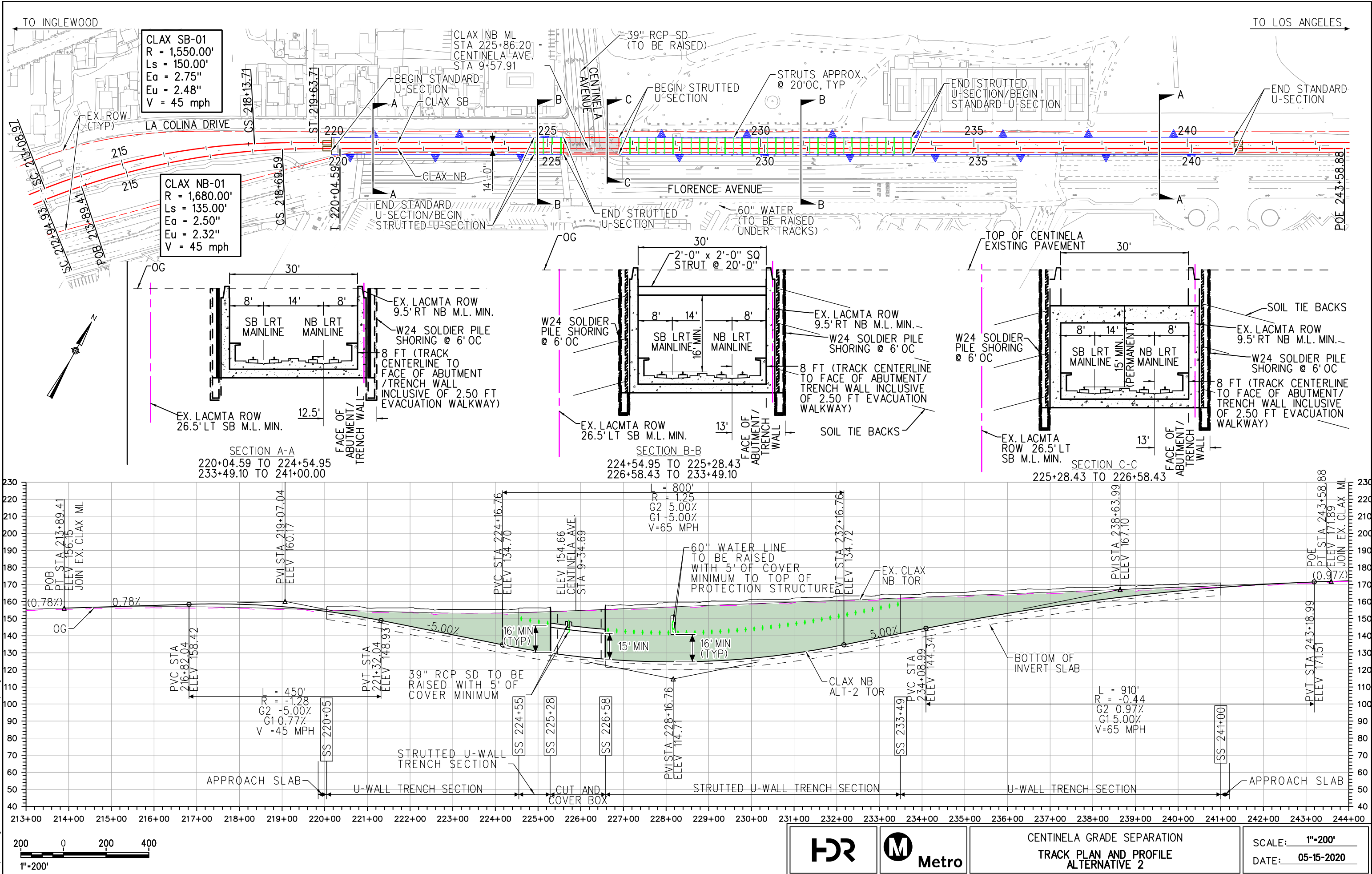
FLORENCE AVENUE CL PROFILE

\$DATE\$
 \$PROJECT\$
 \$SHEET\$
 \$TOTAL\$



CENTINELA GRADE SEPARATION
ROADWAY GEOMETRY
ALTERNATIVE 1

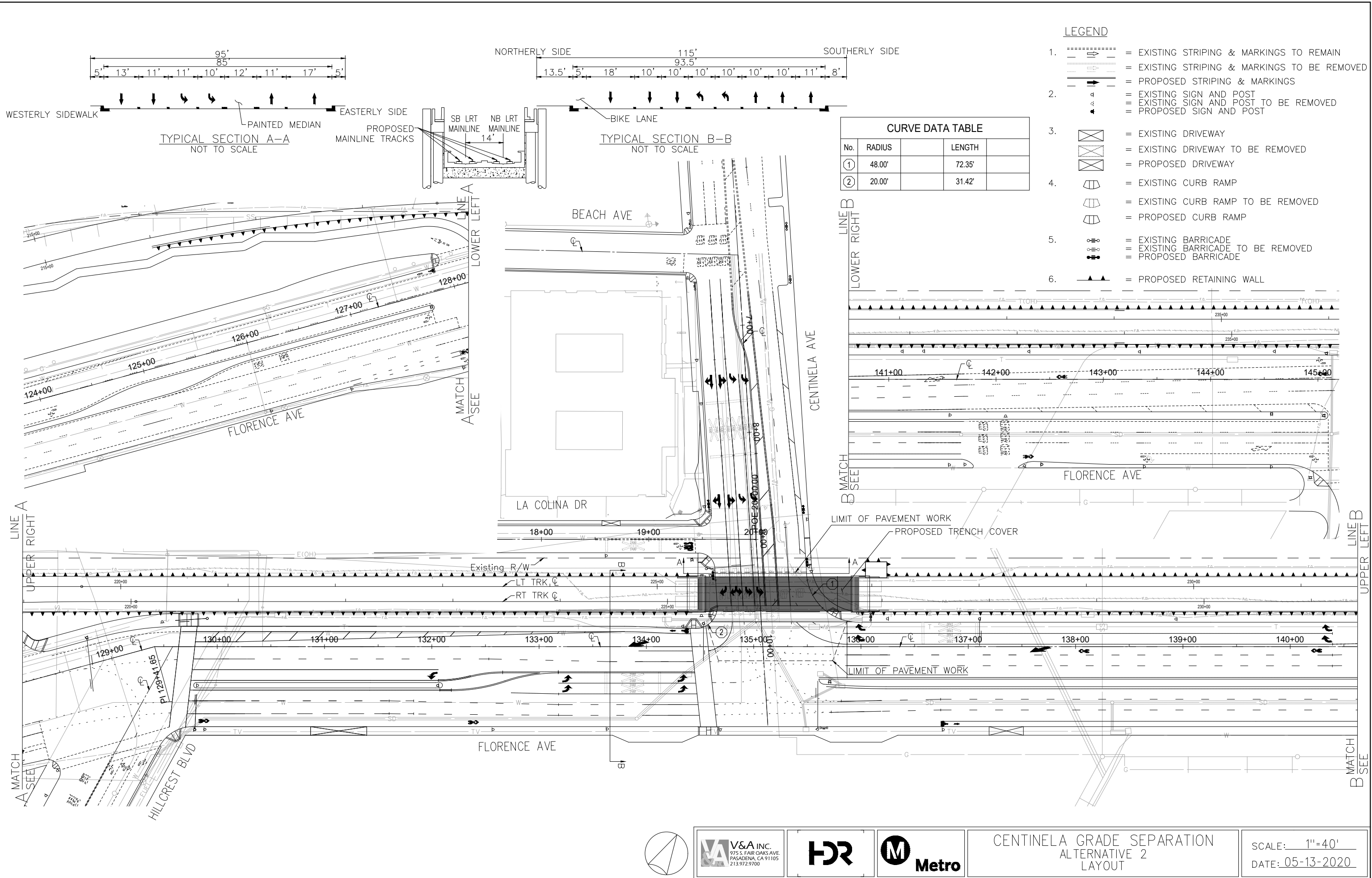
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SCALE: VERT: 1"=10'
DATE: 05-13-2020



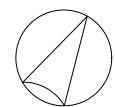
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		CENTINELA GRADE SEPARATION	
		TRACK PLAN AND PROFILE ALTERNATIVE 2	
		SCALE: 1"=200'	DATE: 05-15-2020

A2R - ALTERNATIVE 2 ROADWAY LAYOUT



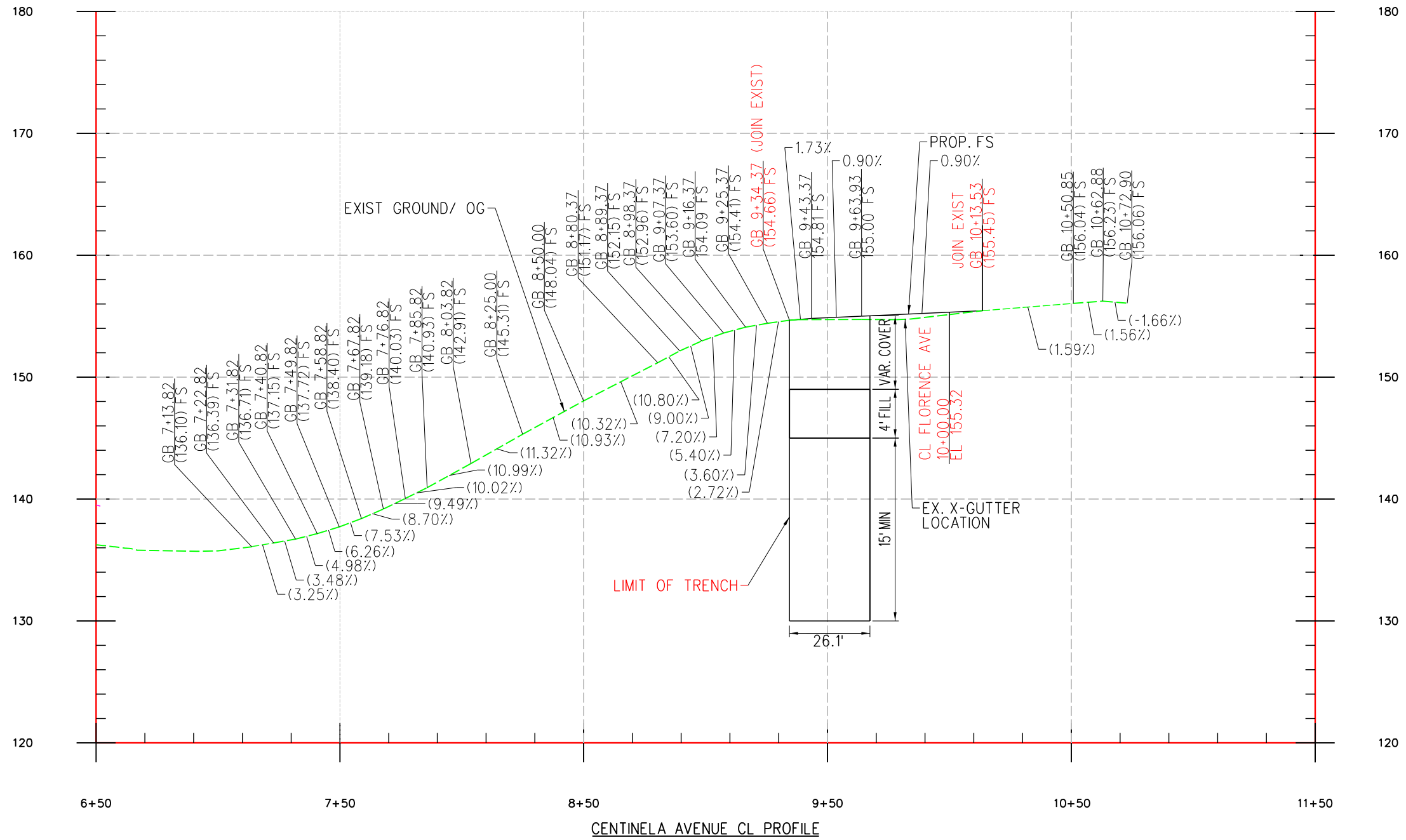
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CENTINELA GRADE SEPARATION
 ALTERNATIVE 2
 LAYOUT

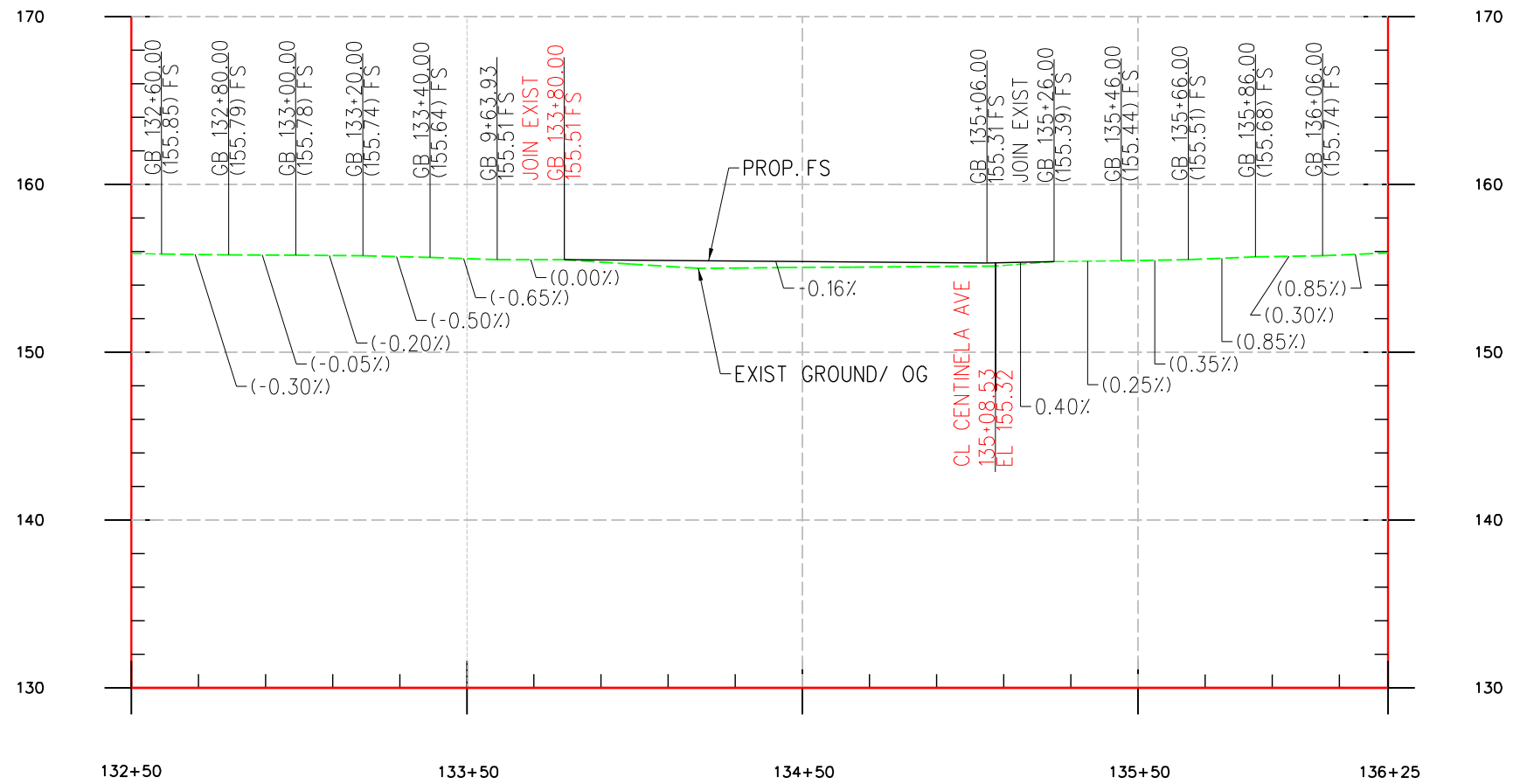
SCALE: 1"=40'
 DATE: 05-13-2020

NOTES:
1. SEE TRACKWORK PLANS (T) FOR TRACK RELATED WORK



DATE: 05-13-2020
 DRAWN BY: J. L. BROWN
 CHECKED BY: J. L. BROWN
 APPROVED BY: J. L. BROWN

<p>V&A INC. 975 S. FAIR OAKS AVE PASADENA, CA 91105 213.972.9700</p>			CENTINELA GRADE SEPARATION	
			ROADWAY GEOMETRY	
			ALTERNATIVE 2	
			HORIZ: 1"=50'	VERT: 1"=10'
			DATE: 05-13-2020	



FLORENCE AVENUE CL PROFILE

\$TIMES

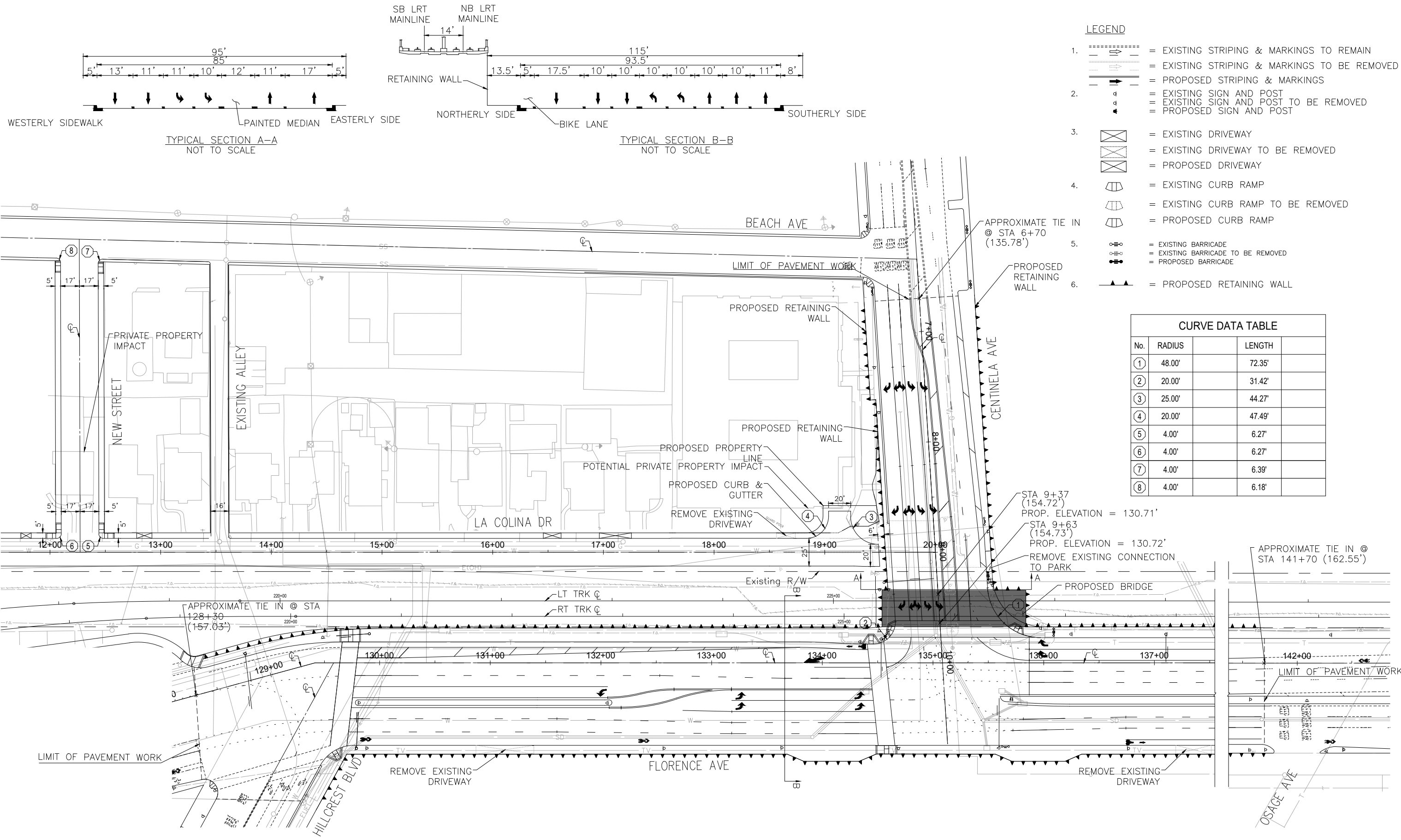
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CENTINELA GRADE SEPARATION
ROADWAY GEOMETRY
ALTERNATIVE 2

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SCALE: VERT: 1"=10'
DATE: 05-13-2020

A3R - ALTERNATIVE 3 ROADWAY LAYOUT



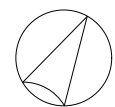
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 - = PROPOSED STRIPING & MARKINGS
 - 2. = EXISTING SIGN AND POST
 - = EXISTING SIGN AND POST TO BE REMOVED
 - = PROPOSED SIGN AND POST
 - 3. = EXISTING DRIVEWAY
 - = EXISTING DRIVEWAY TO BE REMOVED
 - = PROPOSED DRIVEWAY
 - 4. = EXISTING CURB RAMP
 - = 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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③	25.00'	44.27'
④	20.00'	47.49'
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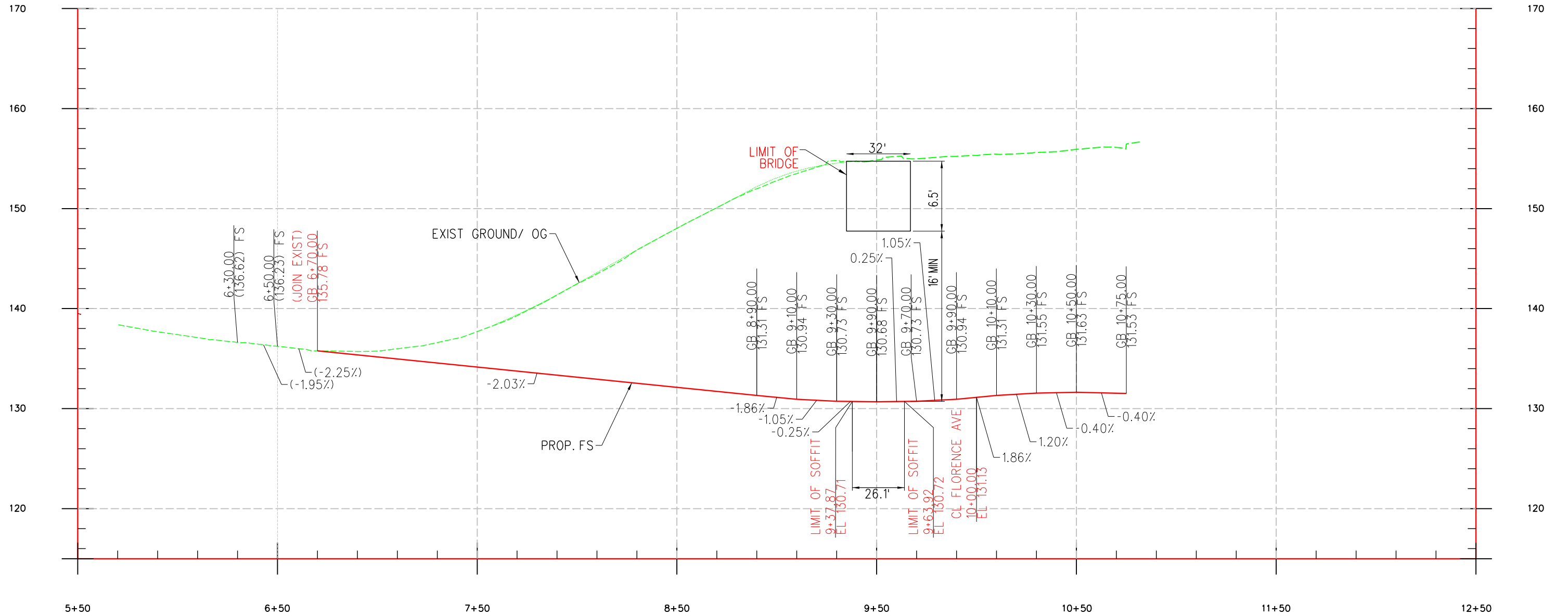


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CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 LAYOUT

SCALE: 1"=40'
 DATE: 05-13-2020



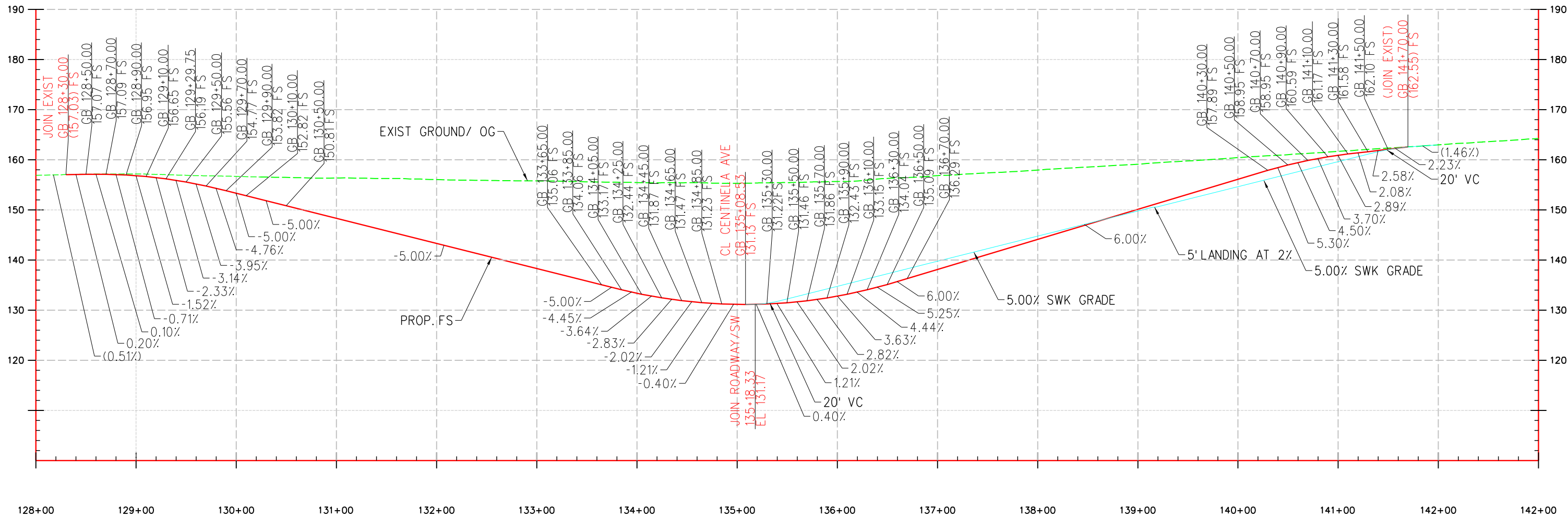
CENTINELA AVENUE CL PROFILE

\$DATE\$
 \$LEVEL\$
 \$PROJECT\$
 \$SHEETNO\$



CENTINELA GRADE SEPARATION
 ROADWAY GEOMETRY
 ALTERNATIVE 3

HORIZ: 1"=50'
 SCALE: VERT: 1"=10'
 DATE: 05-13-2020



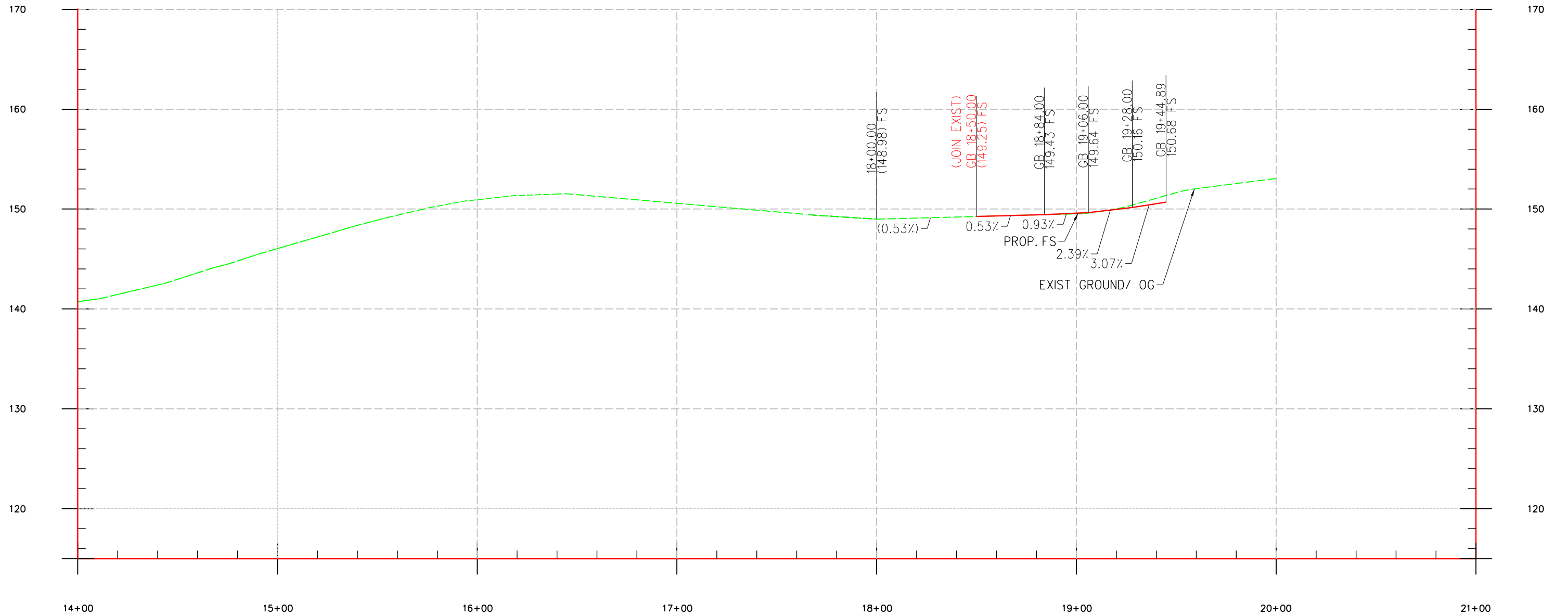
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\$TIMES

\$DATE\$
\$PROJECT\$
\$SHEETNO\$
\$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"=100' SCALE: VERT: 1"=20' DATE: 05-13-2020</p>
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A3R - ALTERNATIVE 3 LA COLINA DR. PROFILE



LA COLINA DR CL PROFILE

\$DATE\$
 \$LEVEL\$
 \$PROJECT\$
 \$SHEETNO\$



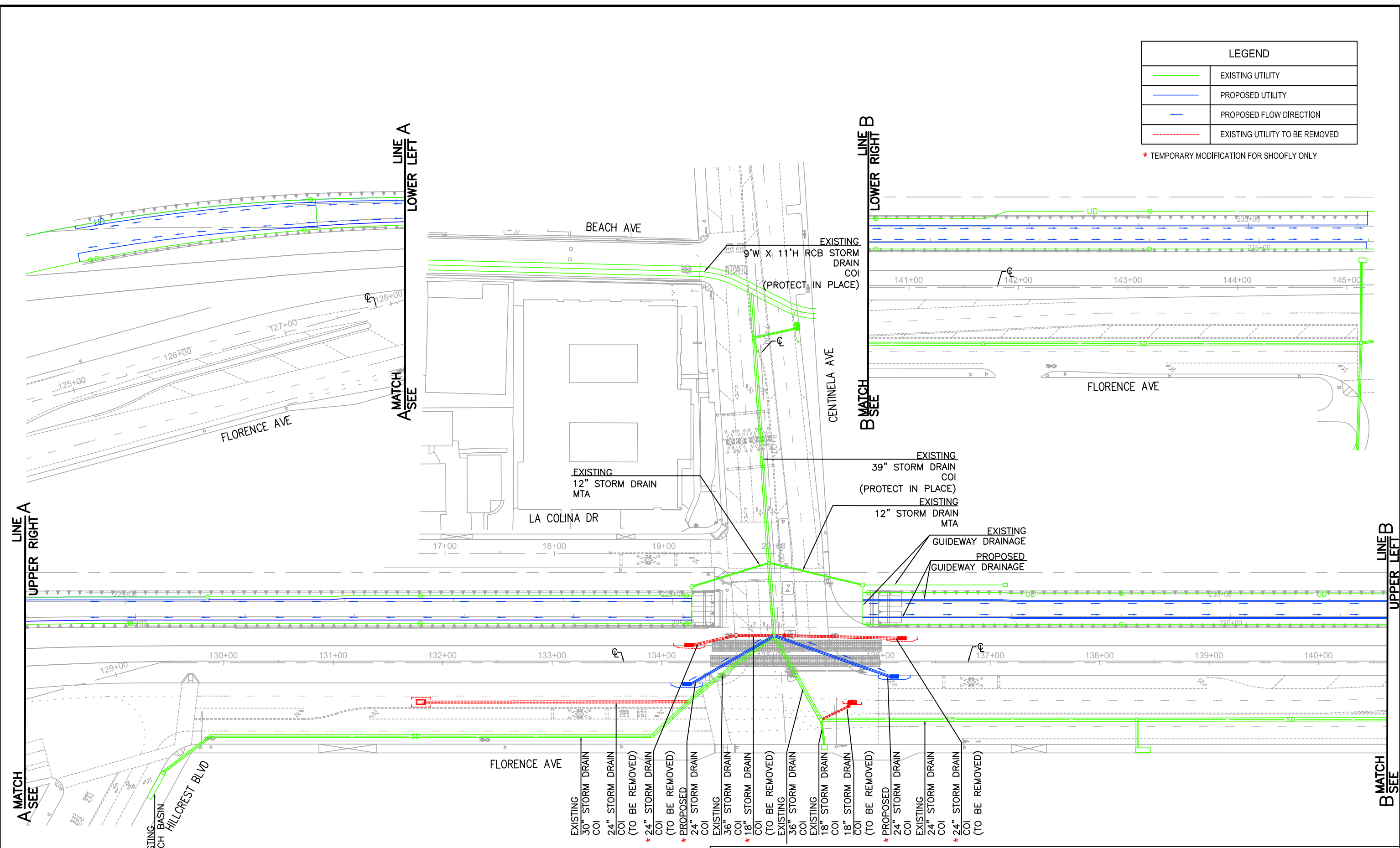
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 ROADWAY GEOMETRY
 ALTERNATIVE 3

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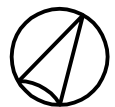
Attachment B – Drainage Exhibits

LEGEND	
	EXISTING UTILITY
	PROPOSED UTILITY
	PROPOSED FLOW DIRECTION
	EXISTING UTILITY TO BE REMOVED

* TEMPORARY MODIFICATION FOR SHOOFLY ONLY



DATE: 05-13-2020
 SCALE: 1"=40'
 SHEET: B1
 PROJECT: CENTINELA GRADE SEPARATION



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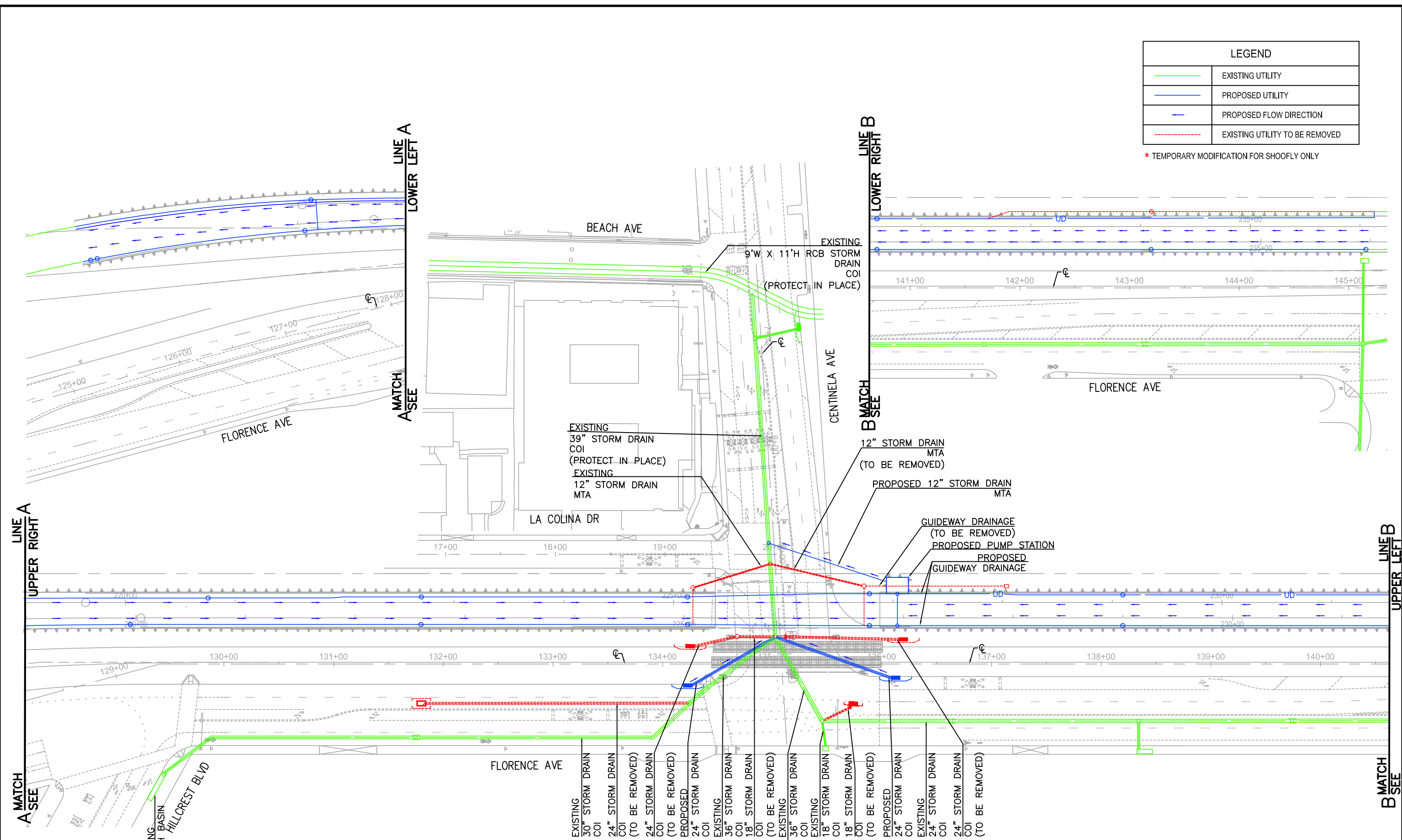
**CENTINELA GRADE SEPARATION
 ALTERNATIVE 1 - LRT ABOVE GRADE
 DRAINAGE EXHIBIT**

SCALE: 1"=40'
 DATE: 05-13-2020

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LEGEND	
	EXISTING UTILITY
	PROPOSED UTILITY
	PROPOSED FLOW DIRECTION
	EXISTING UTILITY TO BE REMOVED

* TEMPORARY MODIFICATION FOR SHOOFLY ONLY



DATE: 05-13-2020
 SCALE: 1"=40'
 SHEET: B2
 PROJECT: CENTINELA GRADE SEPARATION ALTERNATIVE 2 - LRT BELOW GRADE DRAINAGE EXHIBIT

- EXISTING 30" STORM DRAIN COI
- 24" STORM DRAIN COI (TO BE REMOVED)
- * 24" STORM DRAIN COI (TO BE REMOVED)
- * PROPOSED 24" STORM DRAIN COI
- EXISTING 36" STORM DRAIN COI
- * 18" STORM DRAIN COI (TO BE REMOVED)
- EXISTING 36" STORM DRAIN COI
- EXISTING 18" STORM DRAIN COI
- 18" STORM DRAIN COI (TO BE REMOVED)
- * PROPOSED 24" STORM DRAIN COI
- EXISTING 24" STORM DRAIN COI
- * 24" STORM DRAIN COI (TO BE REMOVED)



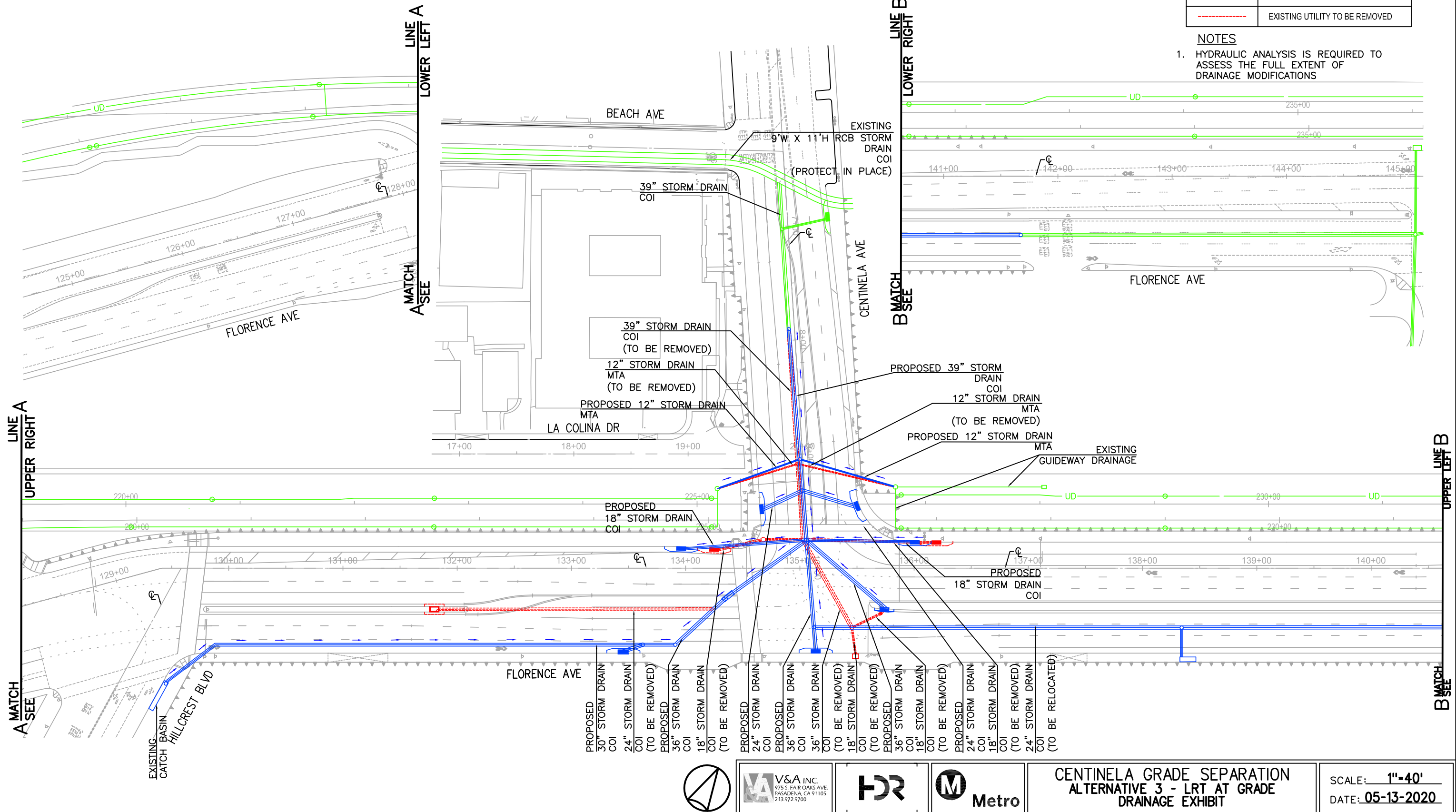
CENTINELA GRADE SEPARATION ALTERNATIVE 2 - LRT BELOW GRADE DRAINAGE EXHIBIT

SCALE: 1"=40'
 DATE: 05-13-2020

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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
 SCALE: 1"=40'
 SHEET: B3
 PROJECT: CENTINELA GRADE SEPARATION



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 213.972.9700



**CENTINELA GRADE SEPARATION
 ALTERNATIVE 3 - LRT AT GRADE
 DRAINAGE EXHIBIT**

SCALE: 1"=40'
 DATE: 05-13-2020

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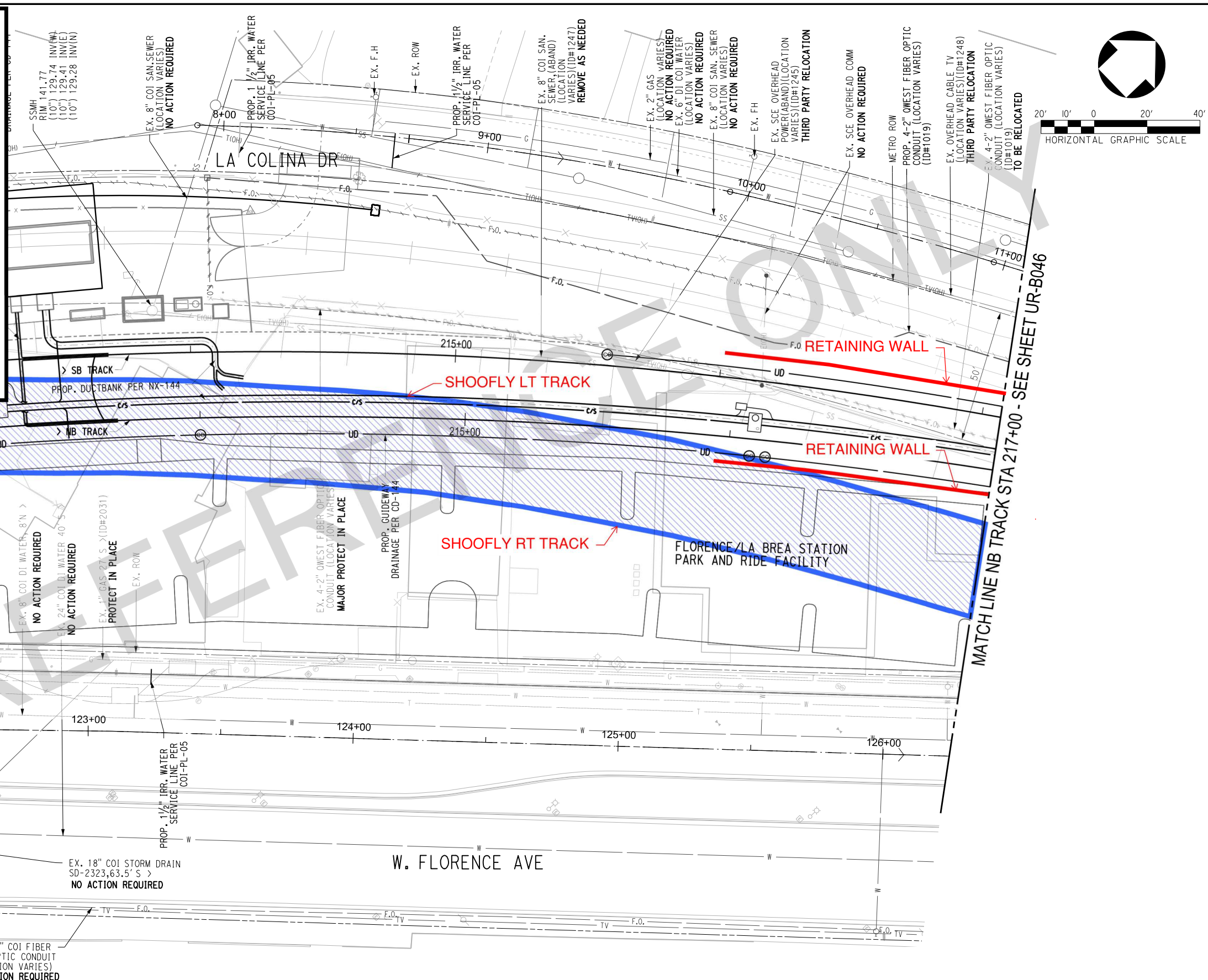
Attachment C – Utility Exhibits

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

EA INC.
 THE ENGINEERING EXCELLENCE

ALTERNATIVE 1
AERIAL EXHIBIT

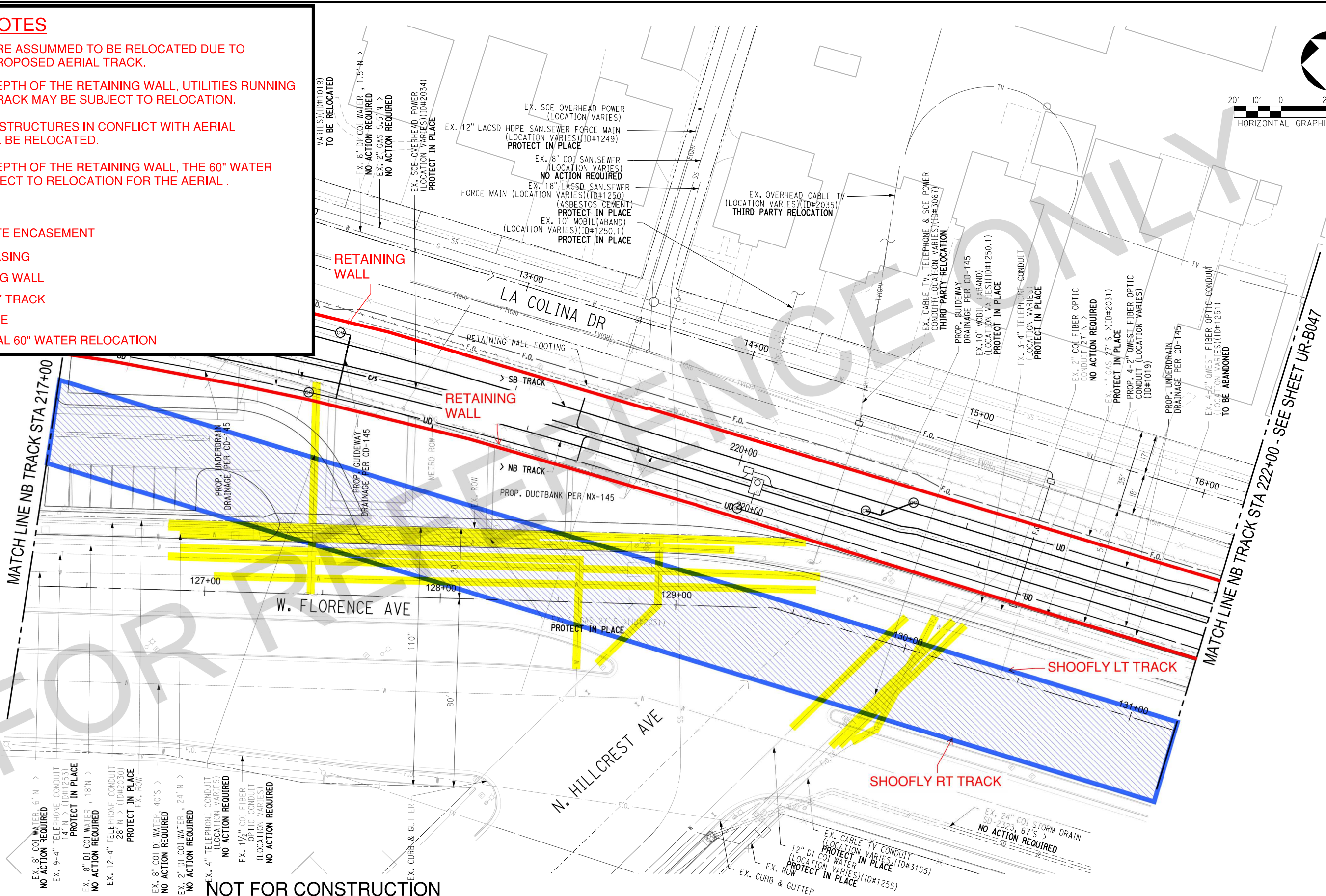
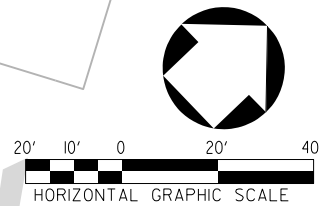
24-FEB-2016 09:05 USER: smalley P:\mtr\352\mb\cpl\design\Bldg\Documents\Walt\595951_Cresnew\LAX Transit Corridor\Design Post-Award\CADD\Utility_Sheets\C0988\URB030.dwg P:\mtr\352\mb\cpl\design\Bldg\Documents\Walt\595951_Cresnew\LAX Transit Corridor\Design Post-Award\CADD\Utility_Sheets\C0988\URB030.dwg

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



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 DI 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

NOT FOR CONSTRUCTION

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

EA INC.
 TRUE ENGINEERING EXCELLENCE

**ALTERNATIVE 1
 AERIAL EXHIBIT**

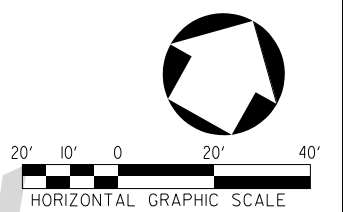
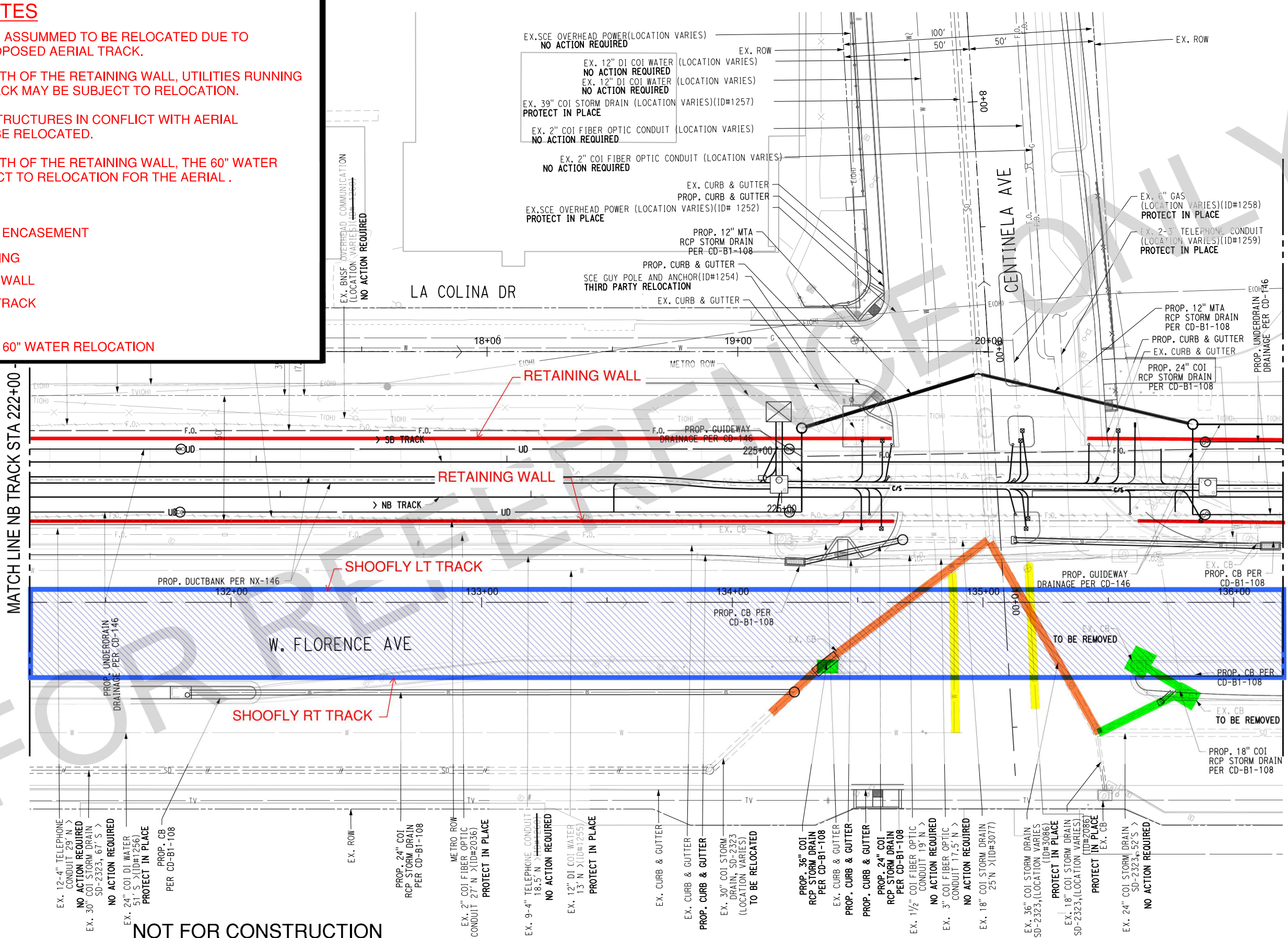
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 Penable: CVD/pe
 USER: smalley

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

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 EXCELLENCE

**ALTERNATIVE 1
 AERIAL EXHIBIT**

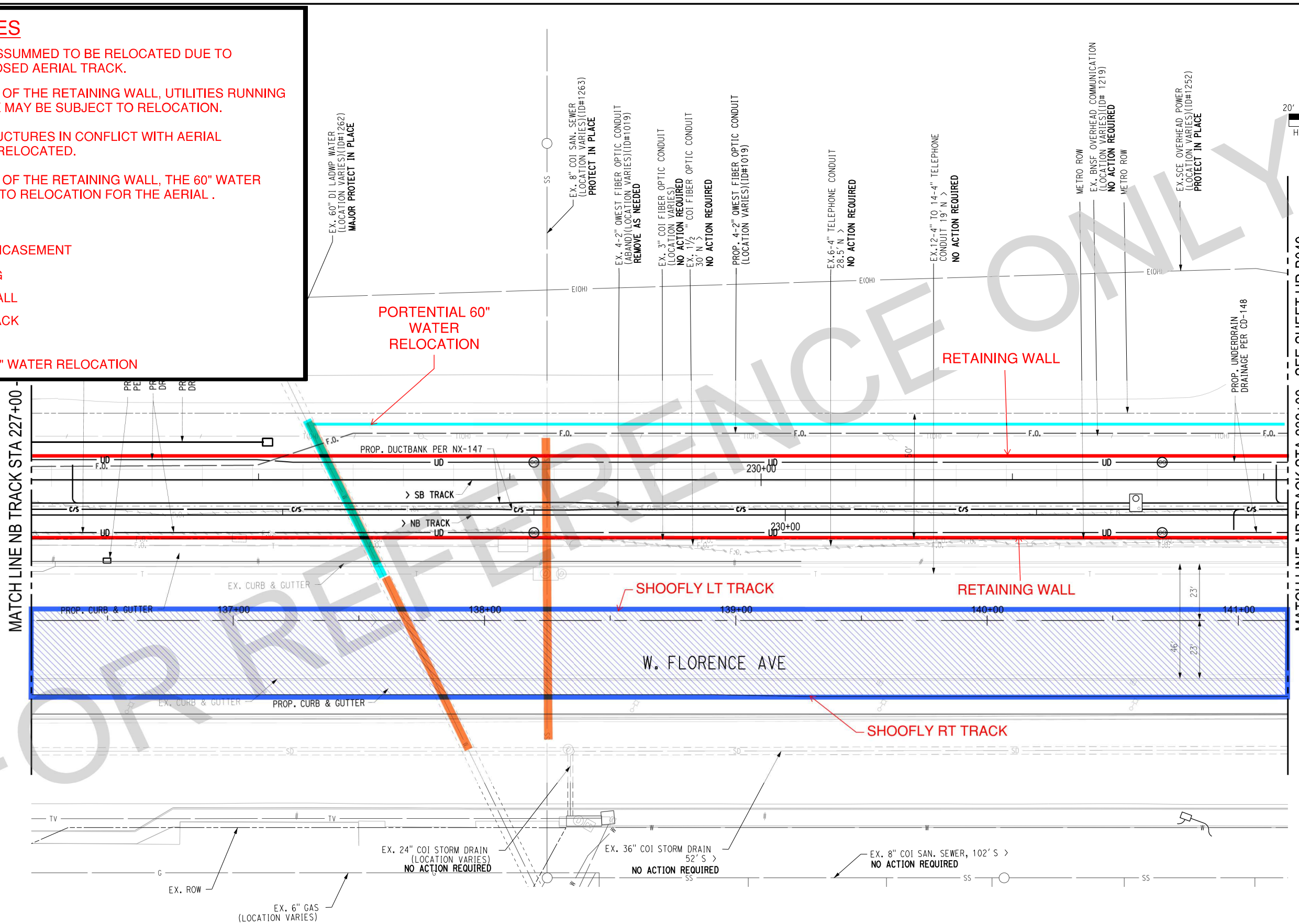
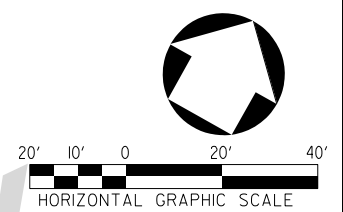
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GENERAL NOTES

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

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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

EA INC.
 TRUE ENGINEERING EXCELLENCE

**ALTERNATIVE 1
 AERIAL EXHIBIT**

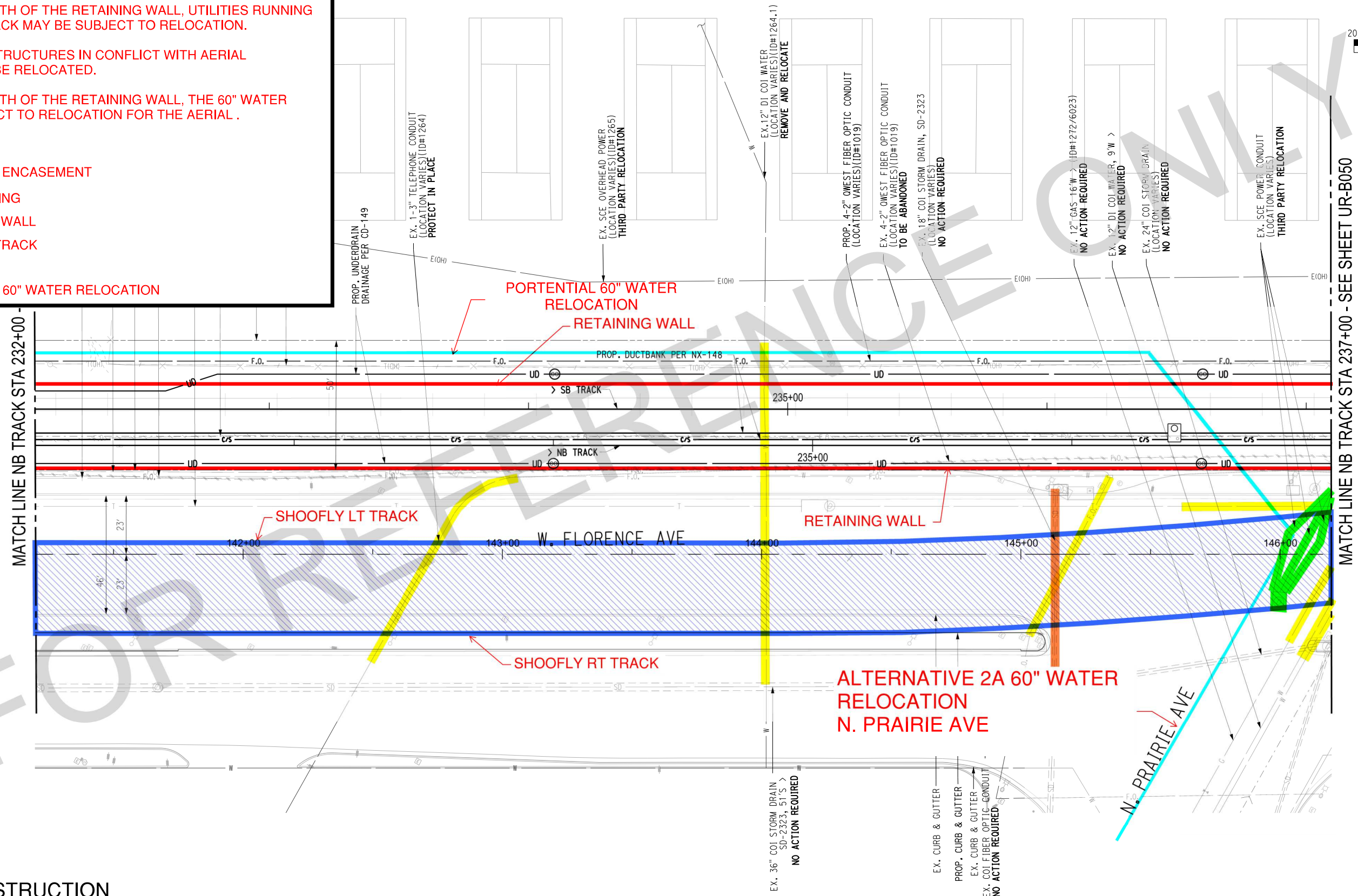
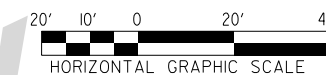
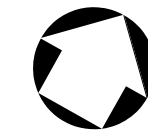
24-FEB-2016 09:36 USER= smalley P01 Draw= SPLTDRAWSS Penable= CVD.pen

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

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DESIGNED BY	
DRAWN BY	
CHECKED BY	
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DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
THE ENGINEERING EXCELLENCE

**ALTERNATIVE 1
AERIAL EXHIBIT**

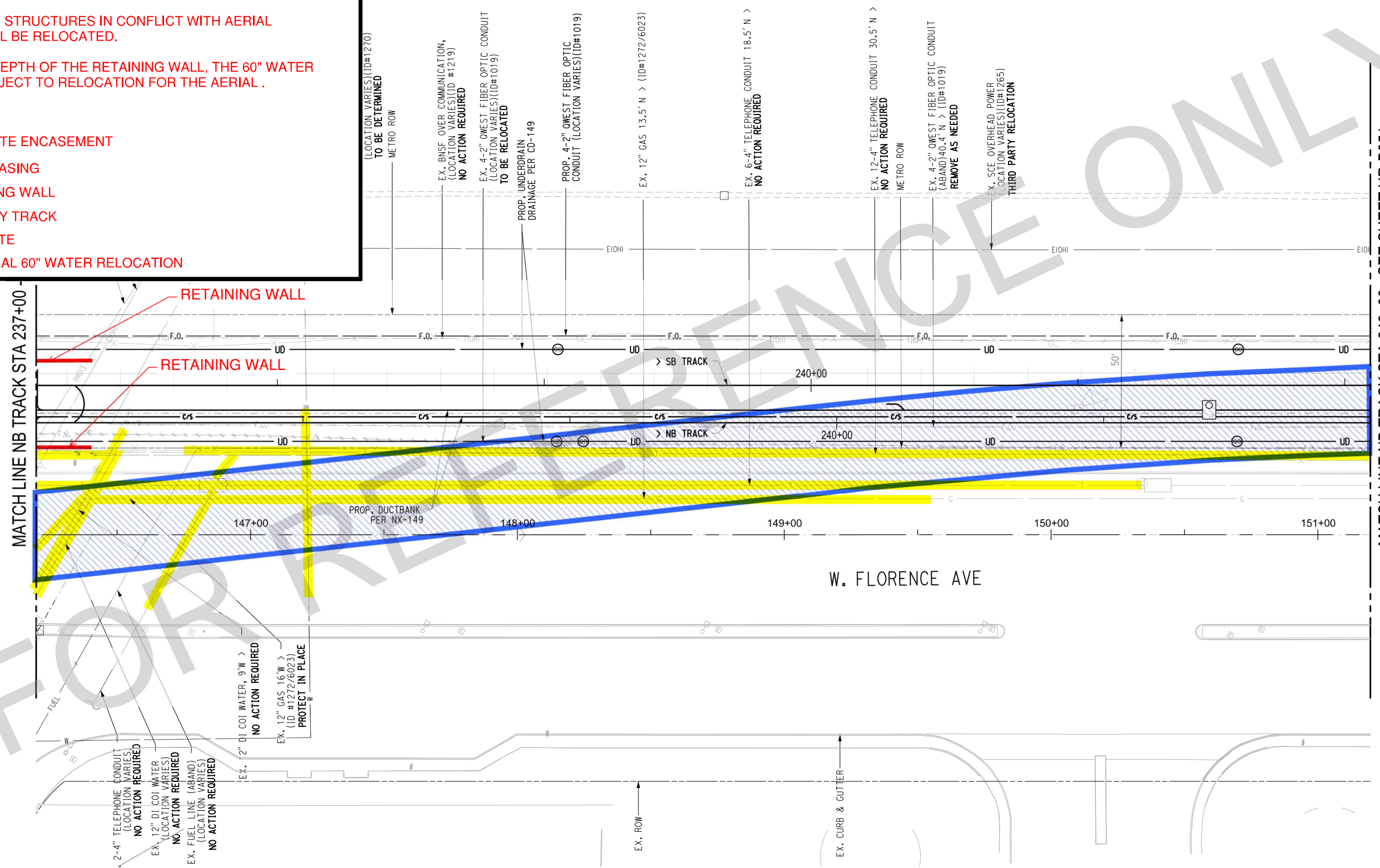
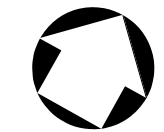
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 Penable: CVD,pen
 P01 Drive: SPTDRVSS

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 237+00

MATCH LINE NB TRACK STA 242+00 - SEE SHEET UR-B051

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






ALTERNATIVE 1
AERIAL EXHIBIT

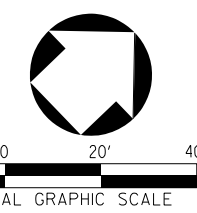
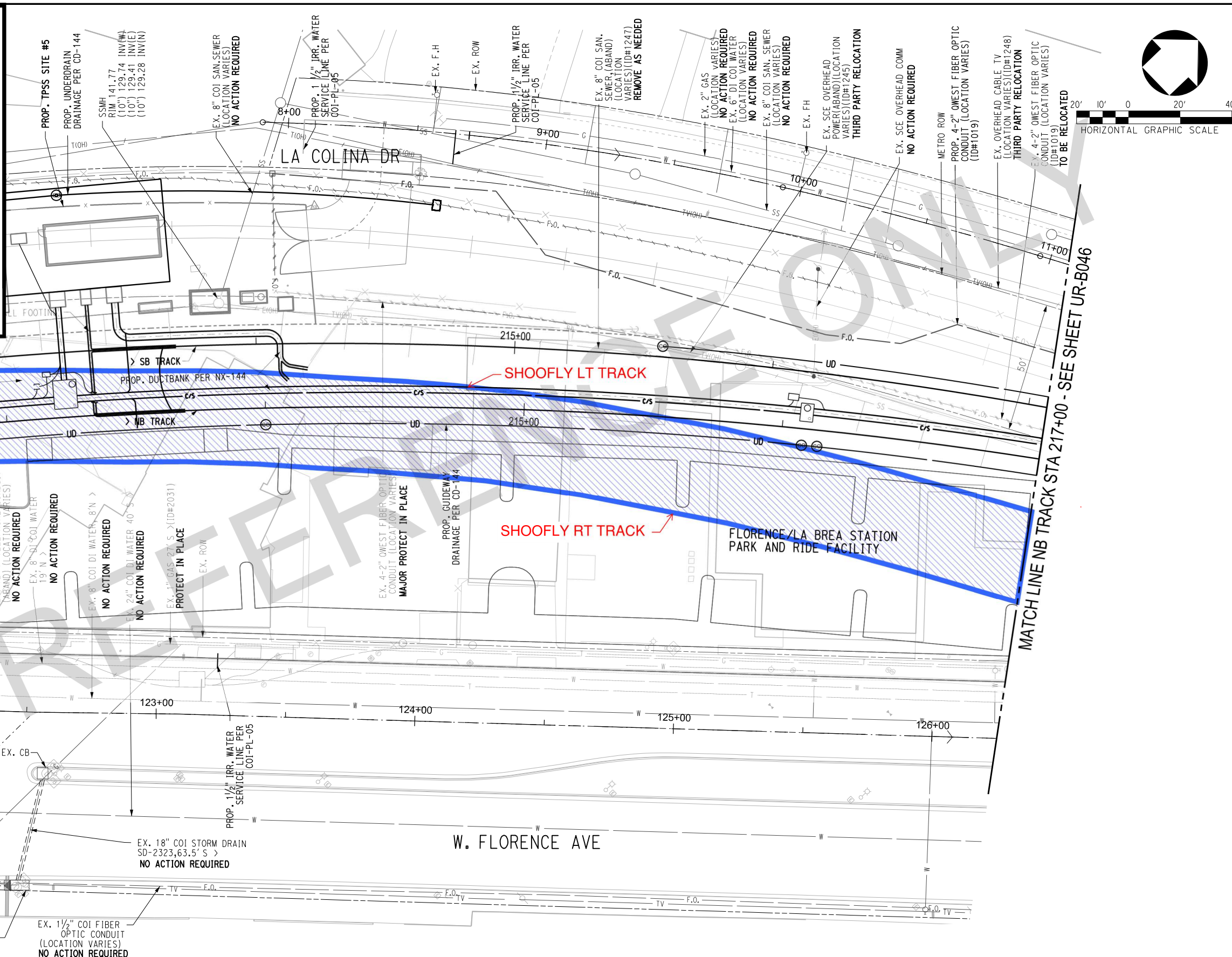
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 PLOT DATE= 12/10/19
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GENERAL NOTES

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

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

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 2
 BELOW GRADE**

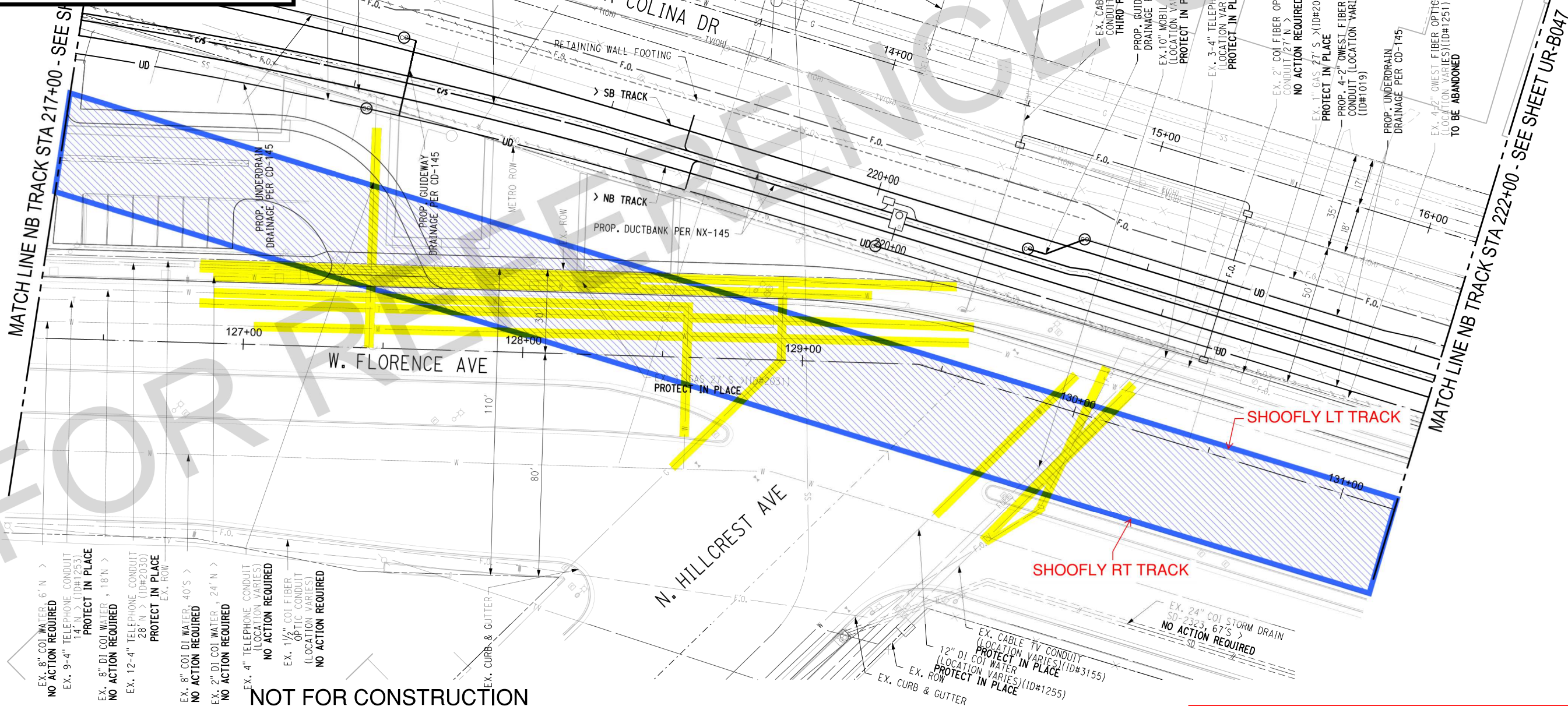
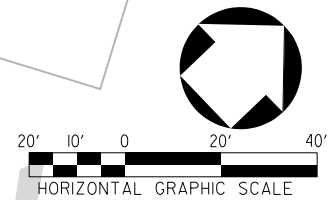
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GENERAL NOTES

1. ALL EXISTING UTILITY DEPTHS TO BE FIELD VERIFIED AND POSSIBLY TEMPORARILY HUNG.
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



NOT FOR CONSTRUCTION

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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.
 TRANSPORTATION ENGINEERING






**ALTERNATIVE 2
 BELOW GRADE**

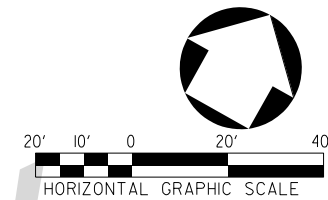
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GENERAL NOTES

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.

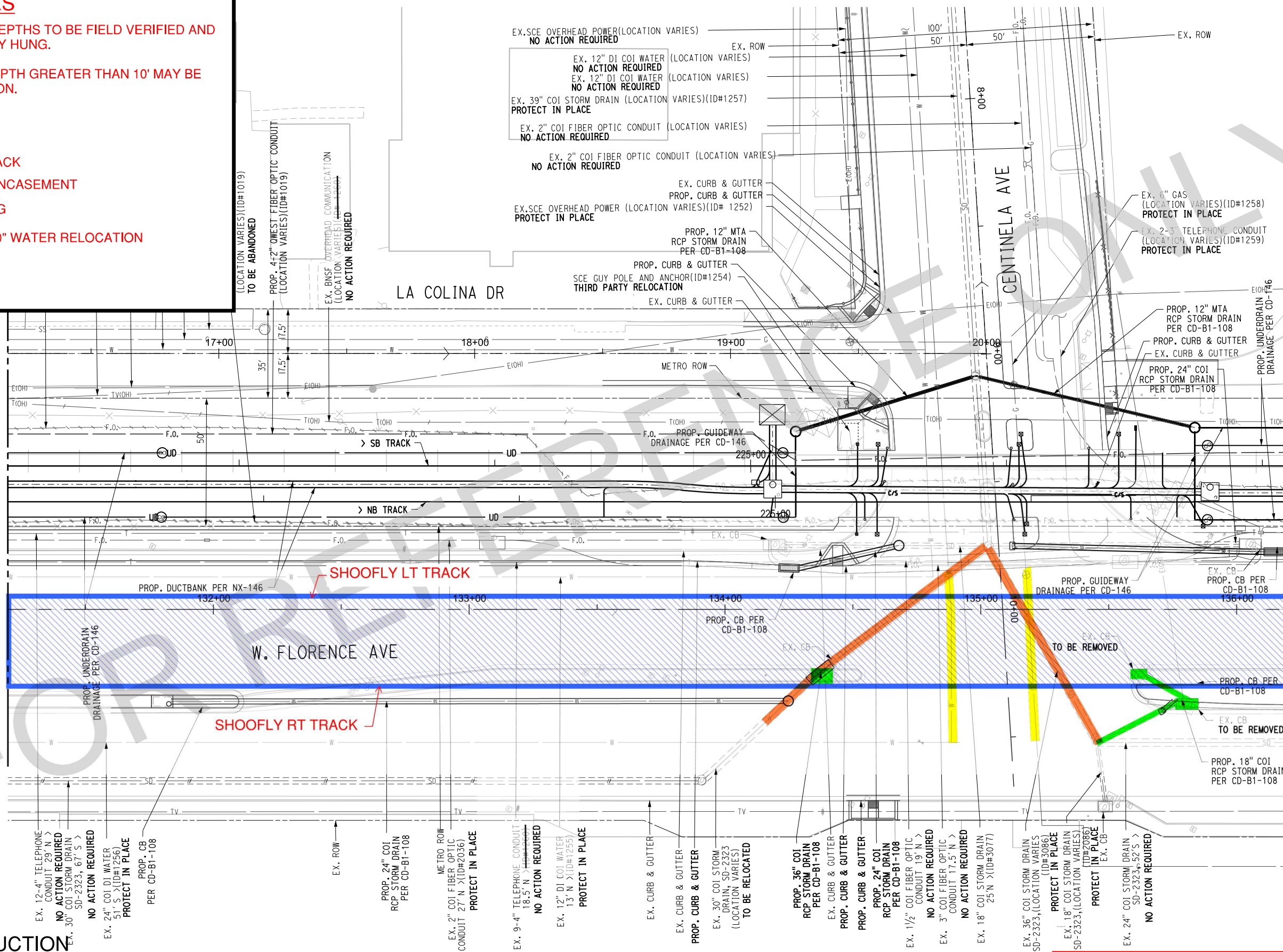
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 222+00 - SEE SH

MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR-B048



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

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 2
 BELOW GRADE**

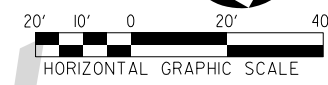
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 Penable: CVD,jea

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.

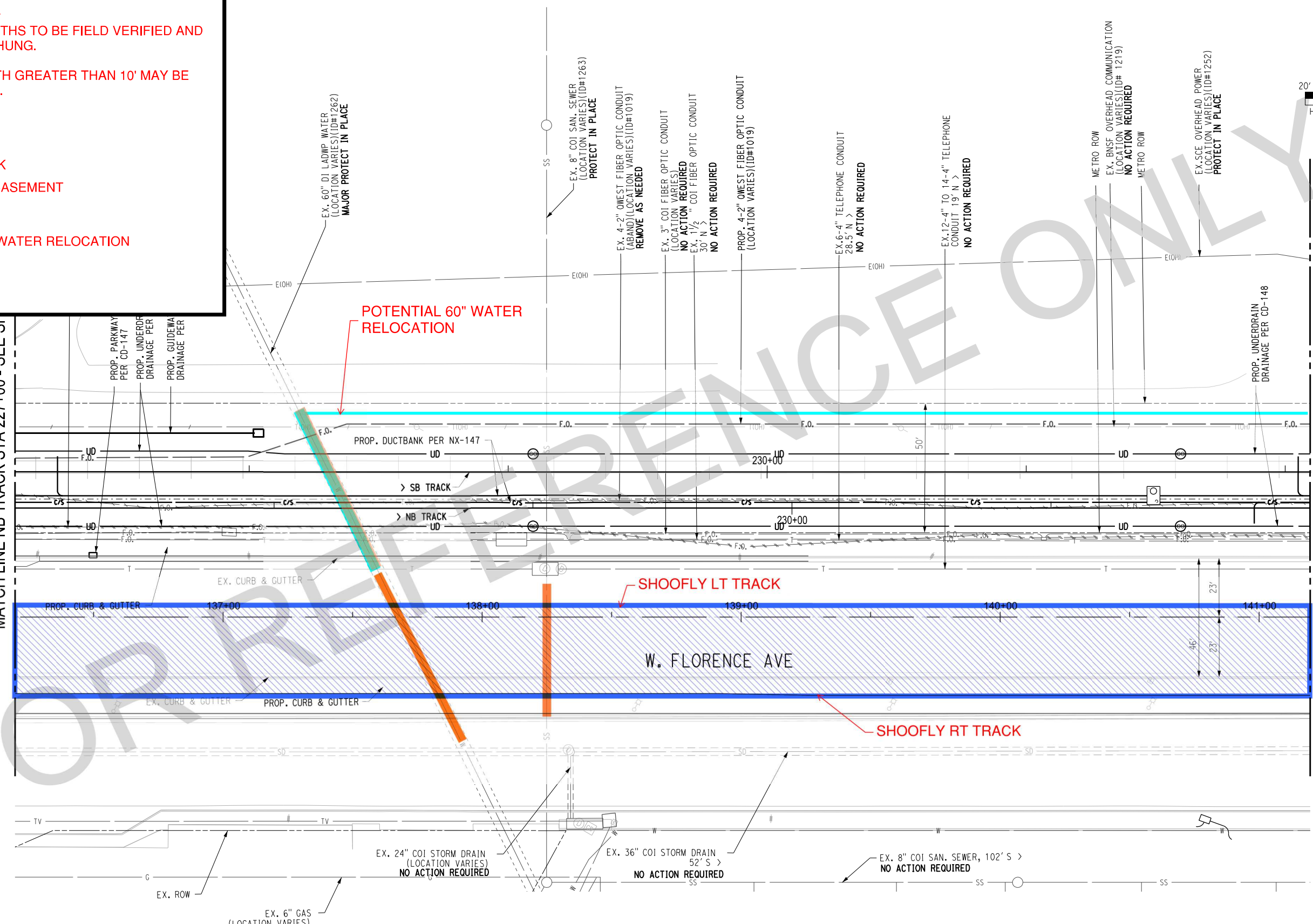
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 227+00 - SEE SH

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	
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IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro








ALTERNATIVE 2
BELOW GRADE

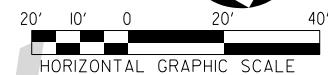
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GENERAL NOTES

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.

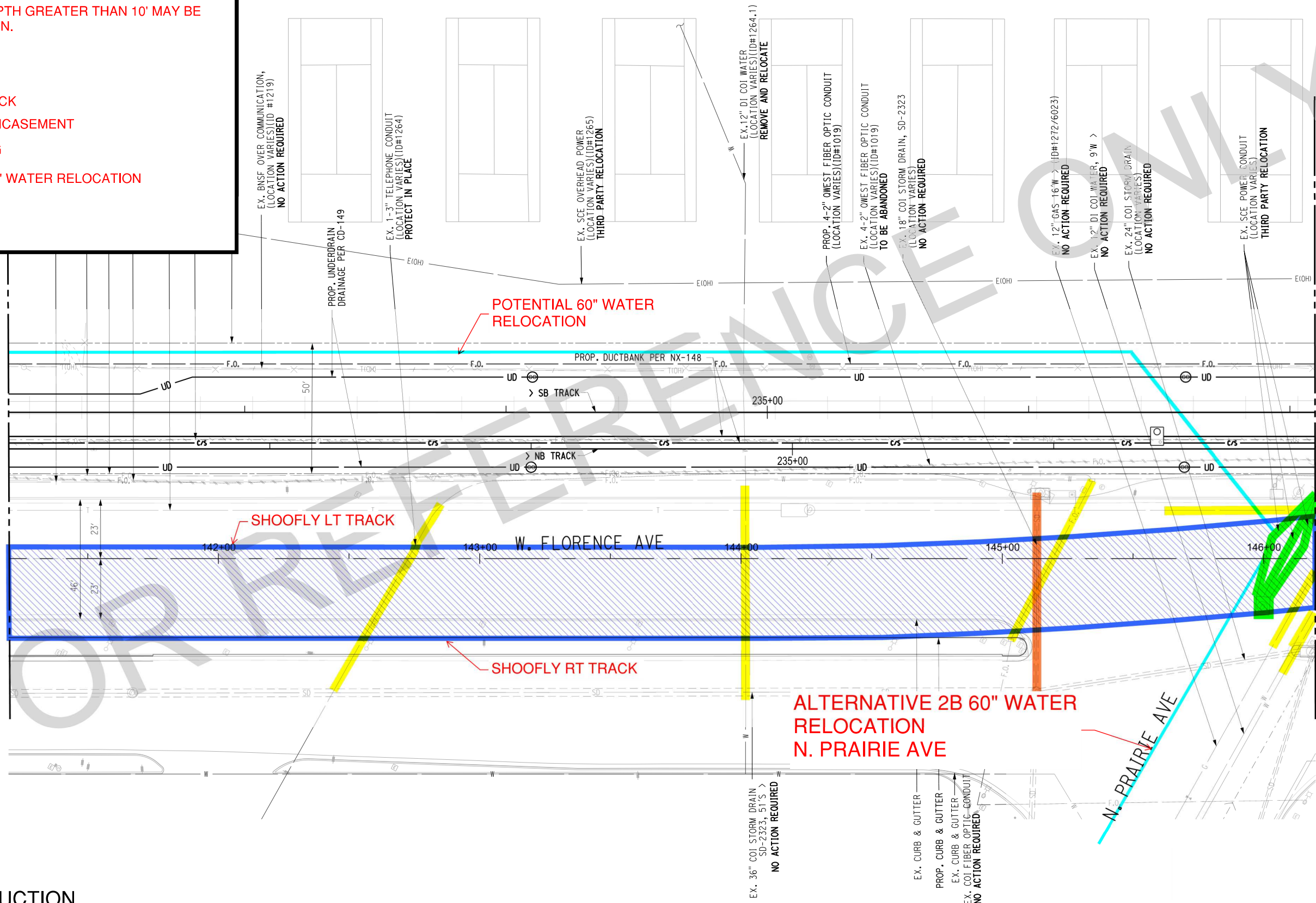
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 232+00 - SEE SH

MATCH LINE NB TRACK STA 237+00 - SEE SHEET UR-B050



NOT FOR CONSTRUCTION

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REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER

DESIGNED BY	
DRAWN BY	
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IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
 THE ENGINEERING RESOURCE






**ALTERNATIVE 2
 BELOW GRADE**

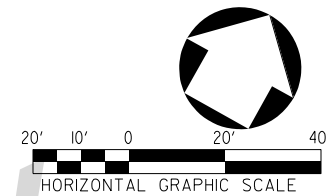
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GENERAL NOTES

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.

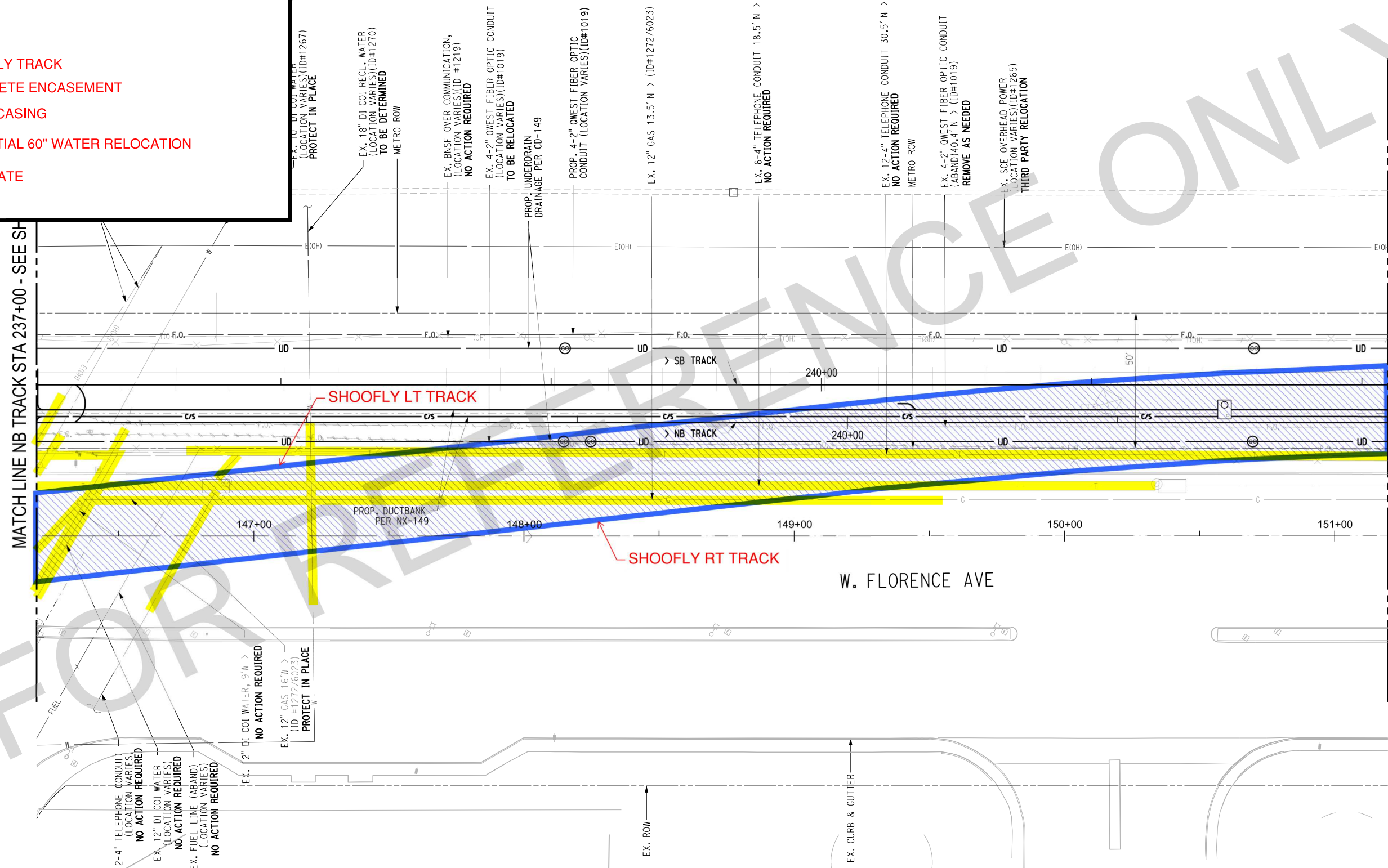
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 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**

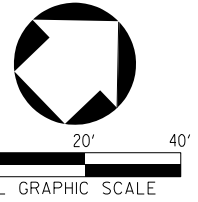
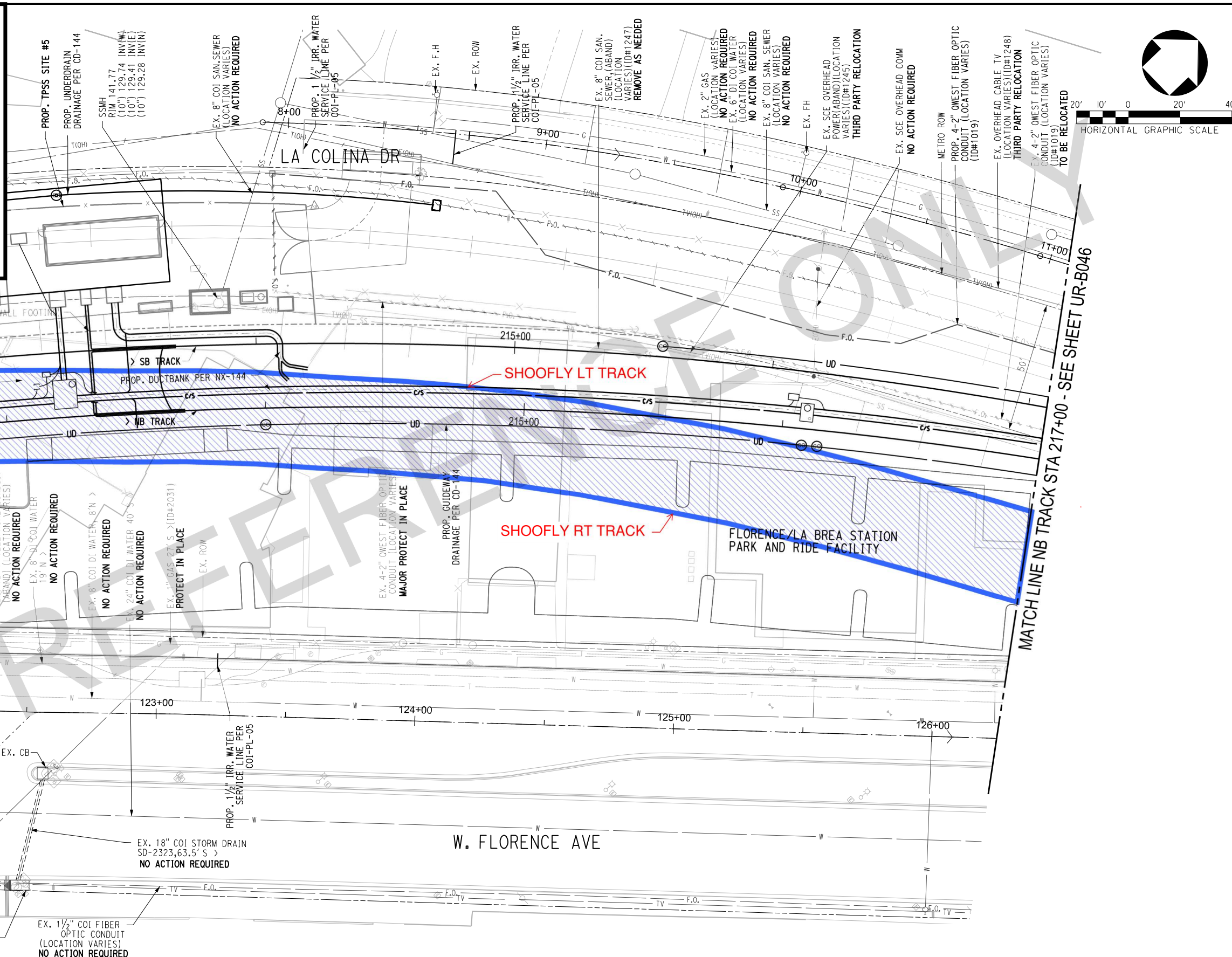
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GENERAL NOTES

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 212+00 - SEE SHEET UR-B046

MATCH LINE NB TRACK STA 217+00 - SEE SHEET UR-B046

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IN CHARGE	
DATE	12/10/19

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 3
 RELOCATIONS**

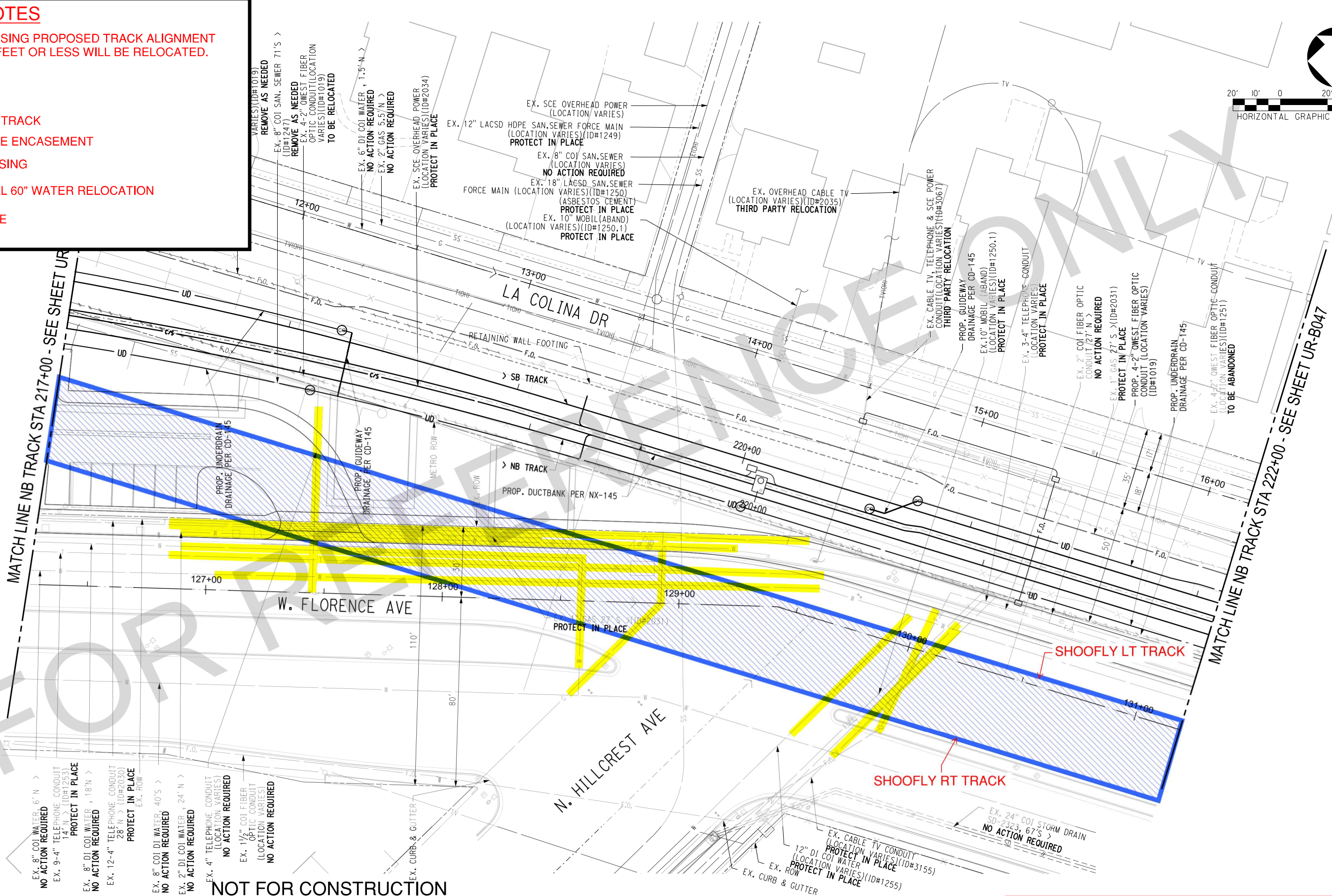
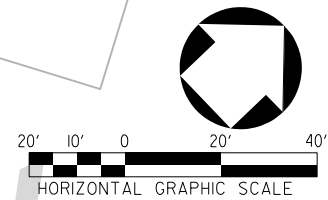
24-FEB-2016 09:05 USER= smalley P:\mtr\352\mb\cpl\design\Bldg\Documents\Walt\50955\Cresnew\LAX Transit Corridor\Design Post\Awaro\CADD\Utility_Sheets\C0368\URB046.dwg

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



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

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

BA INC.
TRANSPORTATION ENGINEERING






**ALTERNATIVE 3
RELOCATIONS**

09/05 24-FEB-2016 p:\mtr\ba\52\mb\c\p\design_Ba\ba\Documents\W\150955_Crescent\LAAX Transit Corridor Design Part A\Awaro\CADD\Utility_Sheets\C088\URB0302.dwg
 USER= smalley
 Penable= CVD,pen
 PLOT Date= 3/11/2019

GENERAL NOTES

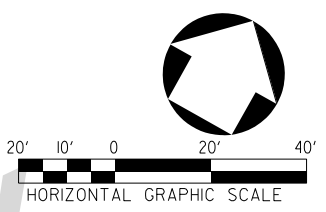
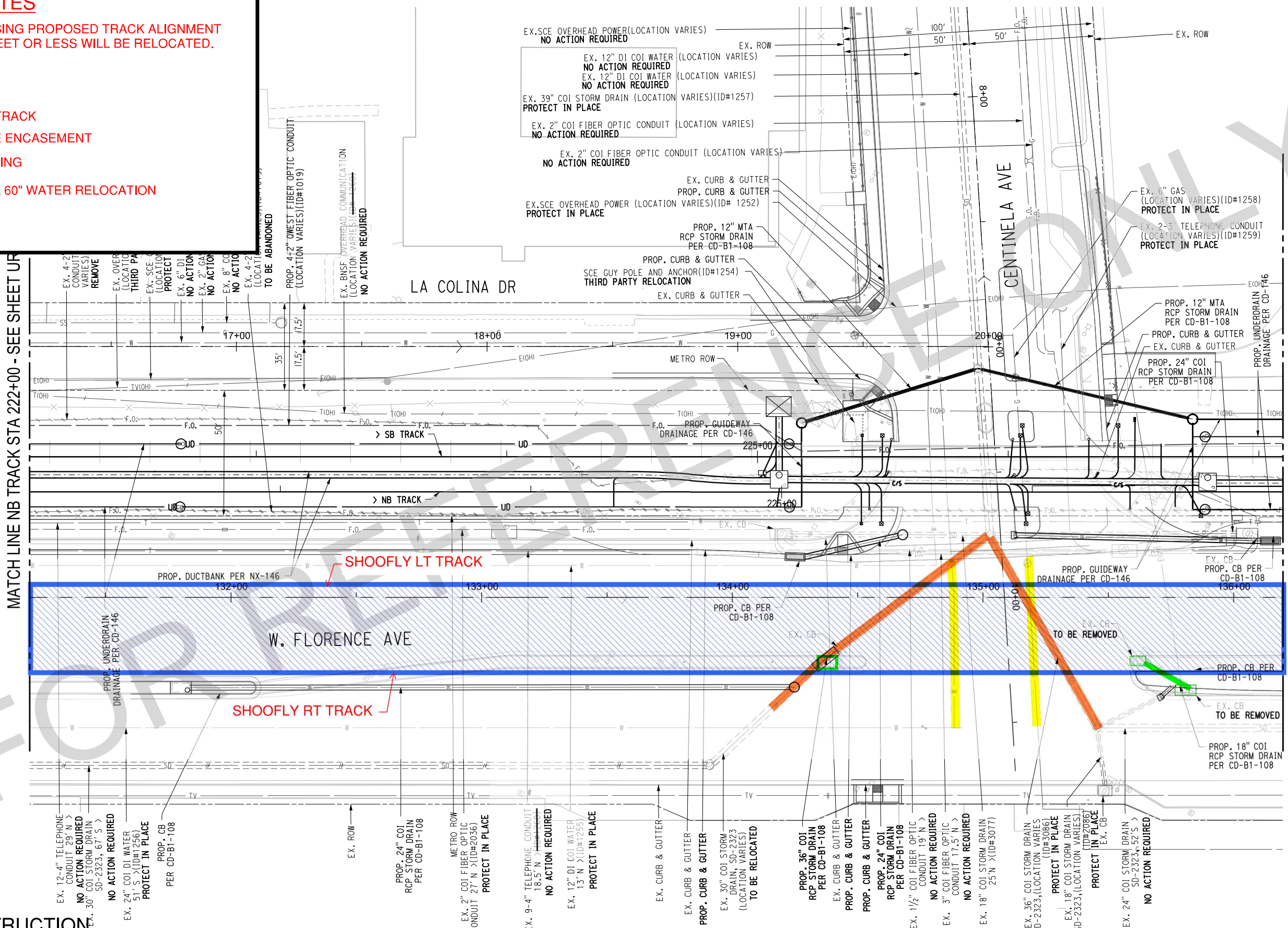
1. ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE

MATCH LINE NB TRACK STA 222+00 - SEE SHEET UR-B043

MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR-B048



NOT FOR CONSTRUCTION

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

EA INC.
 ENGINEERING ARCHITECTURE INTERIOR DESIGN






**ALTERNATIVE 3
RELOCATIONS**

24-FEB-2016 09:36 USER: smalley
 P:\InRoads\52\mb\cpl\Design_Bldg\Documents\Walt150951_Cresshaw_LAX Transit Corridor\Design_Plan_Alt3\CD\Utility_Sheets\CD\B043\URB043.dwg
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 P:\InRoads\52\mb\cpl\Design_Bldg\Documents\Walt150951_Cresshaw_LAX Transit Corridor\Design_Plan_Alt3\CD\Utility_Sheets\CD\B043\URB043.dwg

GENERAL NOTES

1. ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

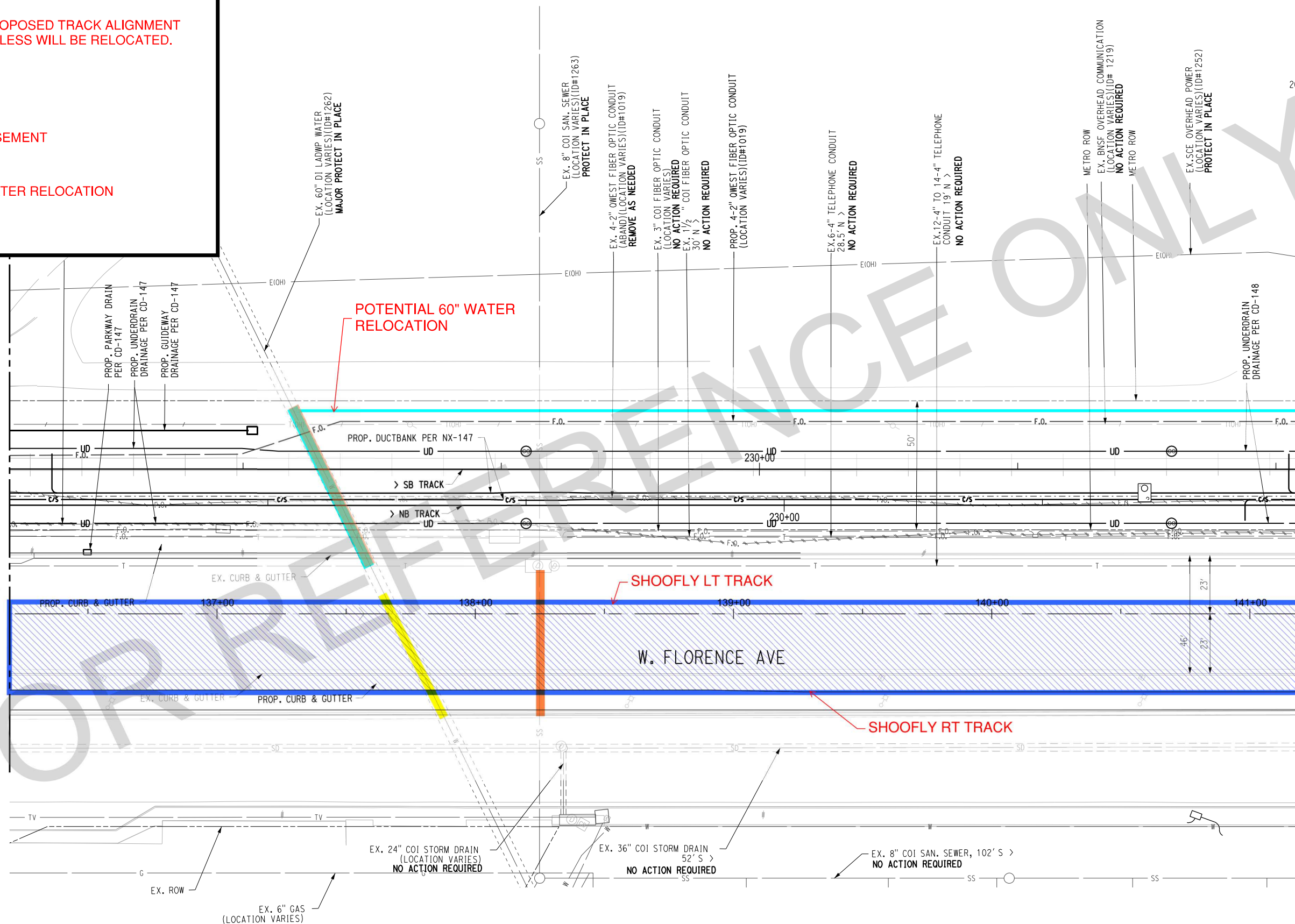
LEGEND

-  SHOOFLY TRACK
-  CONCRETE ENCASEMENT
-  STEEL CASING
-  POTENTIAL 60" WATER RELOCATION
-  RELOCATE



MATCH LINE NB TRACK STA 227+00 - SEE SHEET UR-B048

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

M LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro








ALTERNATIVE 3
RELOCATIONS

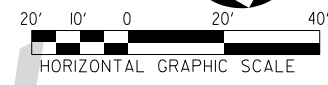
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 P:\mtr\352\mb\cpl\design\Bldg\Documents\Walt\50955\Cresshaw-LAX Transit Corridor Design\Part A\Drawings\Utility Sheets\C0388\URB049.dwg

GENERAL NOTES

1. ALL UTILITIES CROSSING PROPOSED TRACK ALIGNMENT AT A DEPTH OF 10' FEET OR LESS WILL BE RELOCATED.

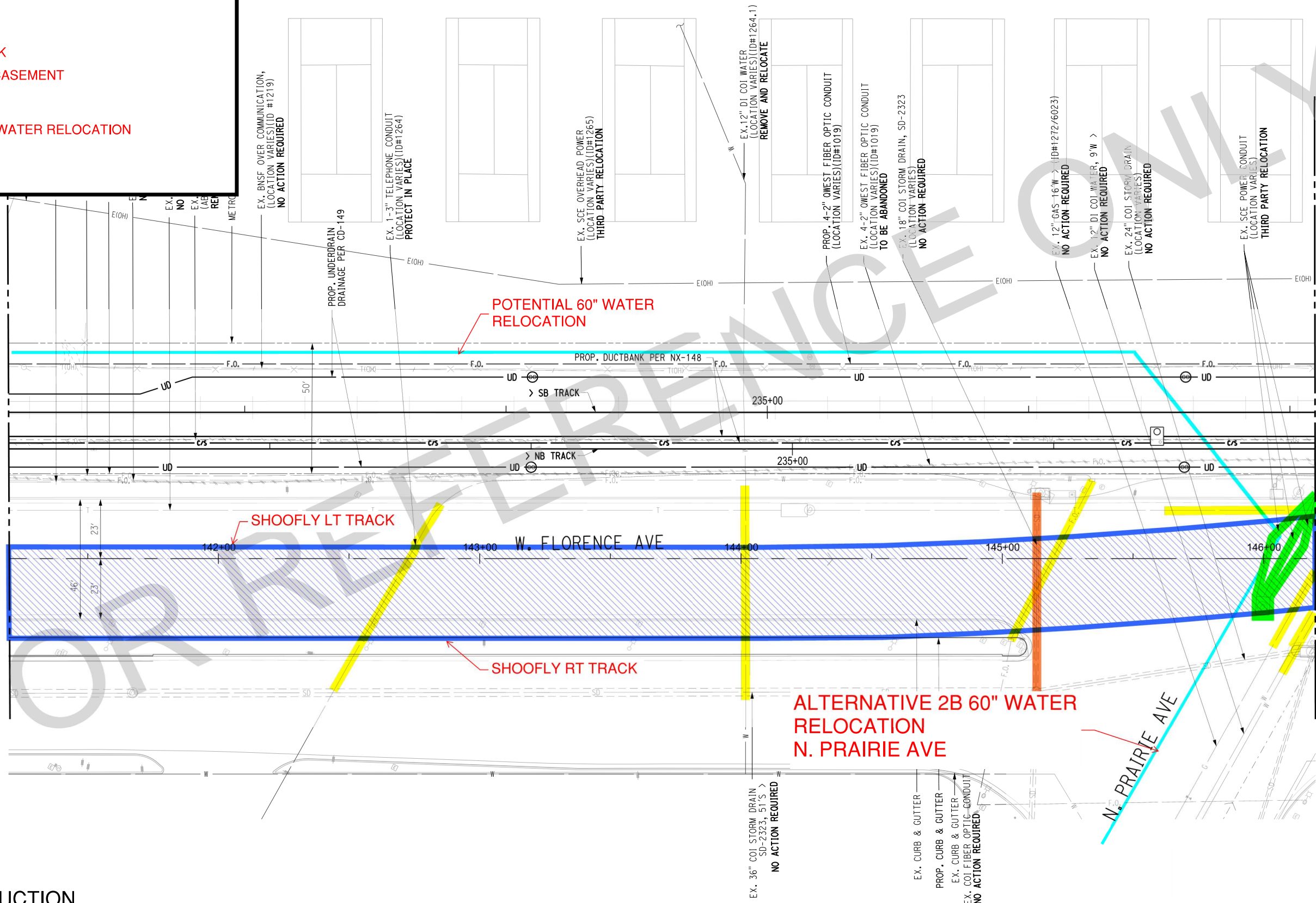
LEGEND

-  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 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 RESOURCE






**ALTERNATIVE 3
 RELOCATIONS**

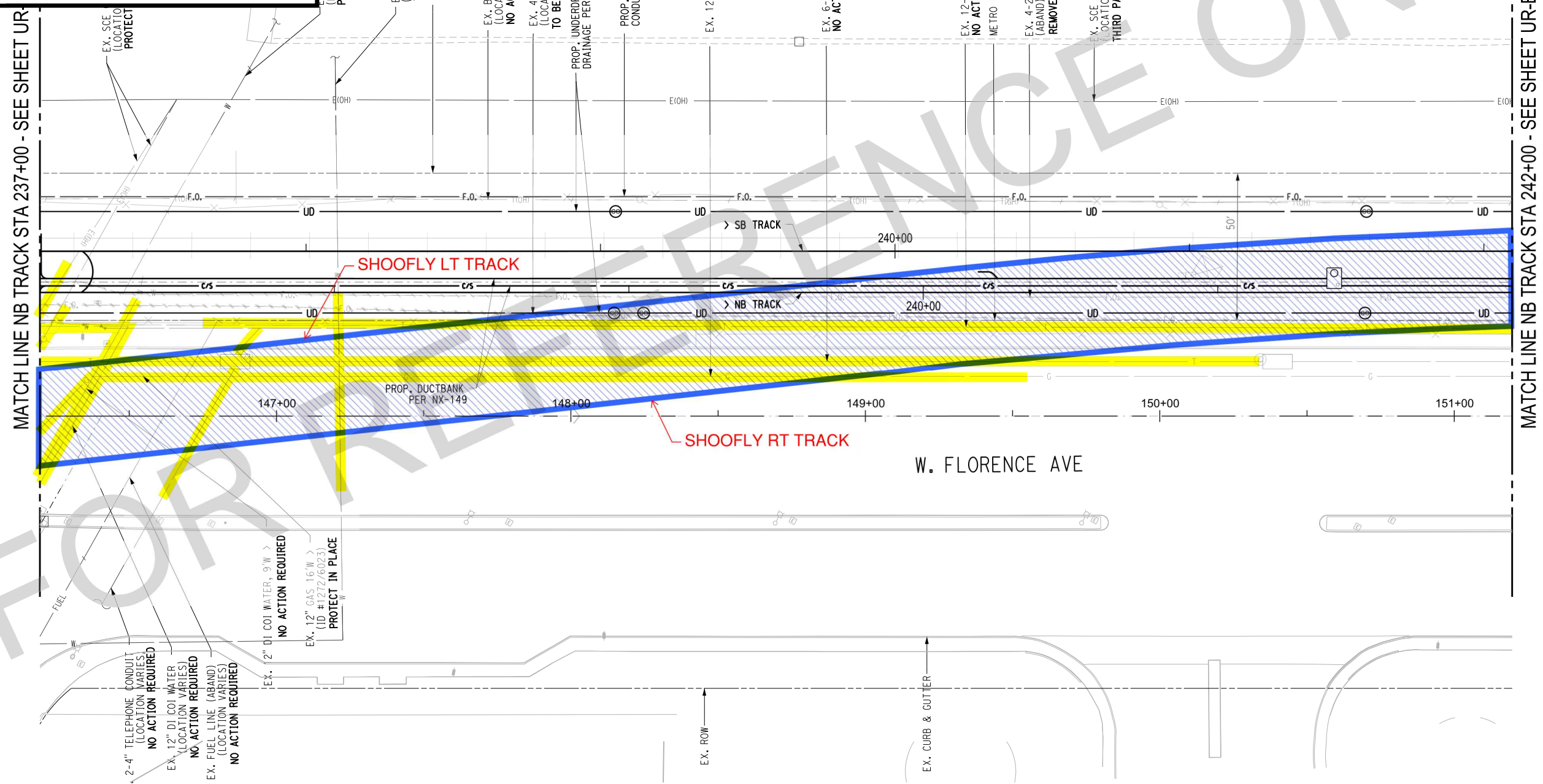
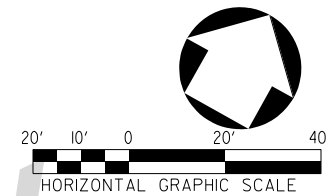
24-FEB-2016 09:26 USER= smalley PLOTDRVS5

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 237+00 - SEE SHEET UR-B050

MATCH LINE NB TRACK STA 242+00 - SEE SHEET UR-B051

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



ALTERNATIVE 3
RELOCATIONS

00266
 USER= smalley
 PLOT DATE= 12/10/19
 PLOT TIME= 10:00:00
 PLOT BY= CVD/jea
 PLOT DEVICE= HP DesignJet 5000 Series
 PLOT PAPER= A
 PLOT SCALE= 1:1
 PLOT SHEETS= 1
 PLOT TOTAL TIME= 0:00:00
 PLOT STATUS= SUCCESS
 PLOT MESSAGE=

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

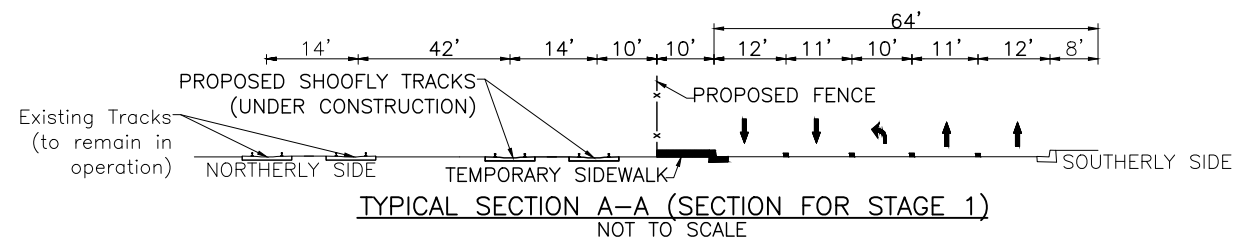
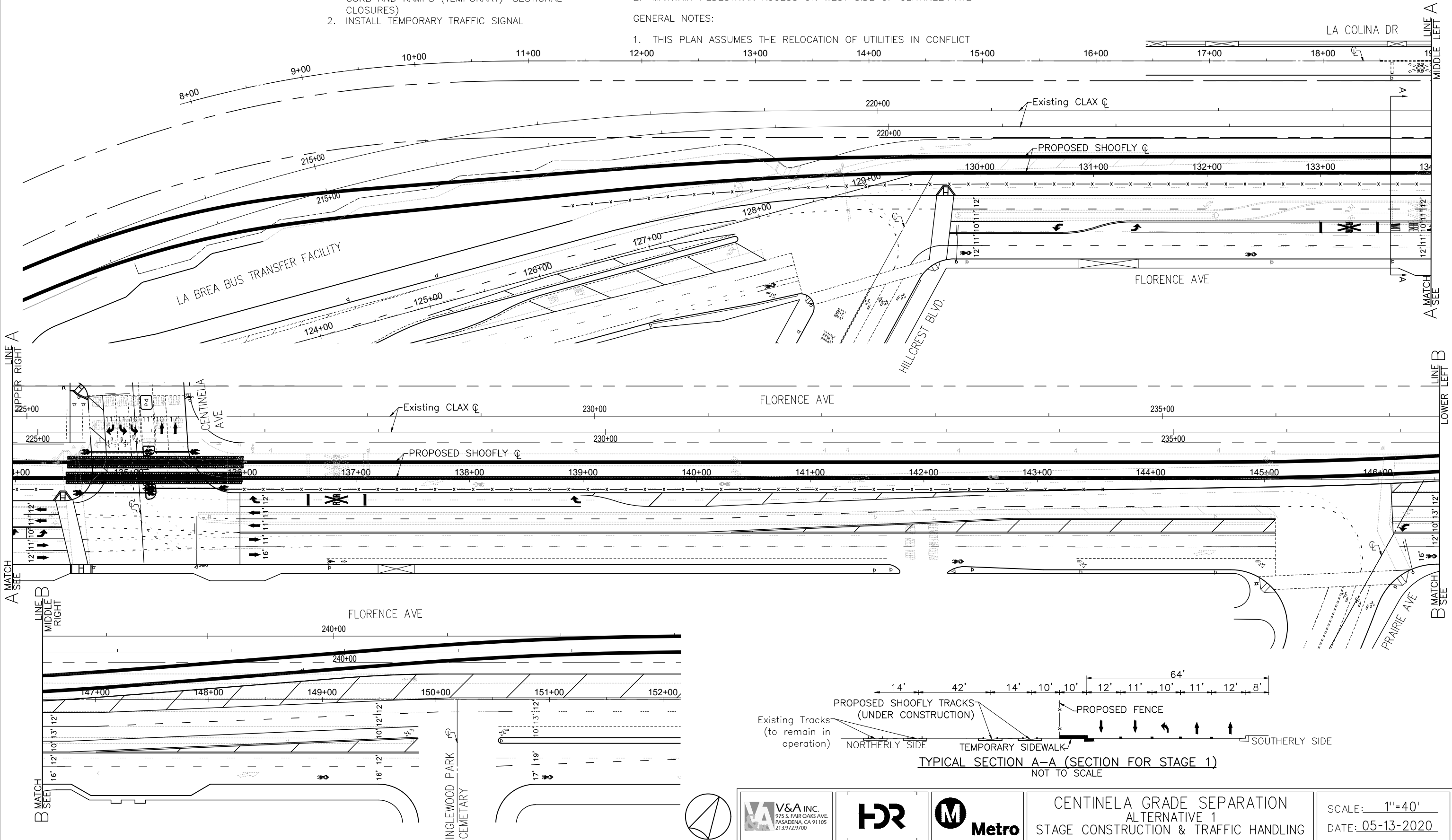
NOTES CONT.

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\$

V:\2019\VA-1907 - LA Metro SES - HBR\Florence_Centinela\Design\01_Screening_Analysis\CADD\Sheets\VTCP\VTCP - At 1A.dwg May 13, 2020 8:46am_jregrete

 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

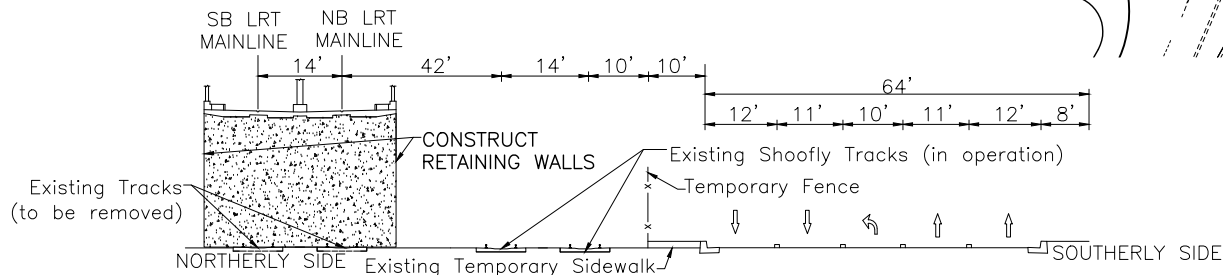
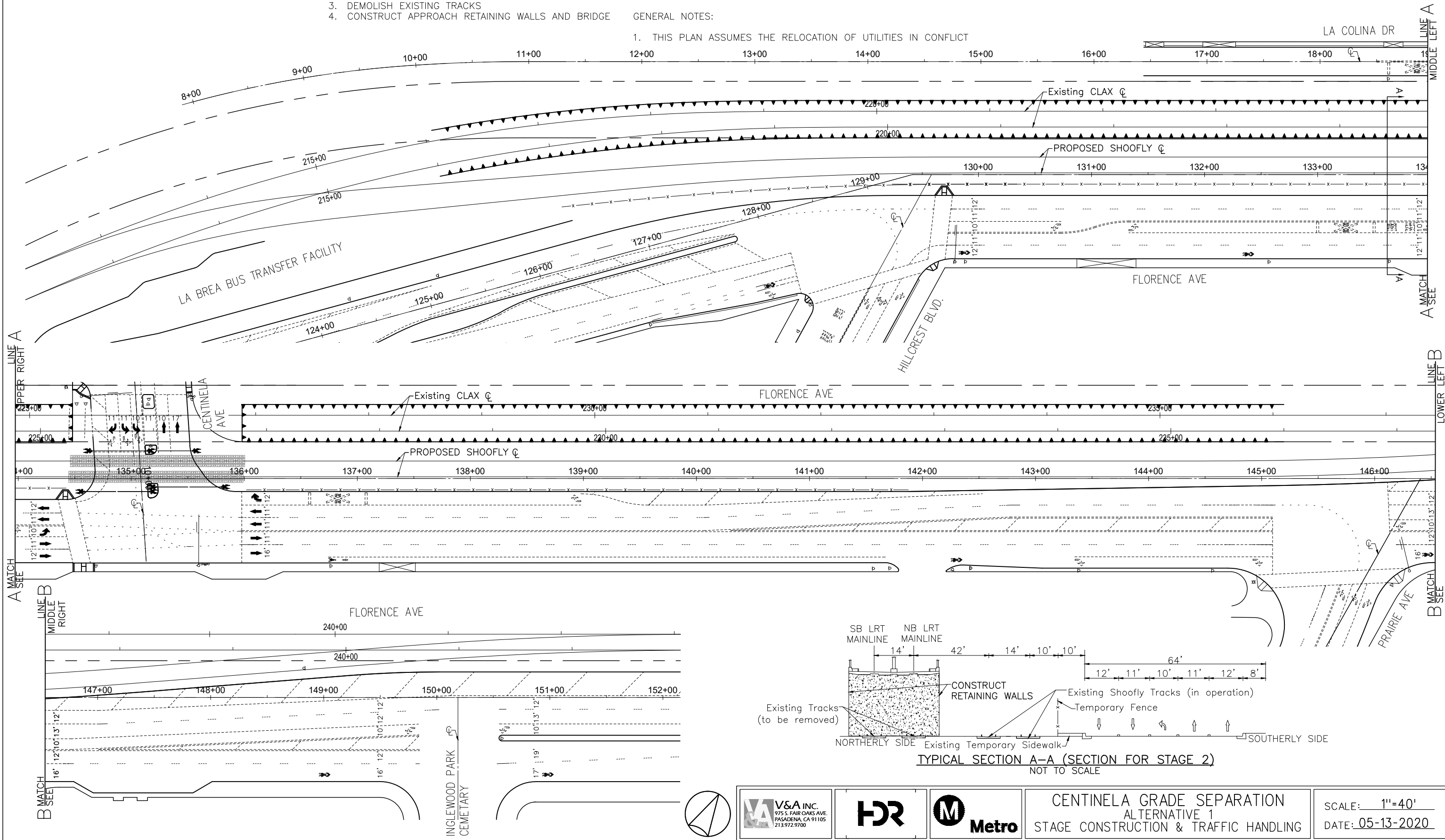
NOTES CONT.

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



TYPICAL SECTION A-A (SECTION FOR STAGE 2)
NOT TO SCALE



CENTINELA GRADE SEPARATION
ALTERNATIVE 1
STAGE CONSTRUCTION & TRAFFIC HANDLING

SCALE: 1"=40'
DATE: 05-13-2020

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.

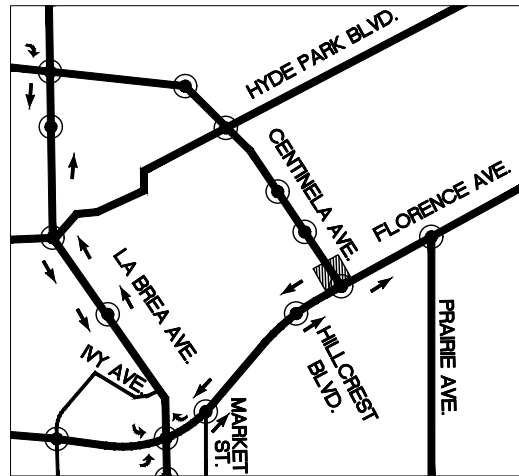
TRAFFIC HANDLING:

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

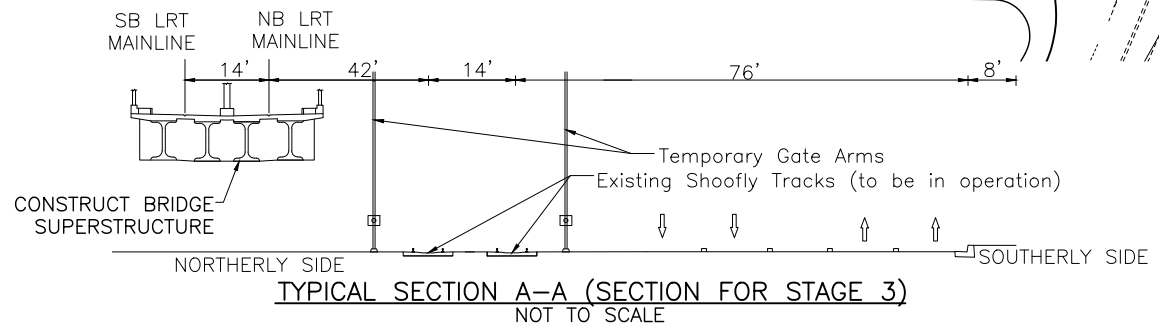
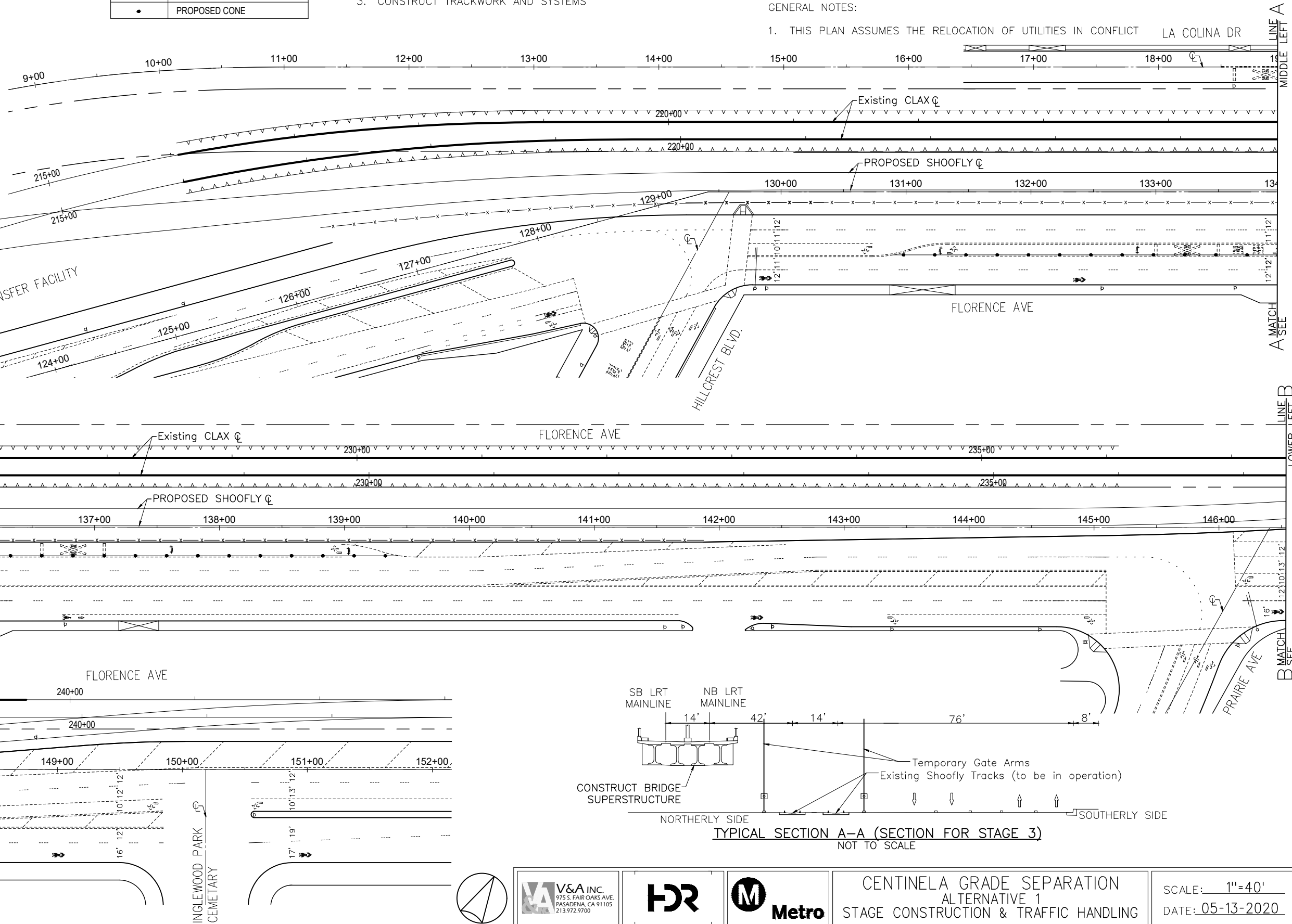
GENERAL NOTES:

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



TEMPORARY/ WEEKEND CLOSURE DETOUR
NOT TO SCALE



\$TIMES
 \$FILES
 \$PENIBLS
 \$PLDRVL\$

V:\2019\VA-1907 - LA Metro SES - HBR\Florence_Centinela\Design\01_Screening_Analysis\CADD\Sheets\VTCP\VTCP - At 1A.dwg May 13, 2020 8:48am_jregrete

 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

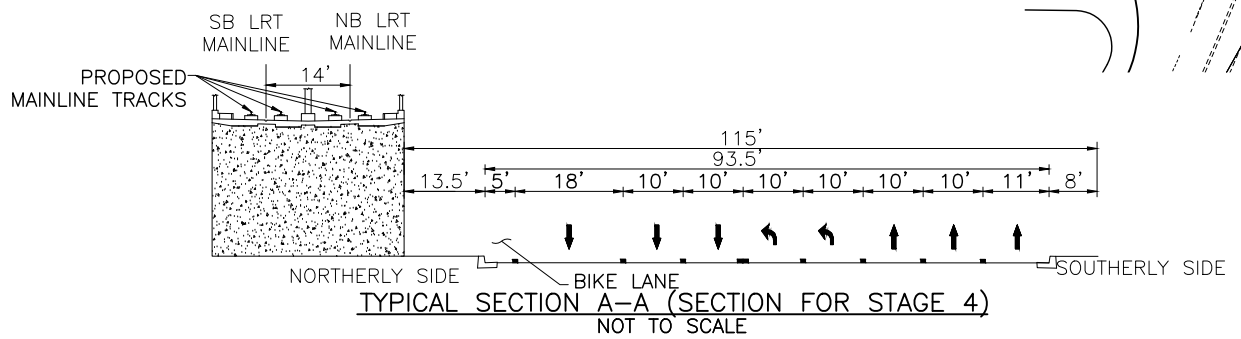
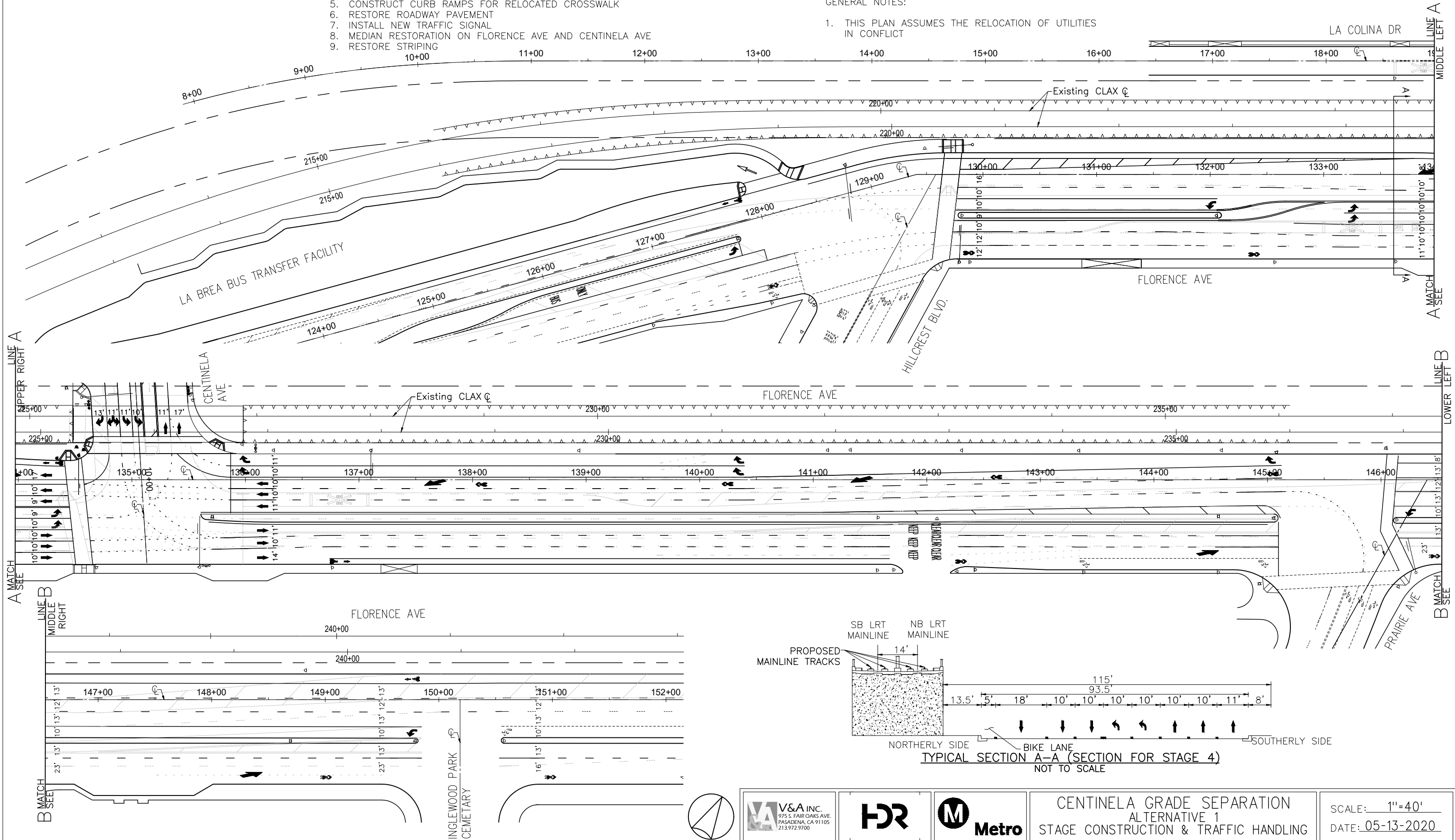
NOTES CONT.

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

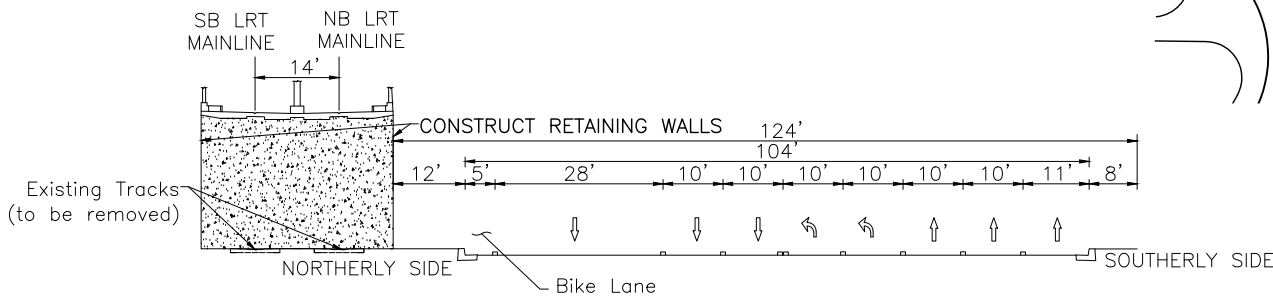
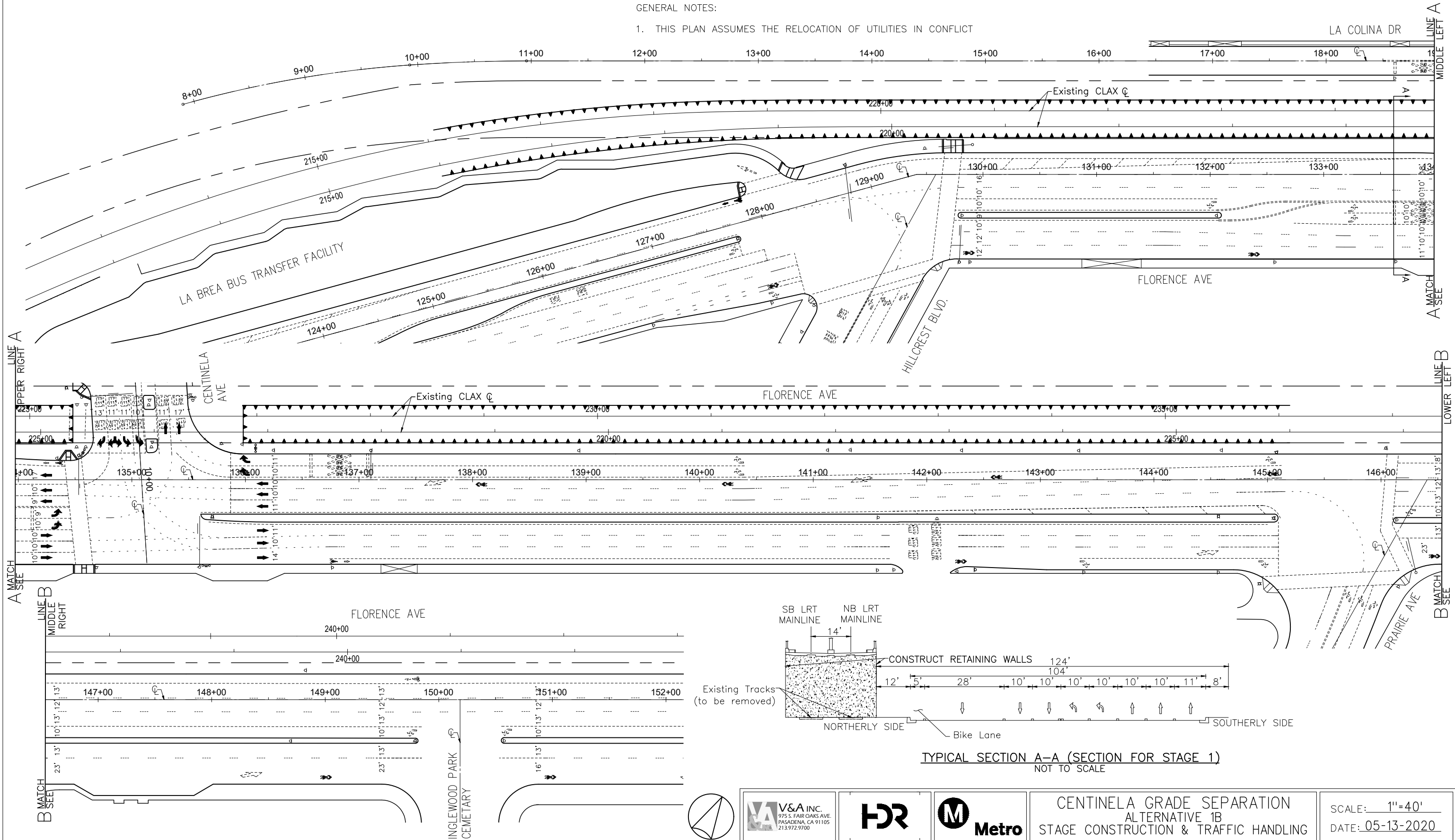
NOTES CONT.

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

V:\2019\VA-1907 - LA Metro SES - HBR\Florence_Centinela\Design\01_Screening_Analysis\CADD\Sheets\VTCP\VTCP - At 1B.dwg May 13, 2020 8:50am...jregrete

 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.

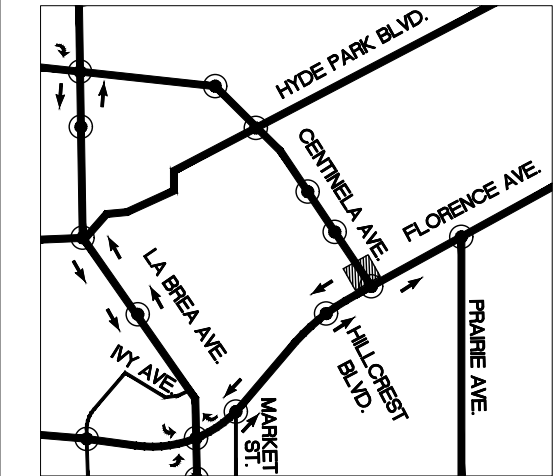
TRAFFIC HANDLING:

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

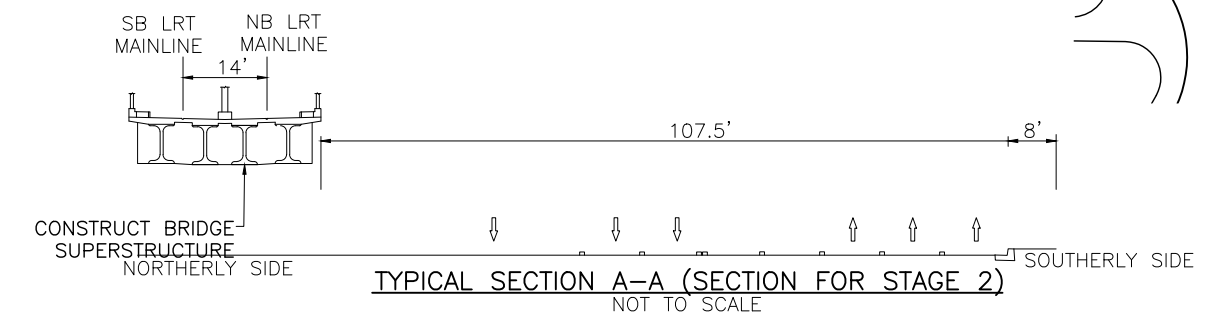
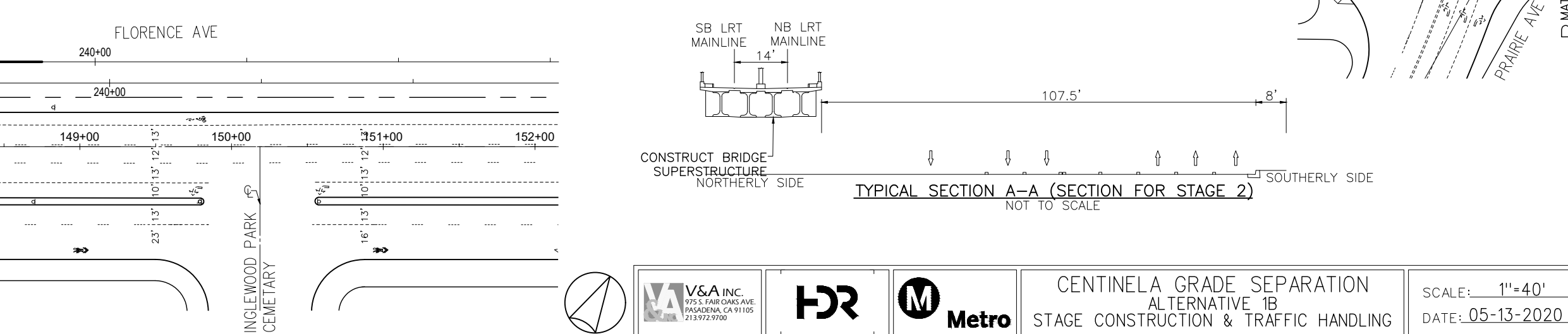
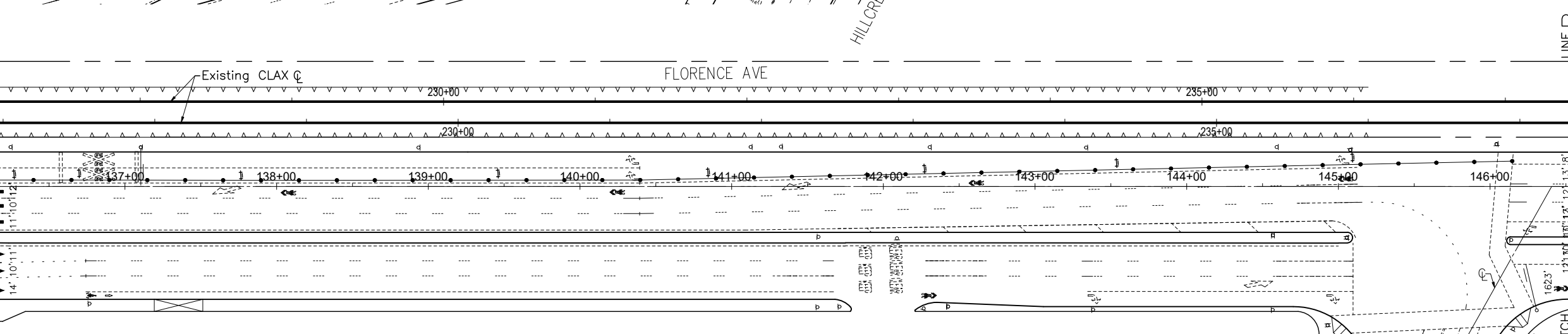
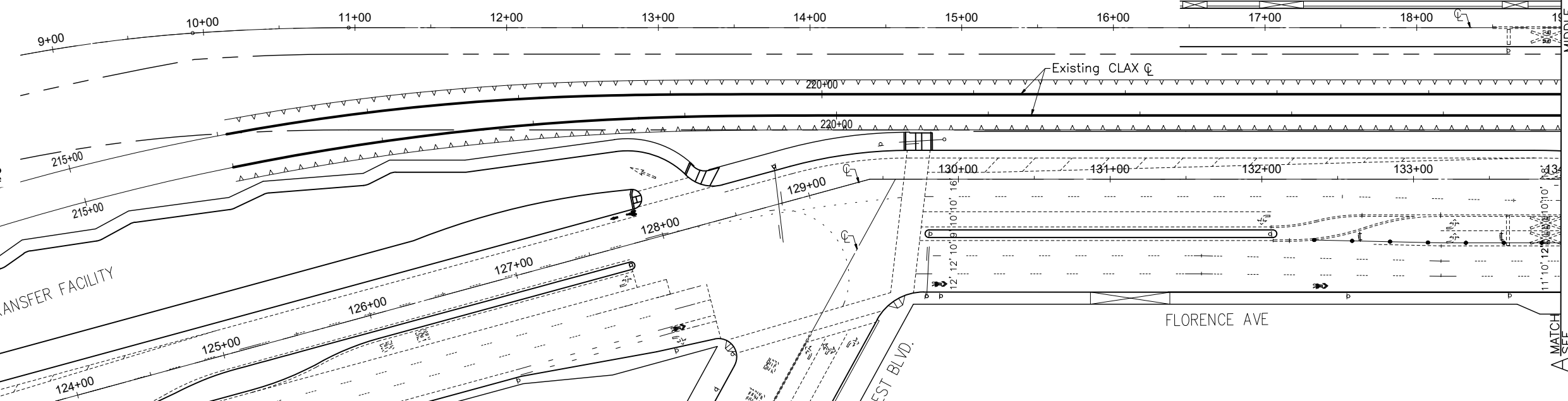
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT

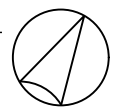
LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED TYPE III BARRICADE
	PROPOSED CONE



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

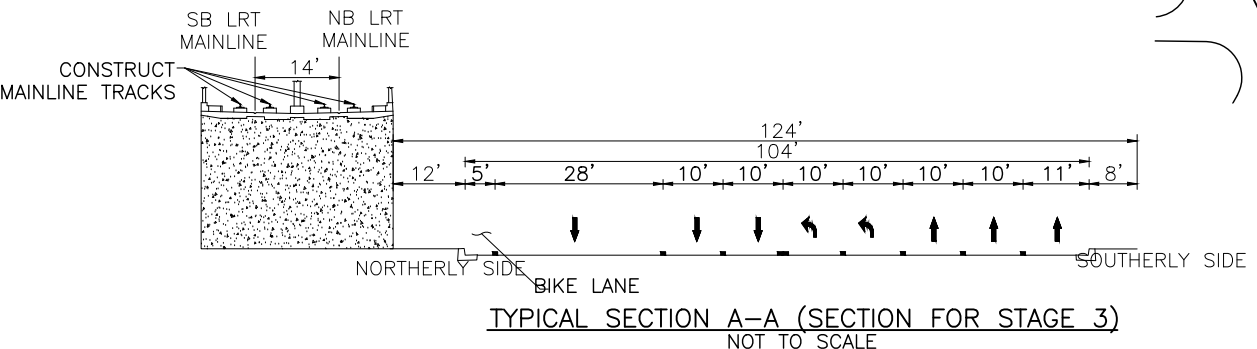
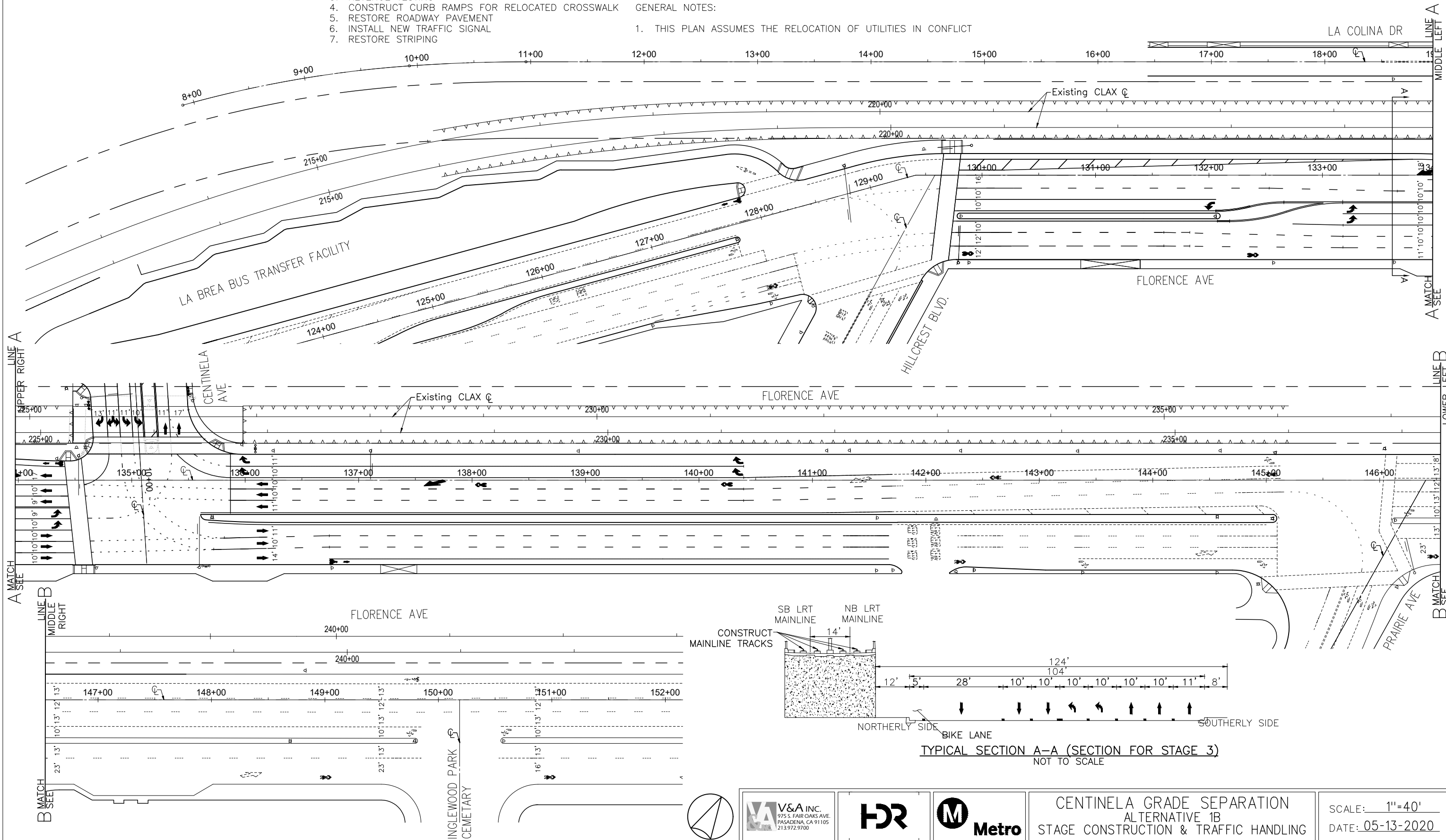
NOTES CONT.

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
 \$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 1B		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

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

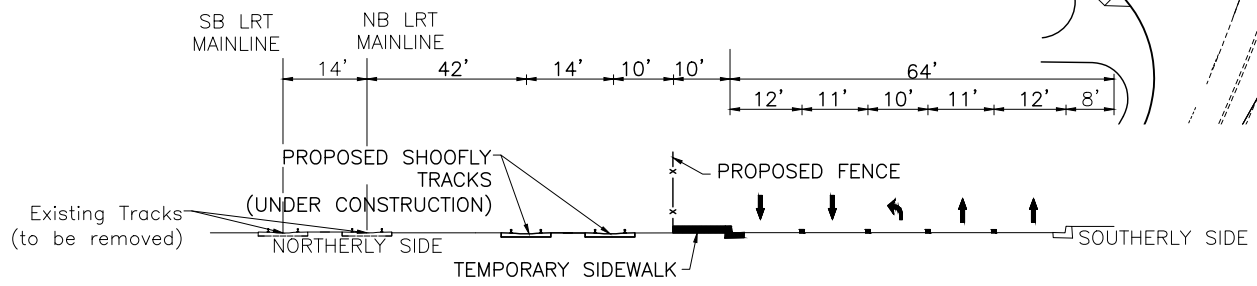
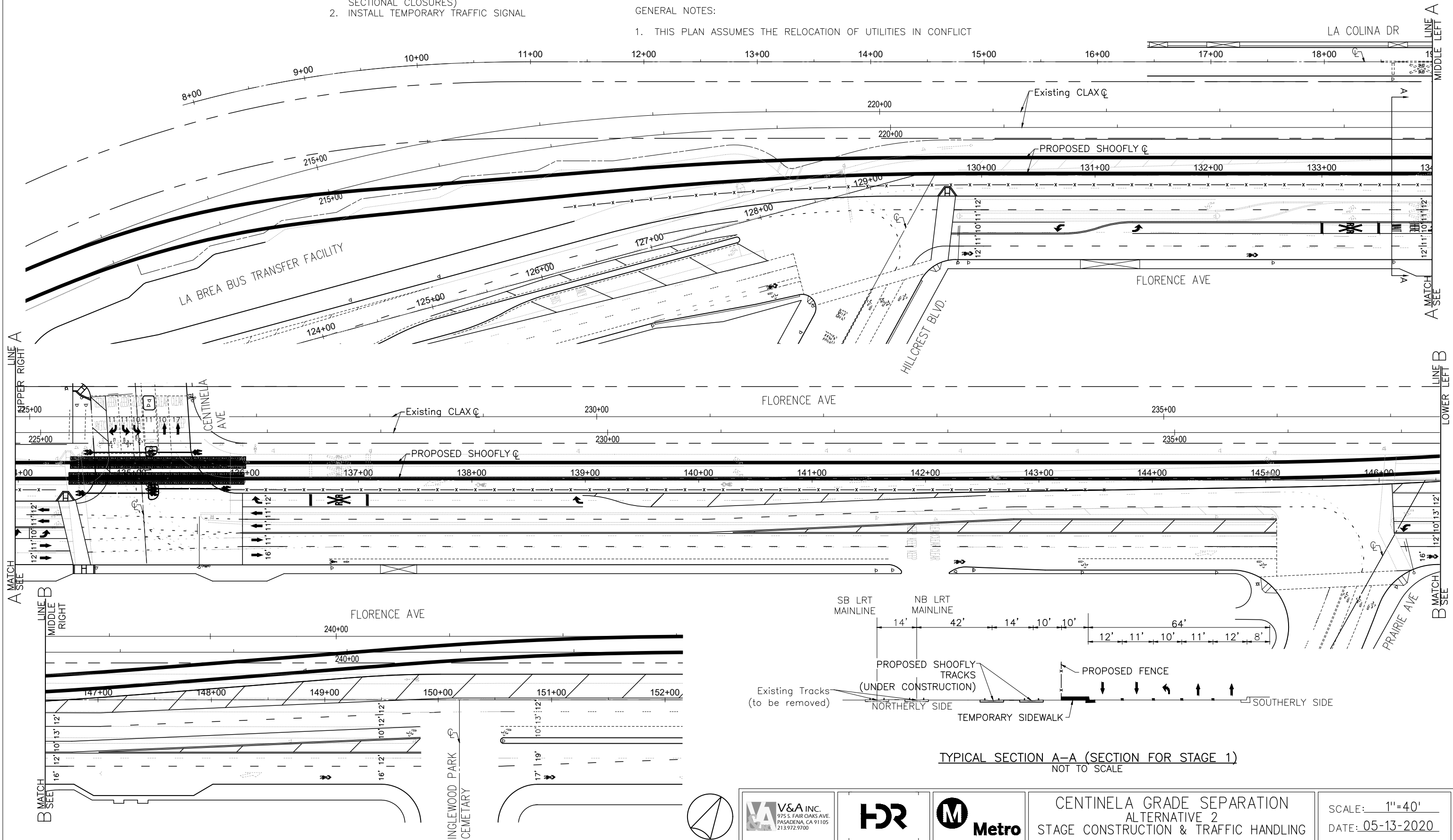
NOTES CONT.

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

\$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 2		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

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

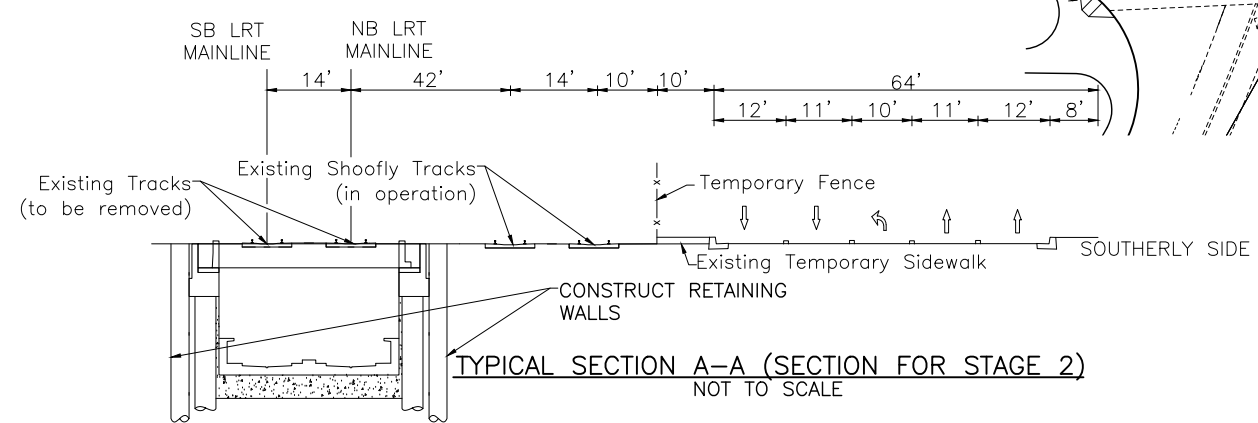
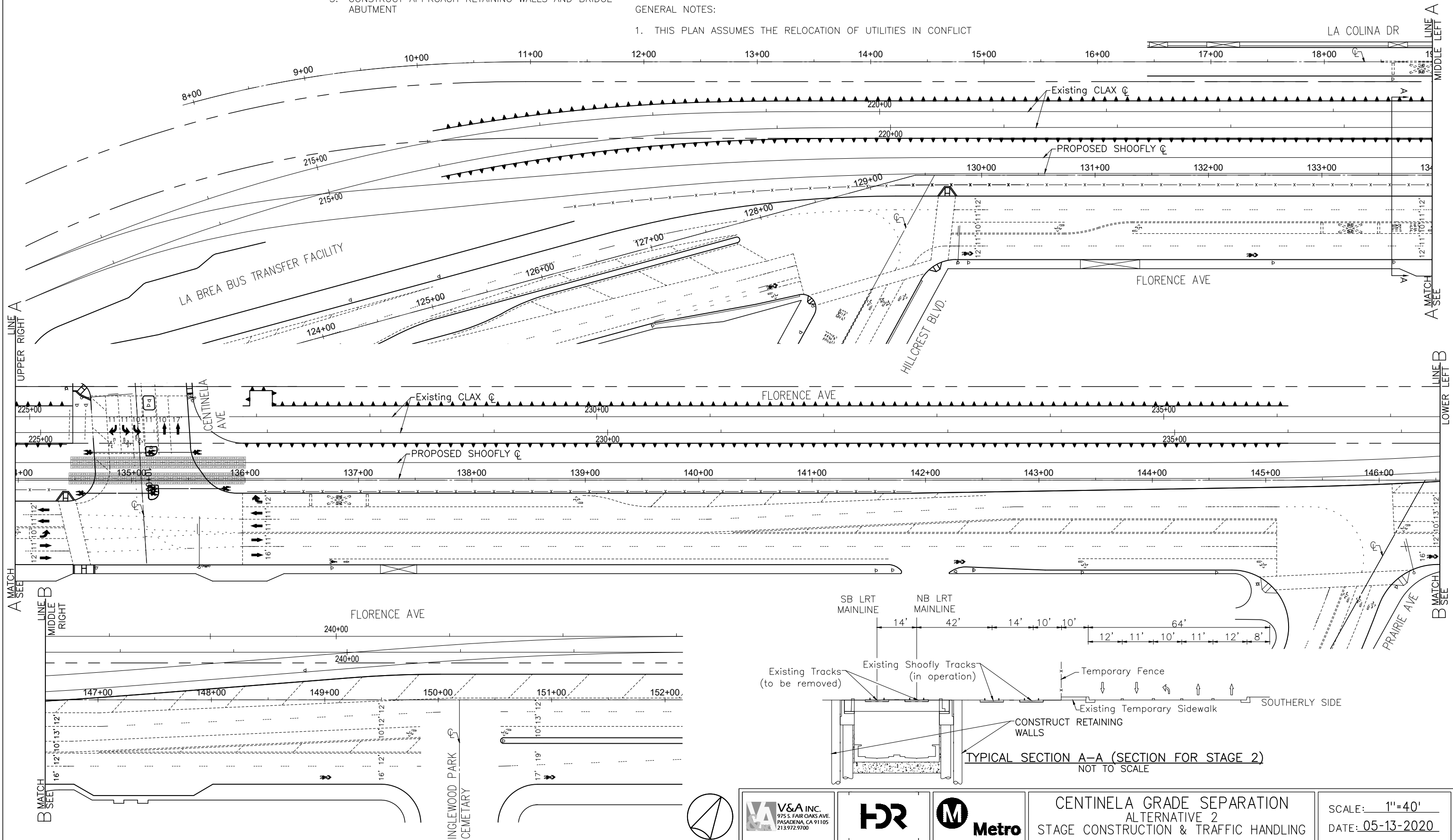
NOTES CONT.

TRAFFIC HANDLING:

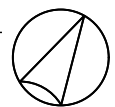
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$ TIMES
 \$ FILES
 \$ PENIBLS
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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

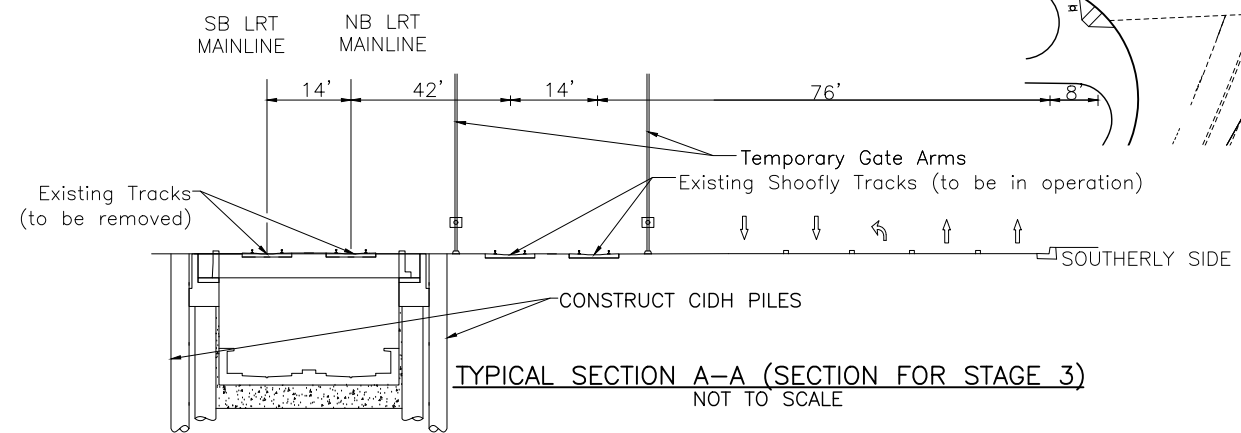
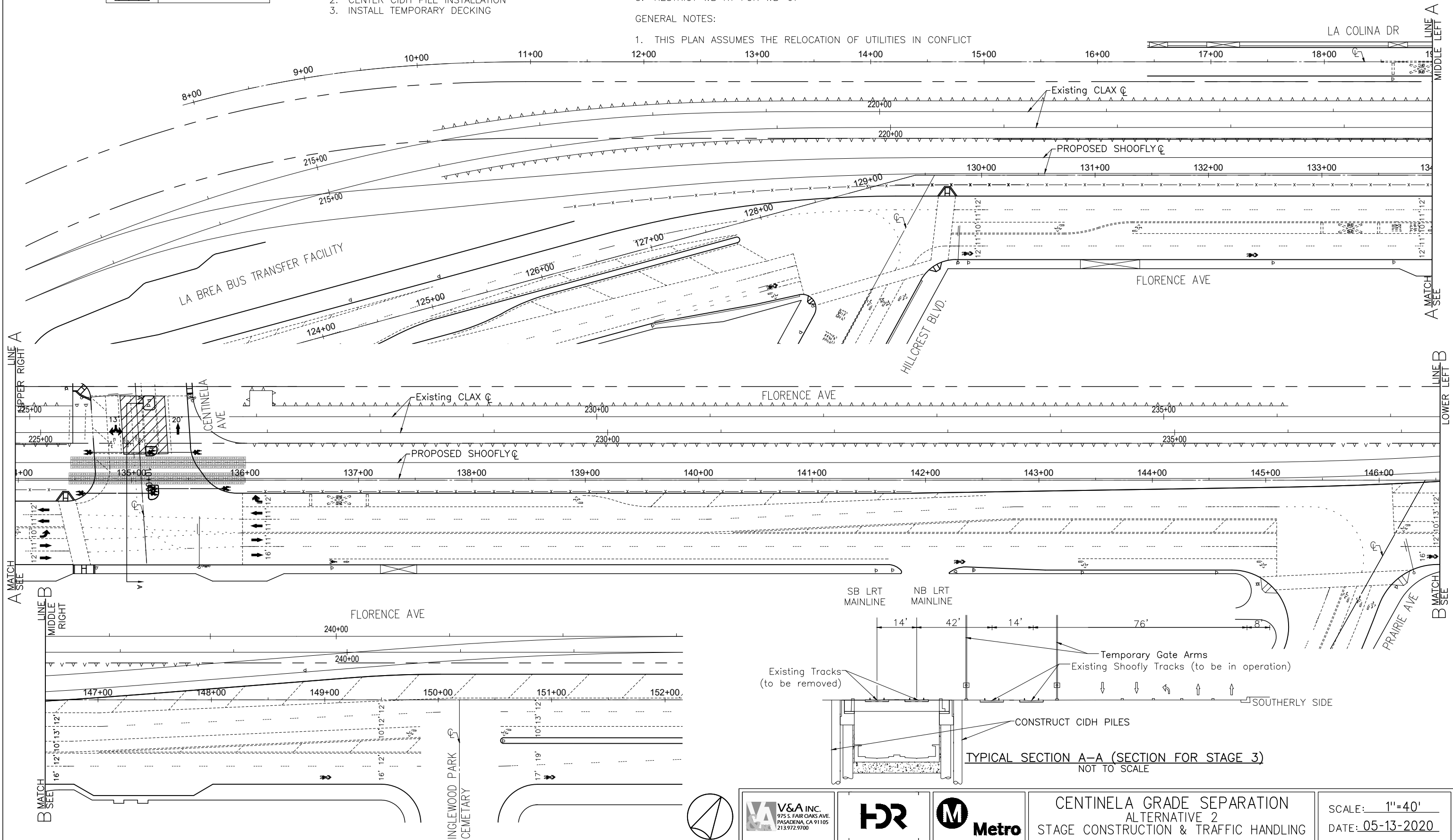
NOTES CONT.

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



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			ALTERNATIVE 2		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

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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

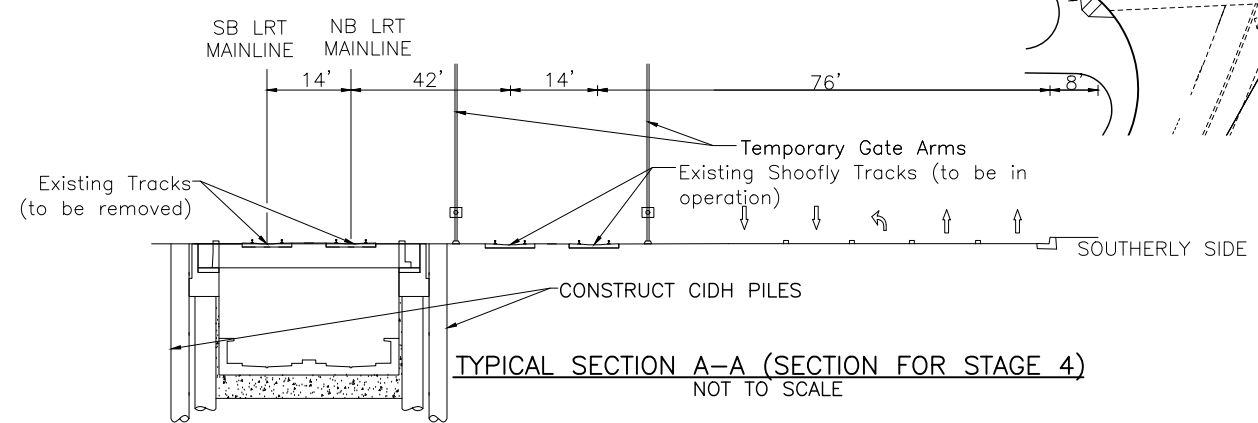
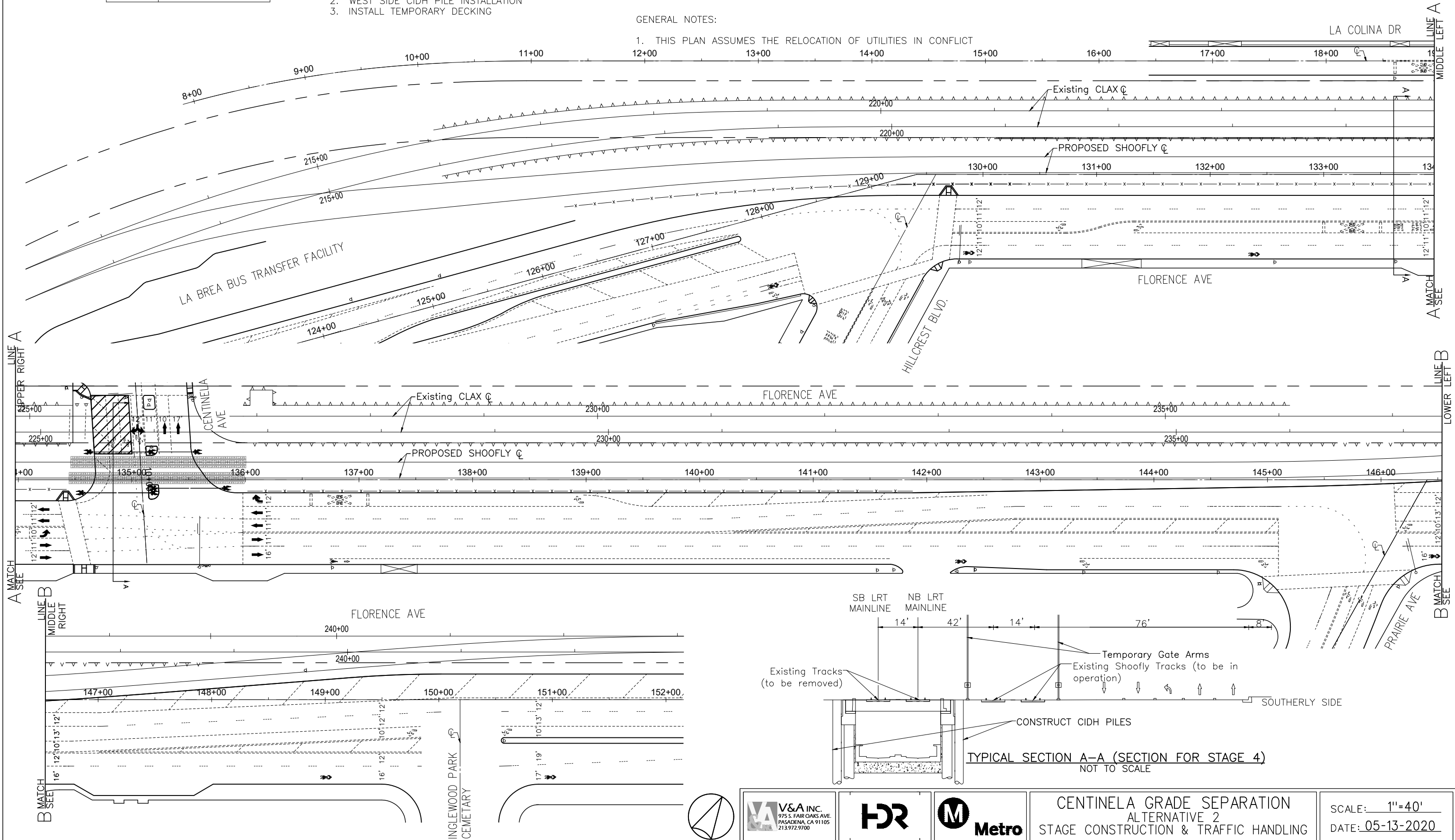
NOTES CONT.

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



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			ALTERNATIVE 2	
STAGE CONSTRUCTION & TRAFFIC HANDLING			SCALE: 1"=40'	DATE: 05-13-2020

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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:

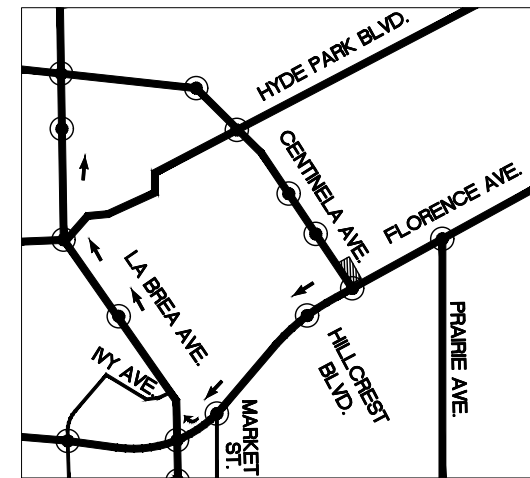
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. TEMPORARY CLOSURE OF NB CENTINELA AVE BETWEEN FLORENCE AVE AND LA COLINA DR
3. RESTRICT WB RT (ALL VEHICLES)
4. RESTRICT EB LT (ALL VEHICLES)
5. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

NOTES CONT.

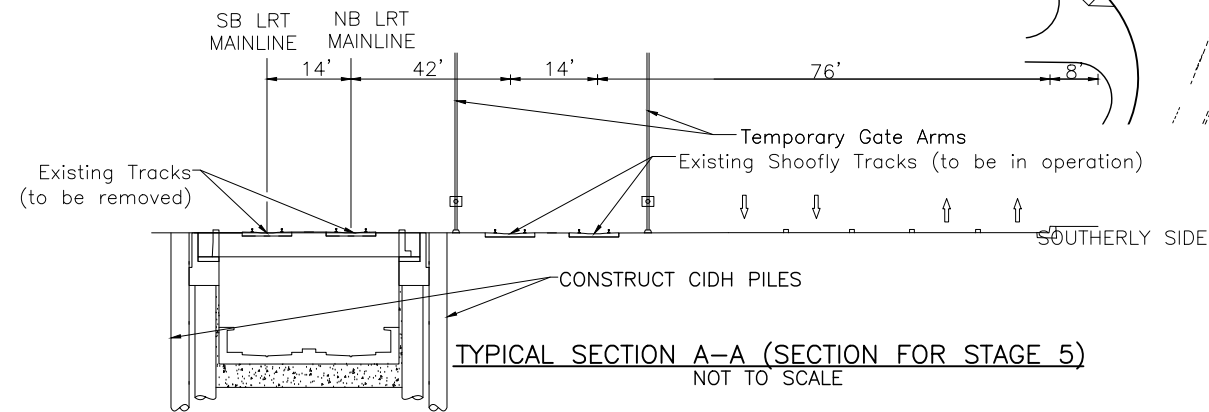
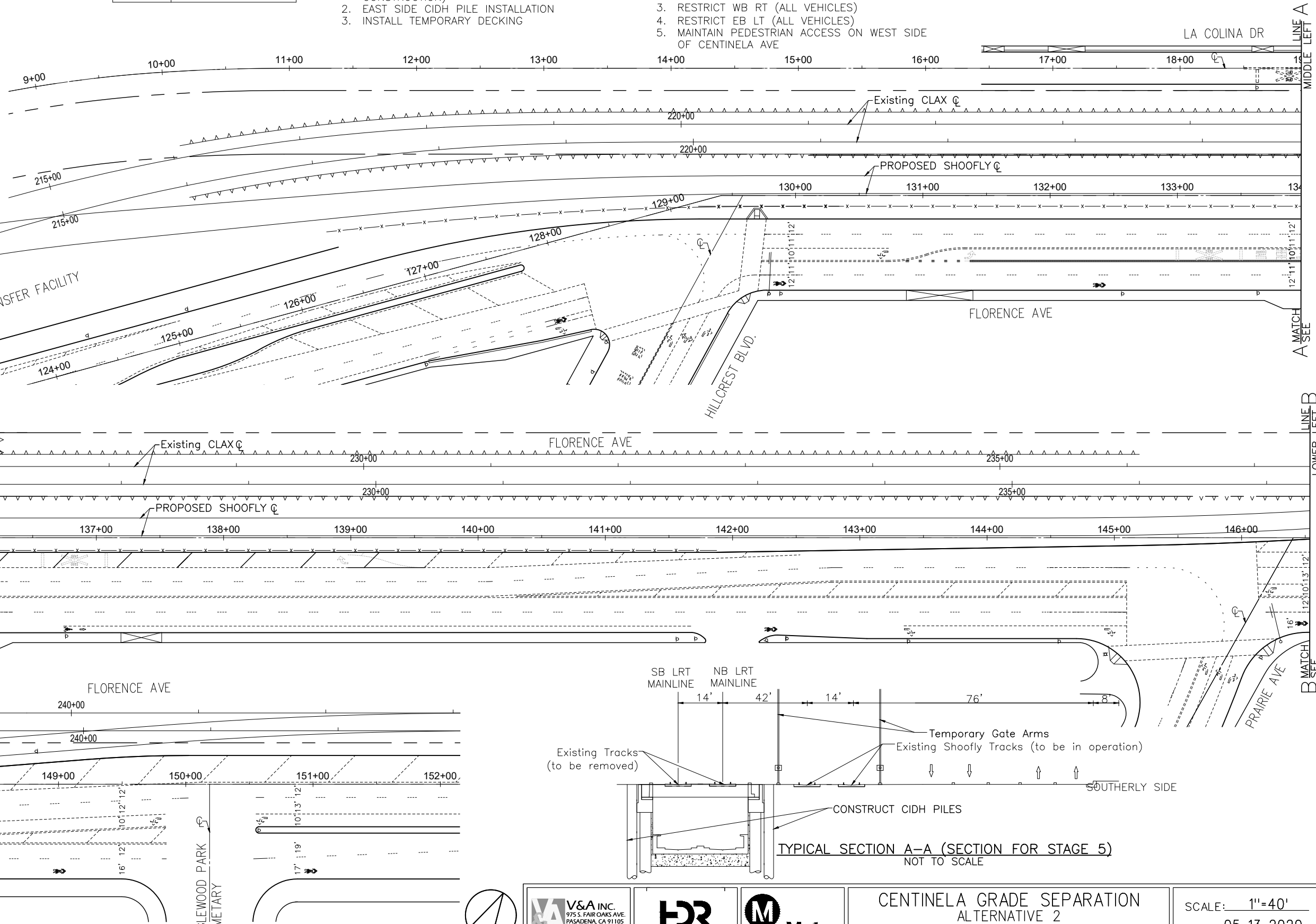
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT

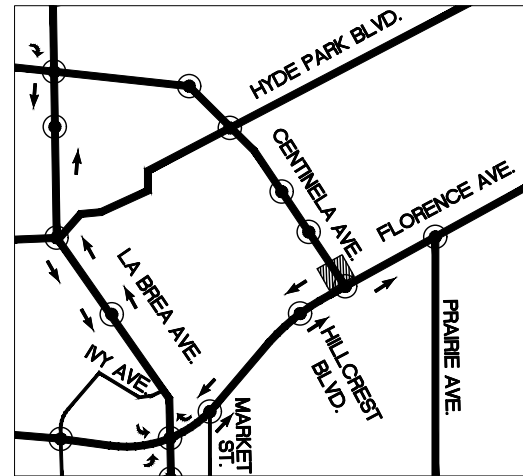
LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA



NB CENTINELA AVE CLOSURE DETOUR
NOT TO SCALE



<p>V&A INC. 975 S. FAIR OAKS AVE. PASADENA, CA 91105 213.972.9700</p>			<p>CENTINELA GRADE SEPARATION ALTERNATIVE 2</p>		SCALE: 1"=40'
			<p>STAGE CONSTRUCTION & TRAFFIC HANDLING</p>		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

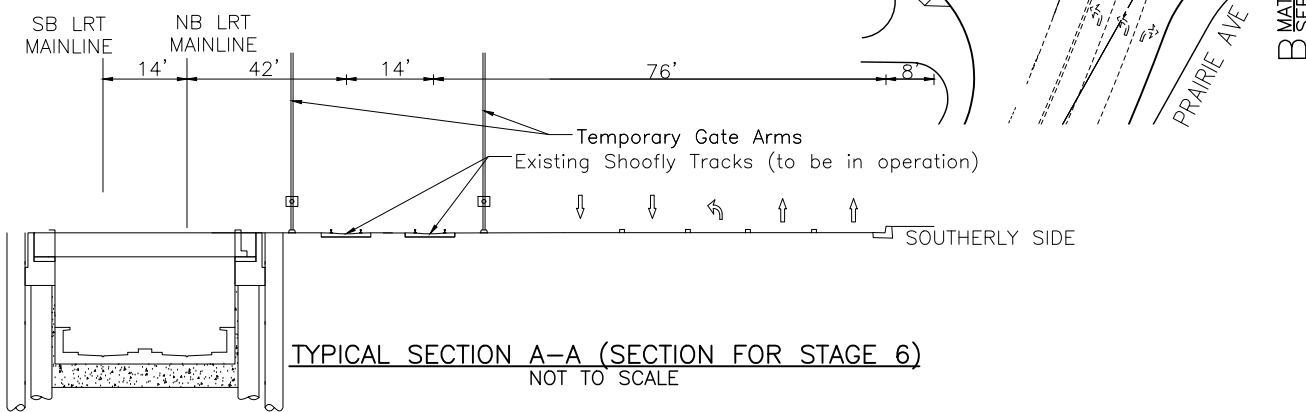
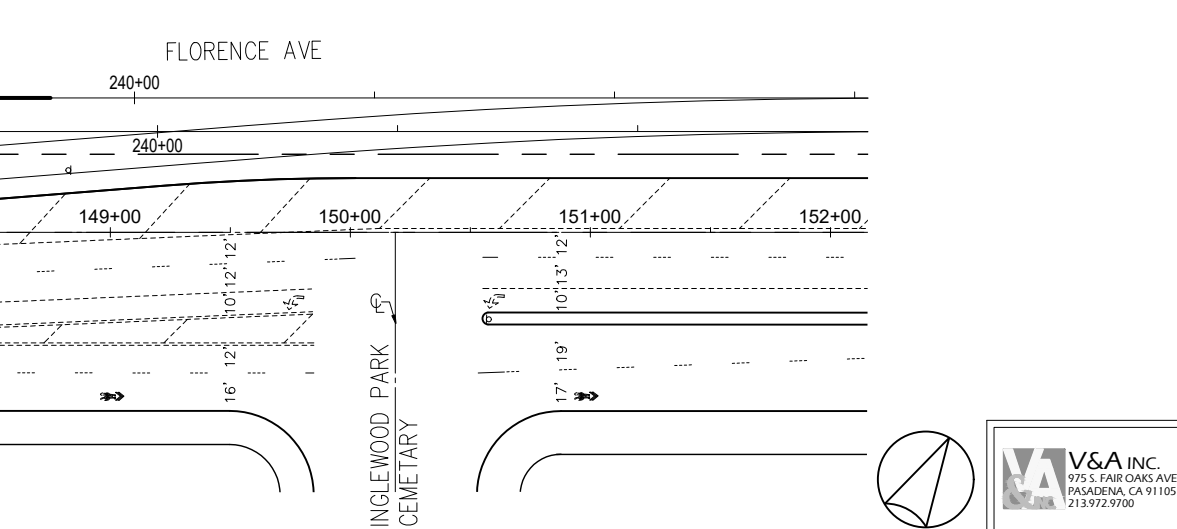
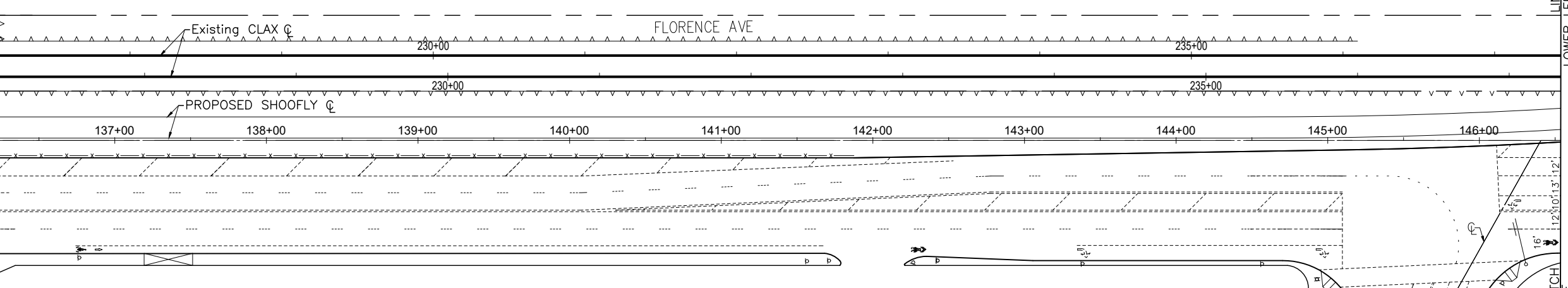
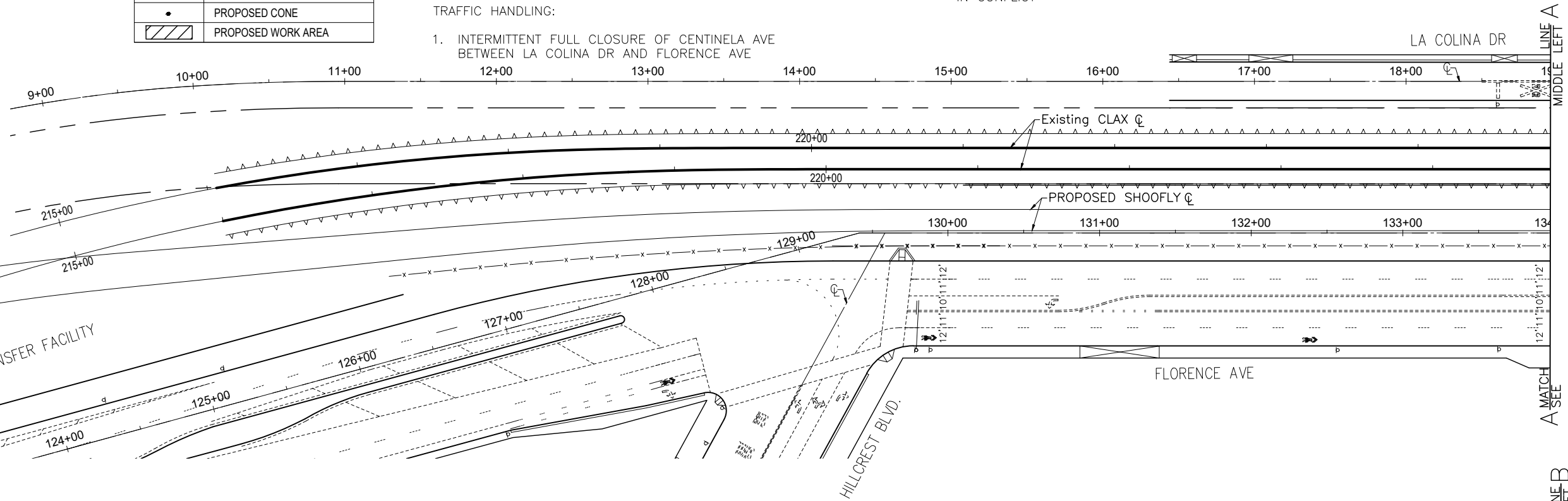
TRAFFIC HANDLING:

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



\$TIMES
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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 2		
STAGE CONSTRUCTION & TRAFFIC HANDLING					

STAGE 7 (5 MONTH DURATION):

NOTES CONT.

LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

CONSTRUCTION ACTIVITIES:

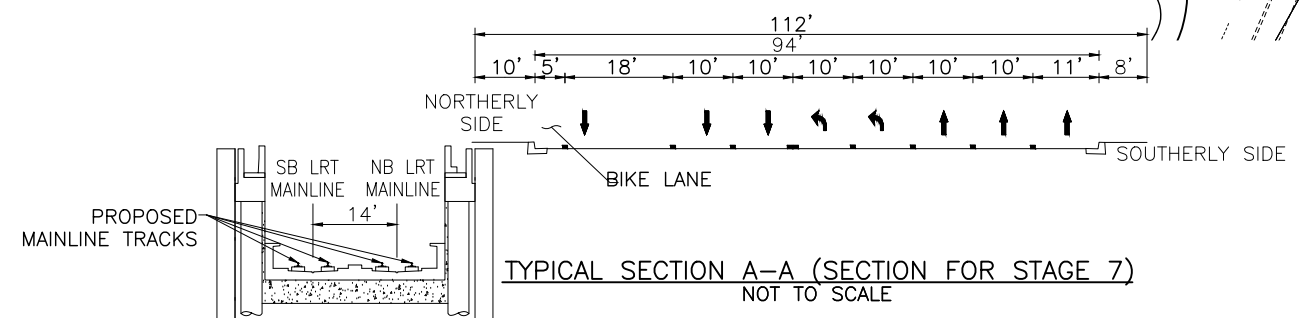
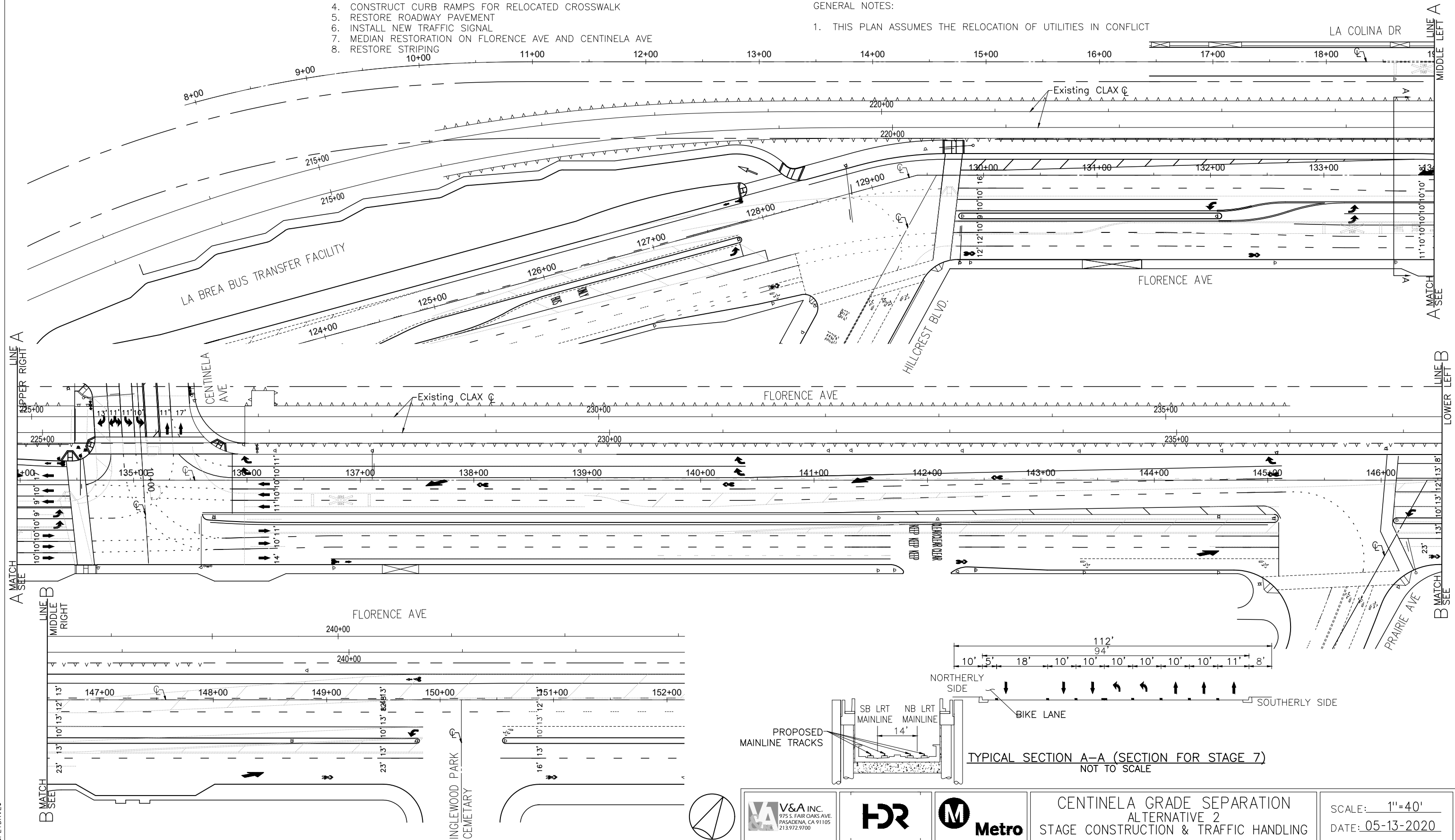
1. CONSTRUCT REMAINING TRACKWORK AND SYSTEMS
2. REMOVE SHOOFLY TRACKS AND SIGNAL EQUIPMENT (TEMPORARY/ SECTIONAL CLOSURES)
3. REVENUE TESTING
4. CONSTRUCT CURB RAMP FOR RELOCATED CROSSWALK
5. RESTORE ROADWAY PAVEMENT
6. INSTALL NEW TRAFFIC SIGNAL
7. MEDIAN RESTORATION ON FLORENCE AVE AND CENTINELA AVE
8. RESTORE STRIPING

TRAFFIC HANDLING:

1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

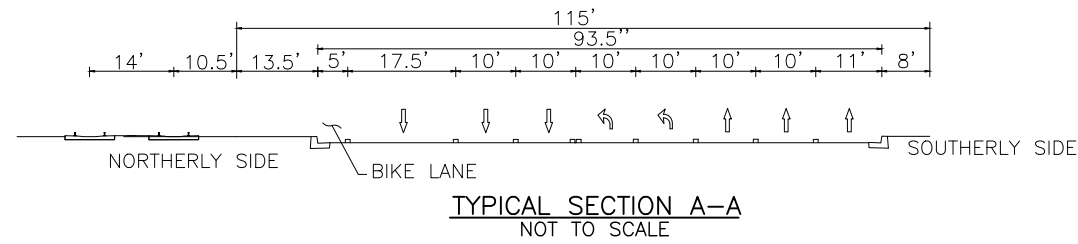
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$ DATES
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 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

STAGE 1 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

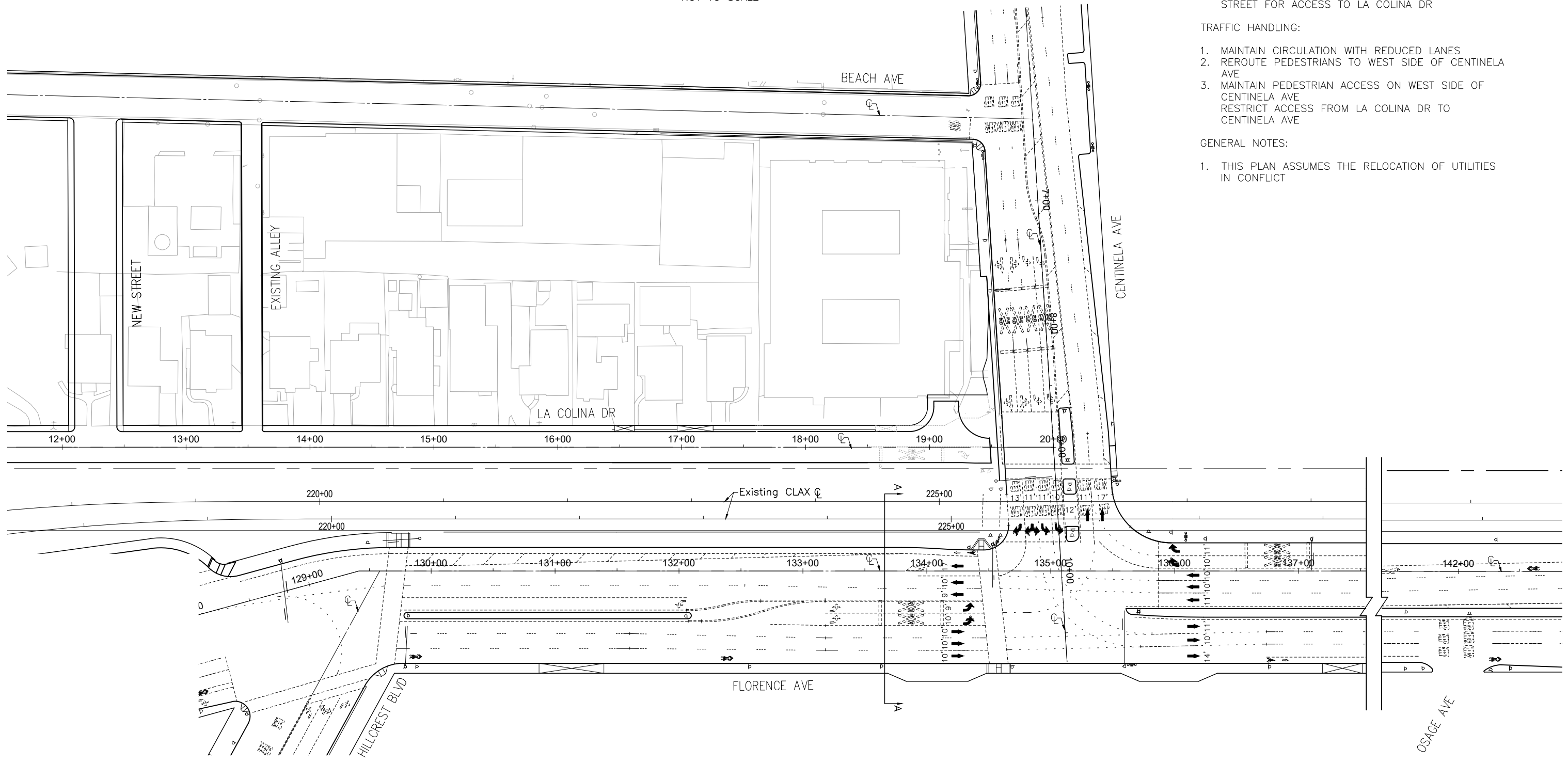
1. CONSTRUCT HAMMERHEAD TURNAROUND AND NEW STREET FOR ACCESS TO LA COLINA DR

TRAFFIC HANDLING:

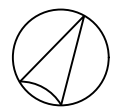
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. REROUTE PEDESTRIANS TO WEST SIDE OF CENTINELA AVE
3. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE
RESTRICT ACCESS FROM LA COLINA DR TO CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



\$TIMES
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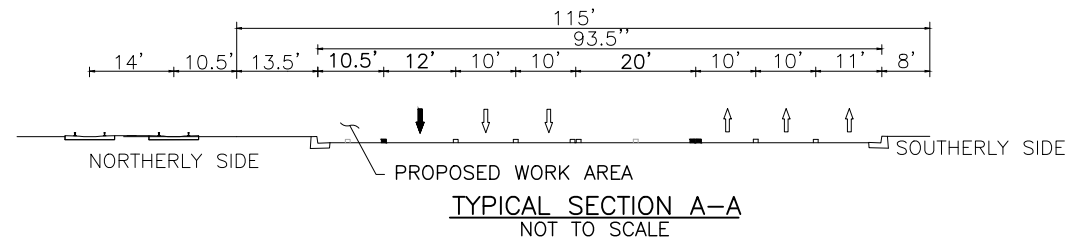
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HDR

Metro

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:

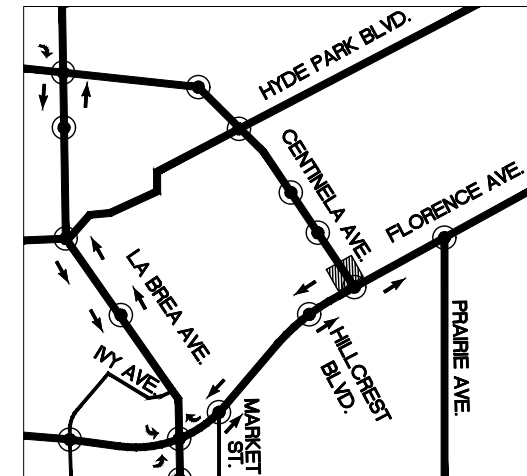
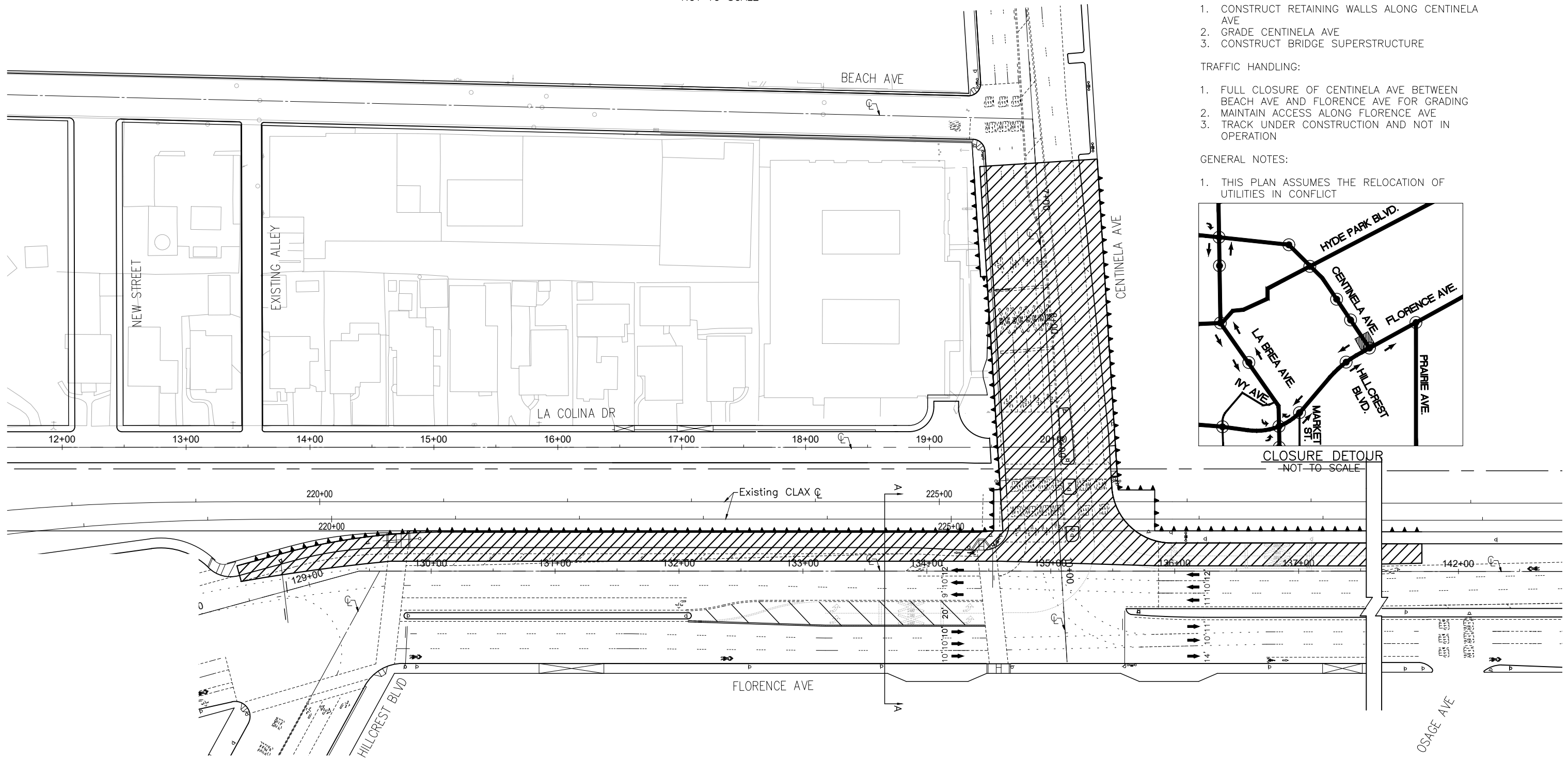
1. CONSTRUCT RETAINING WALLS ALONG CENTINELA AVE
2. GRADE CENTINELA AVE
3. CONSTRUCT BRIDGE SUPERSTRUCTURE

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

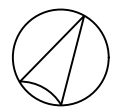
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



CLOSURE DETOUR
NOT TO SCALE

\$ TIMES
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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

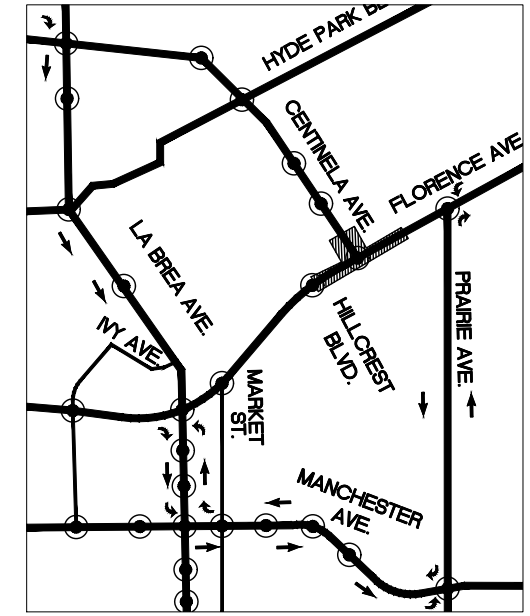
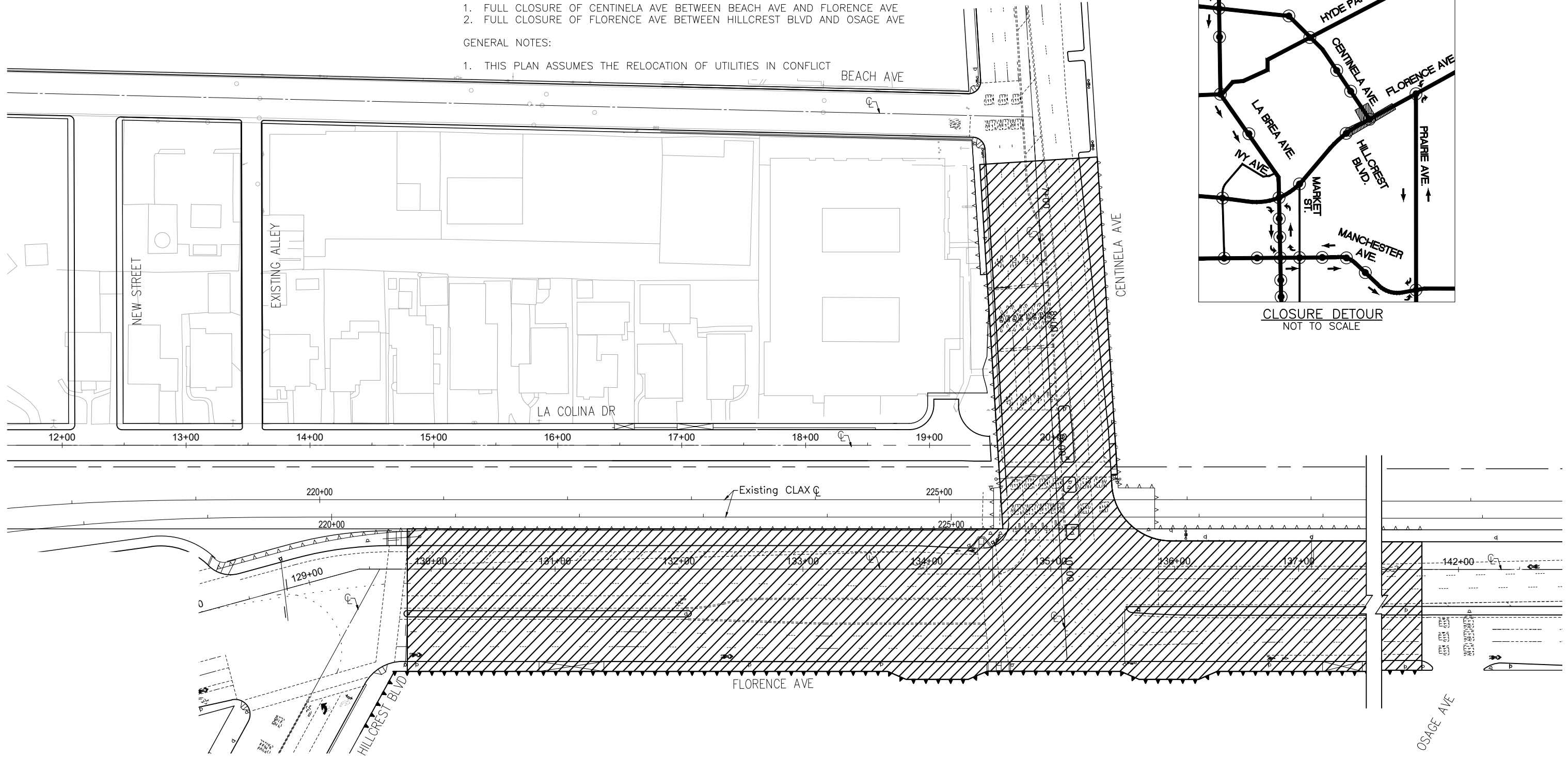
TRAFFIC HANDLING:

1. FULL CLOSURE OF CENTINELA AVE BETWEEN BEACH AVE AND FLORENCE AVE
2. FULL CLOSURE OF FLORENCE AVE BETWEEN HILLCREST BLVD AND OSAGE AVE

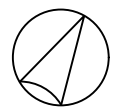
GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT

LEGEND	
	DIRECTION OF TRAVEL
	PROPOSED RETAINING WALL
	EXISTING RETAINING WALL
	PROPOSED WORK AREA



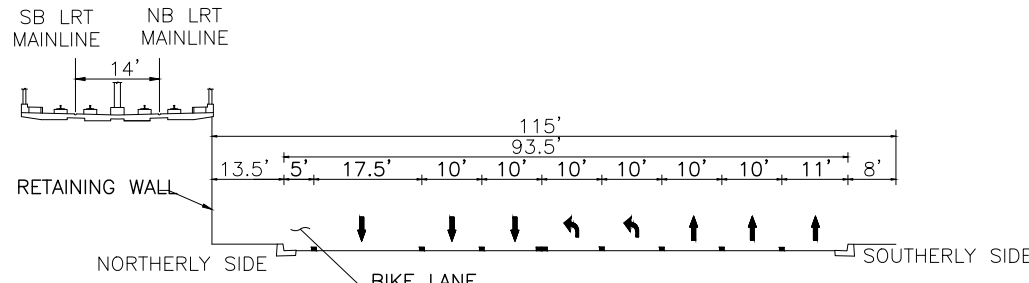
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CENTINELA GRADE SEPARATION
 ALTERNATIVE 3
 STAGE CONSTRUCTION & TRAFFIC HANDLING

SCALE: 1"=40'
 DATE: 05-13-2020



LEGEND	
	DIRECTION OF TRAVEL
	EXISTING RETAINING WALL

STAGE 4 (5 MONTH DURATION):

CONSTRUCTION ACTIVITIES:

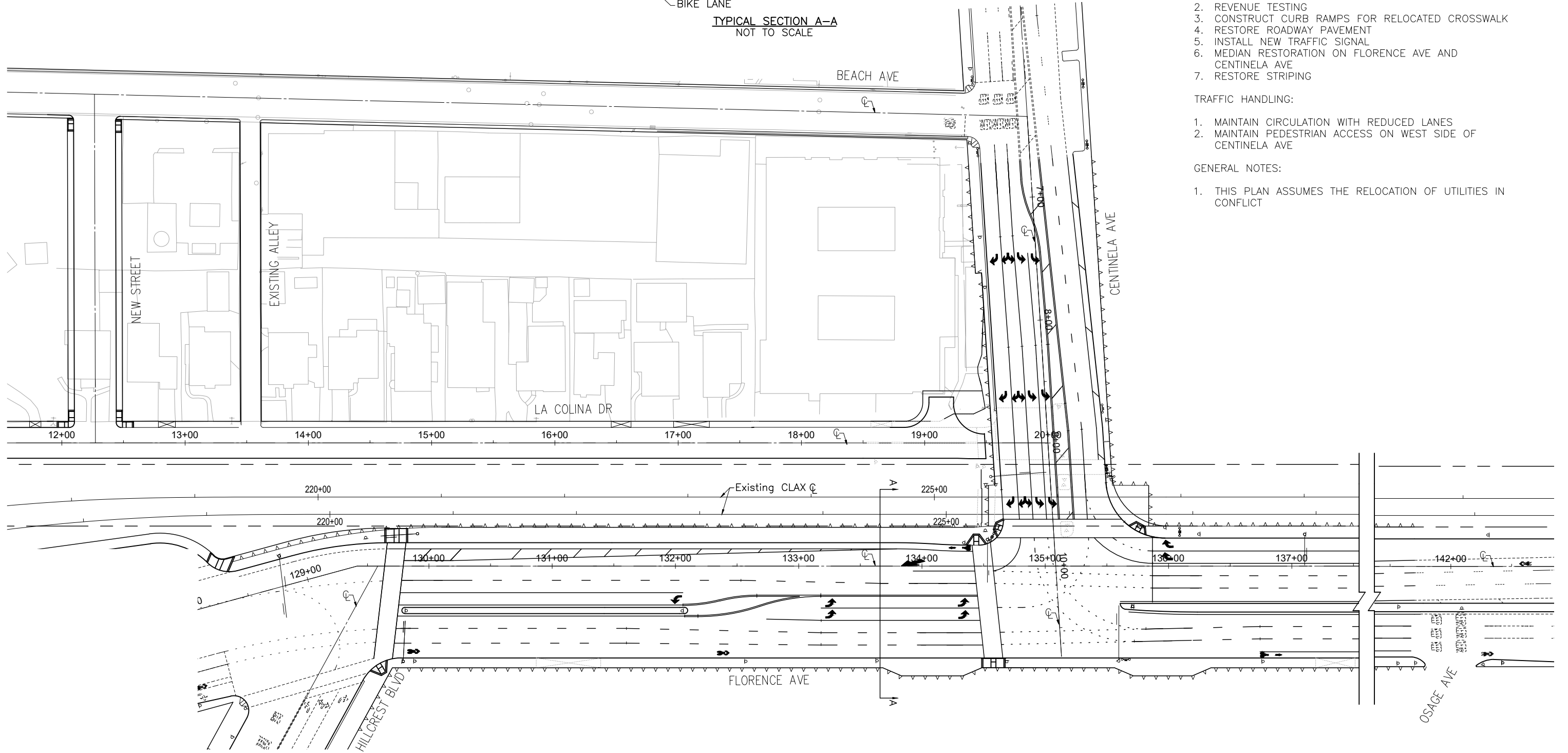
1. CONSTRUCT REMAINING TRACKWORK AND SYSTEMS
2. REVENUE TESTING
3. CONSTRUCT CURB RAMP FOR RELOCATED CROSSWALK
4. RESTORE ROADWAY PAVEMENT
5. INSTALL NEW TRAFFIC SIGNAL
6. MEDIAN RESTORATION ON FLORENCE AVE AND CENTINELA AVE
7. RESTORE STRIPING

TRAFFIC HANDLING:

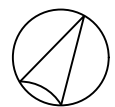
1. MAINTAIN CIRCULATION WITH REDUCED LANES
2. MAINTAIN PEDESTRIAN ACCESS ON WEST SIDE OF CENTINELA AVE

GENERAL NOTES:

1. THIS PLAN ASSUMES THE RELOCATION OF UTILITIES IN CONFLICT



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**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



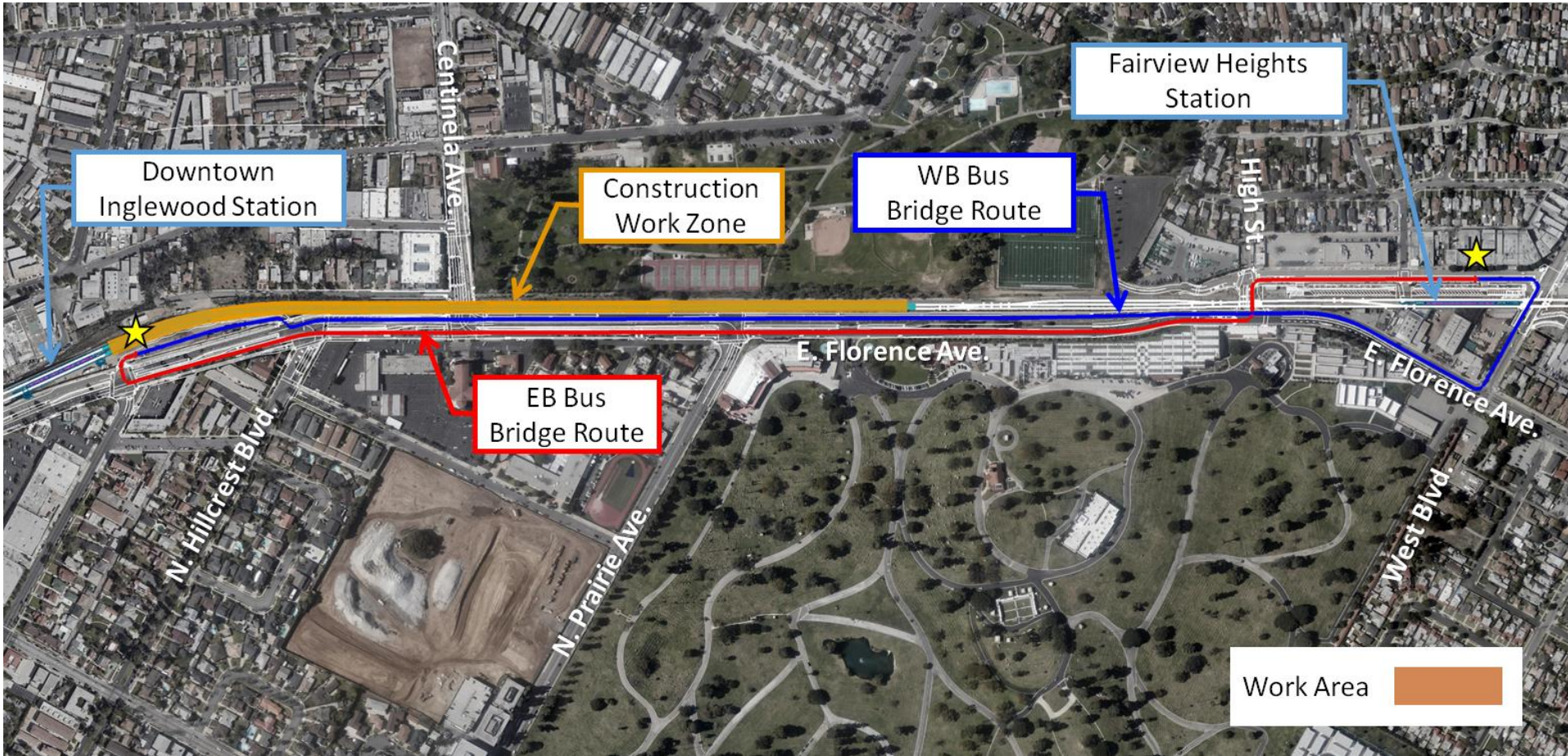
Project Funding Strategy

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 #: 2020-0349, 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.

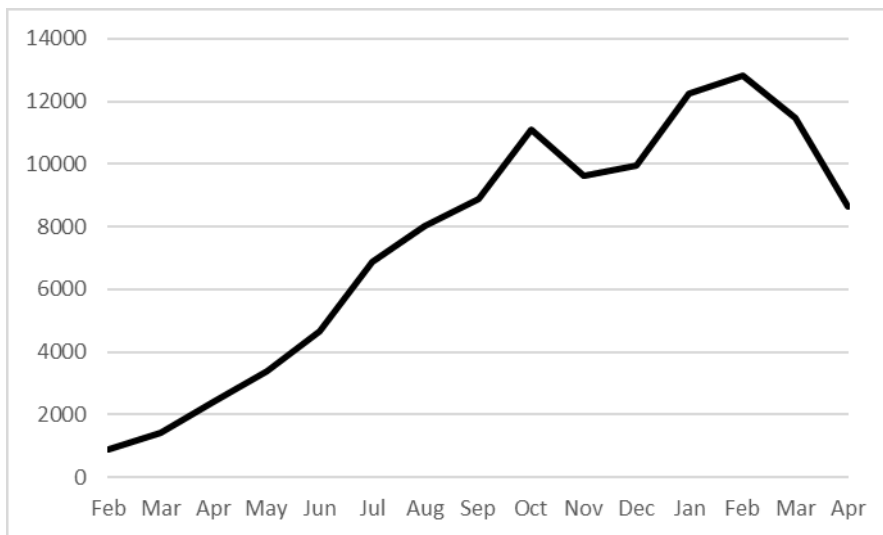
The discontinuation of shared rides is an industry standard for compliance with social distancing orders. Drivers were instructed to follow all guidance issued by the Centers for Disease Control and wipe down all vehicle surfaces before driving, and as often as possible during shifts. Drivers and riders 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

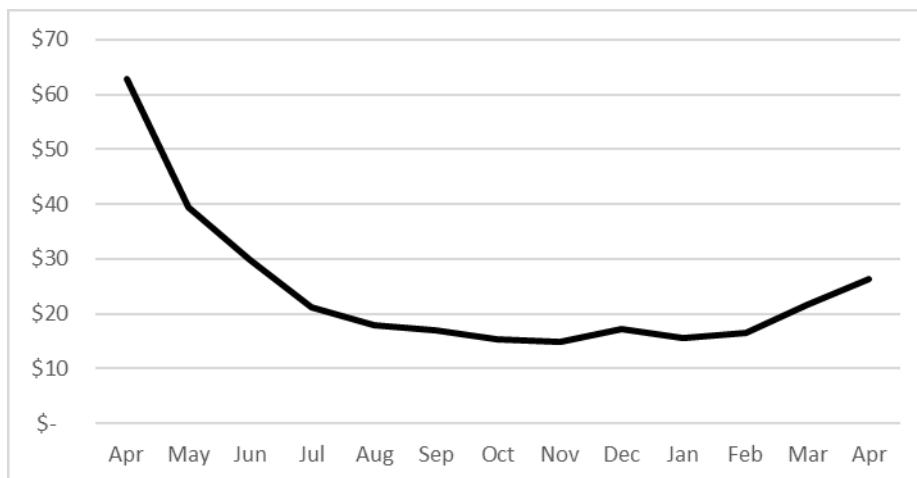
Ridership dipped during the winter holidays but was rising again afterwards. Ridership on MOD continued to grow up until Safer-at-Home orders were put in place, when ridership dropped by about 50% per week, significantly less than traditional Metro service ridership which decreased by about 60% and 75% 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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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.

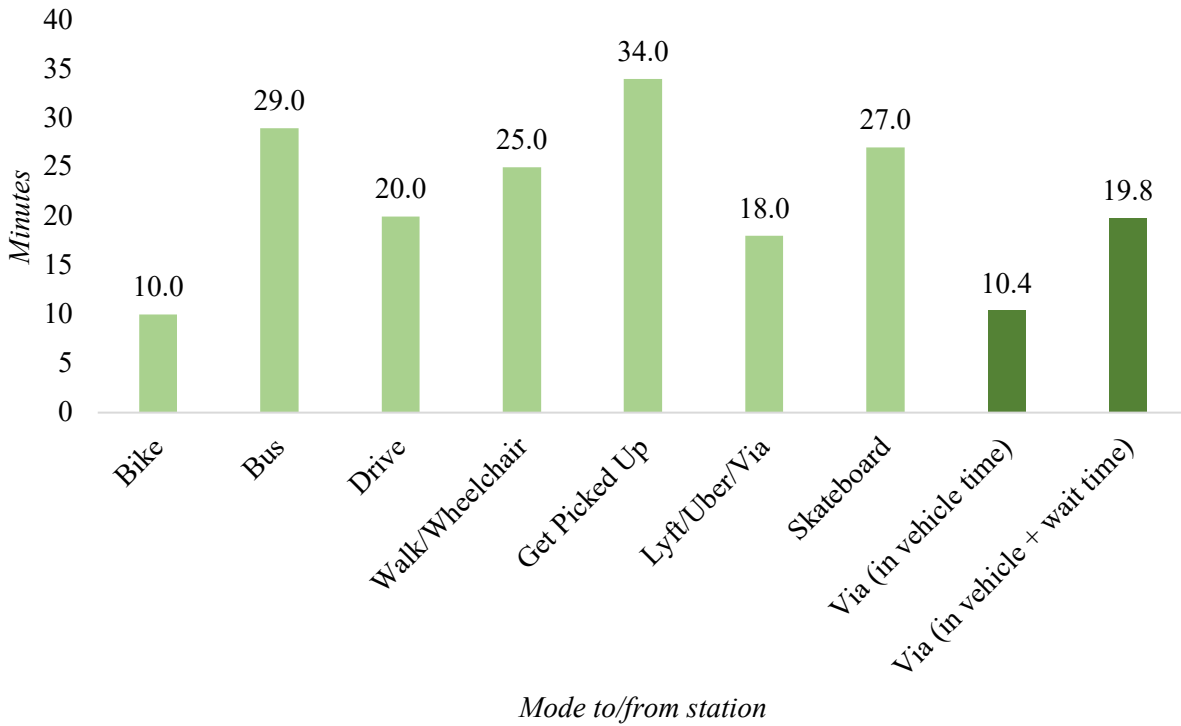
Before the service began, Metro conducted an in-person intercept administered in the three service zones in January 2019. These results were compared with a Via survey administered online between November 2019 and February 2020. The researchers note that the Via rider survey had a much smaller sample 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

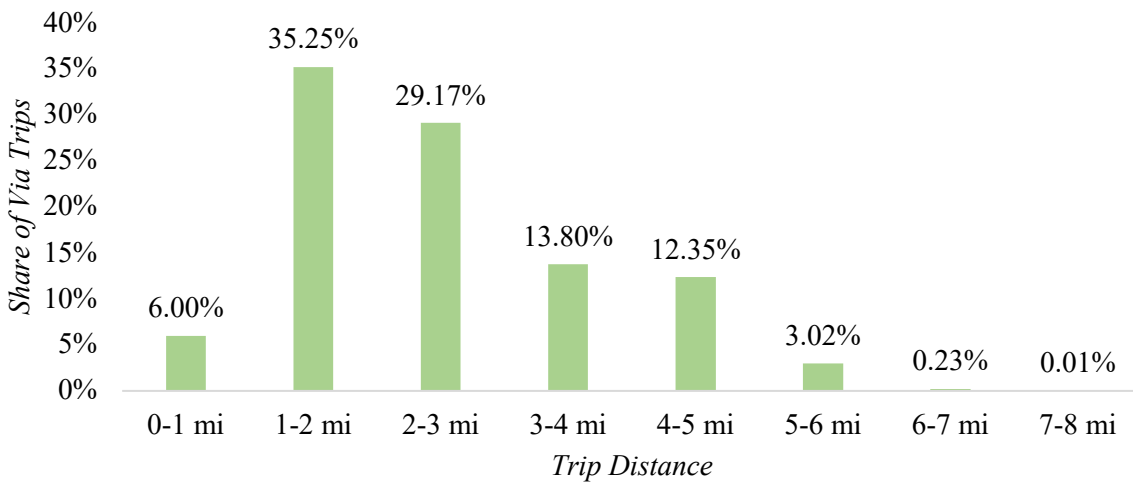
	Via	Metro Intercept
Drive	16.8%	17.5%
Dropped off/picked up	5.7%	0.9%
Lyft/Uber	17.3%	3.2%
Bus	33.4%	59.0%
Bike	2.7%	1.9%
Skateboard	0.5%	0.5%
Walk/wheelchair	10.6%	17.0%
Other	6.2%	0.0%
Did not use station	6.7%	0.0%
Total	100.0%	100.0%

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.



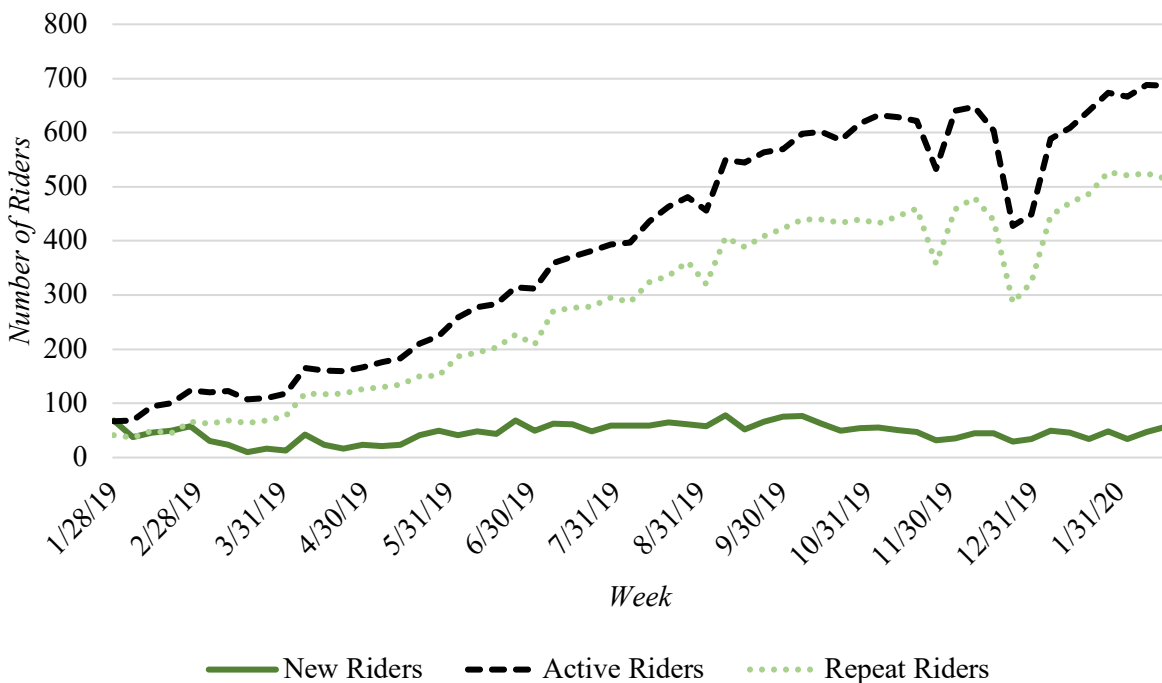
Share of Riders by Trip Request Frequency

	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).