Next stop: our healthy future.

Expo/Crenshaw First/Last Mile Plan

August 28, 2020



Los Angeles Metro

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Acknowledgments

The Expo/Crenshaw First/Last Mile Plan presents key pathways for improving safety and access to the Metro station, along public streets within the City of LA. Plan context, graphics, and narrative are designed to be used in support of funding applications from a variety sources, such as active transportation and streetscape grants. The recommended projects in this plan are high level concepts - specific design elements are not included nor specified. Further design investigation and ongoing community conversations are critical. Likewise, it is important that ownership, installation, and maintenance responsibilities of projects and project elements are established as project design moves forward. Further coordination among the City of Los Angeles, Metro, and community stakeholders will be necessary to identify and move forward priority first/last mile projects. Since projects are located on public streets, the City of Los Angeles should take the lead on project implementation moving forward.

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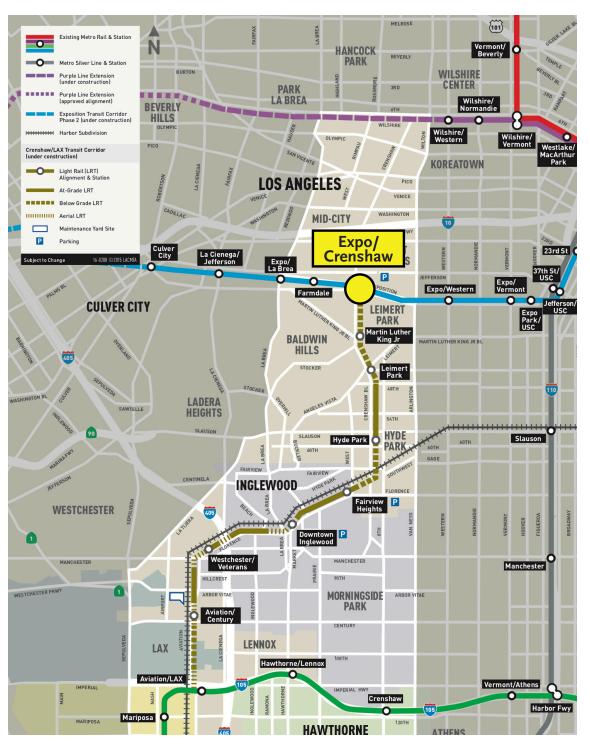
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Introduction

Introducing the **Project Area.**

The **Expo/Crenshaw station** is uniquely situated as a key transfer station, connecting regional trips to and from LAX, Santa Monica, **Downtown Los Angeles,** and farther to other key employment centers and destinations throughout the City.

The Expo/Crenshaw station will be the terminus of the Crenshaw/LAX line, currently under construction. Once open, the light rail line will run from the existing E Line (Expo Line) at Crenshaw and Exposition Boulevards, 8.5 miles south to the C Line (Green Line). The line will serve the cities of Los Angeles, Inglewood, El Segundo and parts of unincorporated Los Angeles County. The Expo/Crenshaw station will be a major transfer point for Crenshaw/LAX Line, E Line (Expo Line), and bus riders. This Plan identifies and prioritizes First/Last Mile (FLM) improvements to enhance the transit experience for all people.



The Expo/Crenshaw station will draw new local & regional riders.

The Expo/Crenshaw station is located near several regional destinations. These key attractions mean that many people recreating, shopping, working, and living in the area will be traveling through this station in the future.

Crenshaw Crossing

The Crenshaw Crossing project proposes a transit oriented, mixed-use community adjacent to the Expo/ Crenshaw station. With new community and commercial space, the areas around the transit station will be activated and energized.

West Angeles Church

The West Angeles Church currently occupies approximately 3.5 acres just north of the Expo/Crenshaw station. With a congregation of 24,000 people, this regional destination will also contribute to the activity at the station, for churchgoers.

Commercial Center

The commercial area to the south of the station includes big-box stores such as Walgreens, Big 5, Verizon, Chase, Starbucks, etc. Access to these stores from the station will require intuitive wayfinding as both patrons and store employees may pass through the station on their way to the commercial center.



Rail Line



Rail Station

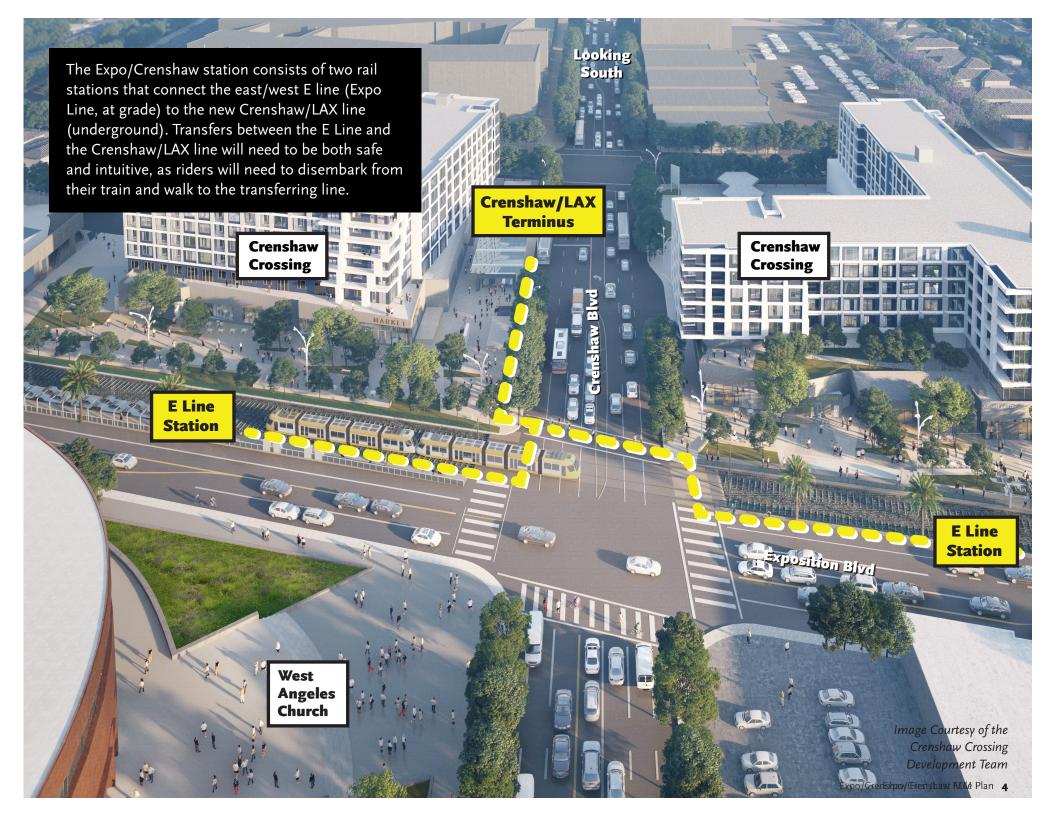


Rail Portal



Metro Parking

(& path of pedestrian travel to/from)

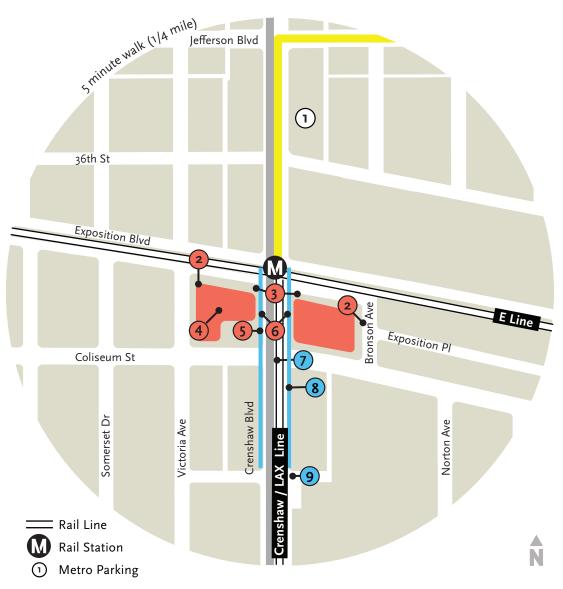


Significant planning has already been completed. We've integrated these ideas into the Plan.

Over the last two decades, a significant amount of planning has been completed for the area surrounding the Expo/Crenshaw station. The increased attention to the area is indicative both of the need for enhancements and an energetic and activated community. Further description of all plans can be found in Appendix C.

Relevant plans and projects include:

- Crenshaw Blvd Streetscape Plan
- Crenshaw Corridor Specific Plan
- Destination Crenshaw
- Expo/Crenshaw Joint Development Guidelines & proposed Crenshaw Crossing project
- Great Streets Challenge Grant
- Metro NextGen Study
- Metro Active Transportation Strategic Plan
- Metro First/Last Mile Strategic Plan
- Prop 1C Improvements
- Vision Zero Crenshaw Safety Improvements
- West Adams/Baldwin Hills/Leimert Community Plan



Prop 1C Improvements

Improvements include elements like: new trees, pedestrian lighting, sidewalk repairs, & curb ramps

Crenshaw Crossing Project

- Drop-off zone
- Street vacation
- Bike hub
- 5 Future additional portal to Crenshaw/LAX line
- 6 Bus turnouts

Crenshaw Blvd Streetscape Plan

Crenshaw/ LAX Transit Project

- 7 New crosswalk & dual curb ramps
- 8 New street trees
- 9 New single curb ramps

Let's Dive into Some of **Those Plans.**

Crenshaw Crossing Project

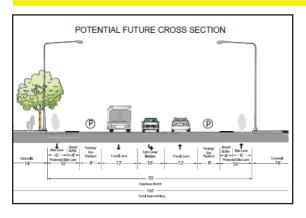


The Crenshaw Crossing rendering above shows the southwest corner of Exposition Blvd and Crenshaw Blvd.

The Metro Joint Development sites, in partnership with the County of Los Angeles, are located south of Exposition Blvd, on either side of Crenshaw Blvd. The western site is currently the LA County Probation Department Office, while the eastern site is being used as a staging area for the Crenshaw/LAX light-rail project. The sites include a set of buildings and spaces with mixed uses, consisting of residential over commercial and community space, and the Metro station entrance portal (see image of the

proposed project, left). The new development will provide a key connection for transit riders who are transferring between the E Line (Expo Line) and the Crenshaw/LAX Line. Transfers between the two lines will require coordination and enhanced safety measures for the high pedestrian volumes anticipated through the Crenshaw Blvd / Exposition Blvd intersection.

Crenshaw Boulevard Streetscape Plan



The Crenshaw Blvd Streetscape Plan details roadway reconfiguration concepts and recommended streetscape improvements along Crenshaw Blvd between the 10 Freeway and 79th St. Although recommendations vary throughout the corridor, the design concepts establish "unifying streetscape elements that are intended to tie the corridor together visually, and unique district streetscape

elements that differentiate the corridor's many distinct neighborhoods." The Crenshaw Blvd Streetscape Plan describes community support for a protected bicycle facility along Crenshaw Blvd, north of 48th St. Significant right-of-way changes would need to occur to accommodate a protected bicycle lane (see illustration from the Streetscape Plan, left).

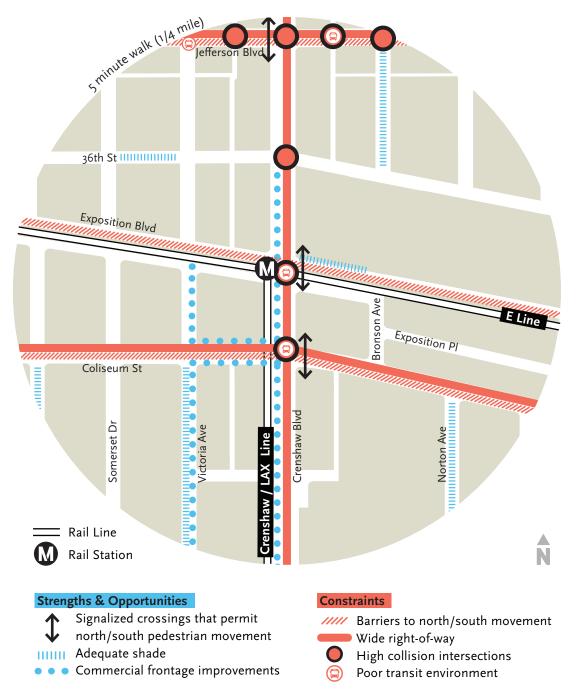
Further description of all plans can be found in Appendix C.

Summing it Up.

Existing walking, biking, and "rolling" conditions were studied to understand barriers and opportunities for improvement, relating to the First/Last Mile. The First/ Last Mile refers to the parts of an individual's transit trip, before and after boarding or disembarking from the Metro line. While bus and rail services often form the core of a trip, riders complete the first and last portion on their own, for example by walking, biking, driving, or rolling themselves to and from the nearest station. This is referred to as the First/Last Mile.

The analysis looked at community destinations, the transit network, safety, pedestrian amenities, street conditions, and the bicycle network. In the station area, existing signalized crossings are critical in providing safe crossings, especially across east/west thoroughfares. Shade and a mature tree canopy are present on some residential streets, but absent on commercial corridors. East/west streets around the station often act as barriers to north/south movement, as there are often over 1,300 feet between crossings. Wide streets in the area encourage high vehicular speeds and contribute to an unpleasant pedestrian environment. High collisions occur on Crenshaw Blvd and Jefferson Blvd, and the transit environment around the station is consistently poor, with little to no amenities.

Detailed mapping and analysis can be found in Appendix C.



Active

Listening

Project Process

The project followed Metro's First/ Last Mile methodology.

> 2019 Fall Summer

Gather Background Data

Existing plans and projects were analyzed to understand how they will impact and can inform first/last mile planning. Existing urban conditions were analyzed and mapped. This initial analysis set the stage for fruitful community conversations and draft design concepts.

Active Listening

The Plan involved multiple conversations with the community, including 3 stakeholder meetings, an online survey, and a community pop-up. Community members helped identify problem areas and locations for improvements. The findings from these conversations helped lay the foundation for first/last mile design concepts.

Stakeholder Conversations

Metro's Equity Platform

In 2018, the Metro Board approved the Metro Equity Platform Framework, which calls on the agency to address equity in multiple ways. This Plan uses the Equity Platform as a guide, identifying recommendations that derive from a diverse range of local voices. The West Angeles Community Development Corporation (CDC), a community based non-profit organization, was a key partner throughout the process. This section describes community conversations on which Plan recommendations are based. For each project design, most of the elements requested by the community have been included, and if not, explanations as to why are provided on the costing sheets.

Prepare Design Concepts

Pathways were identified for people to walk, bike, and roll the Expo/ Crenshaw station. Streetscape enhancements and recommendations were identified for each pathway, with a focus on the 1/4 mile around the station.

Compile Final Plan Report

Pop-Up

2020

Winter

Background data, community conversations, and refined design concepts were compiled into this Plan.

Agree O Neither agree

Survey

Disagree

Spring

Meeting with Stakeholders.

Three stakeholder meetings were assembled during the winter of 2019. All three meetings were held in the study area and included conversations with:

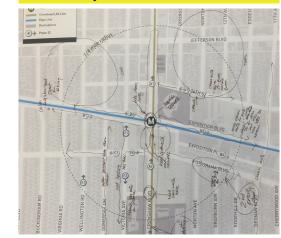
- A local church youth group (Nov 14, 2019)
- Representatives from Neighborhood Councils and an HOA (Dec 9, 2019)
- Bicycle and pedestrian advocates (Dec 17, 2019)

In discussions, community members, many of whom are transit dependent, focused almost exclusively on ways to improve the walking and biking environment around the station. Several participants urged the design and planning team to 'think big' and consider streets improvements that would provide significant improvements to the walking, biking, and rolling experience. Examples included protected bike lanes, Complete Streets, and a consistent landscaped parkway with curvilinear sidewalks. Crenshaw Blvd and Exposition Blvd rose to the top as the streets most in need of an overhaul for people walking, biking, and rolling. Street trees, pedestrian lighting, enhanced crosswalks, and improved bike facilities were noted overall as the most needed elements throughout the station area.

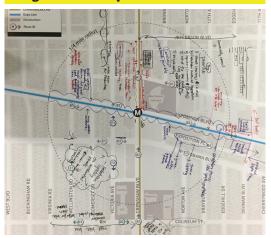
A detailed overview of findings can be found in Appendix D.



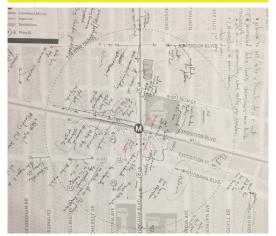
Youth Group Notes



Neighborhood Representatives Notes



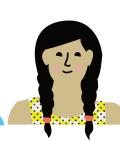
Bicycle and Pedestrian Advocates Notes















Popping Up at the Crenshaw Farmers' Market

A community pop-up workshop was held to gather feedback from the public at the Crenshaw Farmers' Market on February 28, 2020.

The pop-up included educational information and a playful activity that used an oversized "Connect 4" game for feedback. Participants were shown a menu of possible improvements and were instructed to choose the three streets they felt needed improvements the most. Participants placed corresponding improvement chips into the game board for their chosen streets. A blank chip was included for participants who wanted to write in their own idea or comment.

A detailed overview of findings can be found in Appendix D.

Participants

141 comments

Most voted streets

Crenshaw Blvd, Obama Blvd, & Jefferson Blvd

Most important improvements

Street trees, enhanced crosswalks, & pedestrian lighting



Crenshaw snapshot



Voting for trees on Crenshaw Blvd



First/Last Mile voting chips



Community Survey

The purpose of the online survey was to allow additional community members to have a chance to share their thoughts regarding improvements needed around the Expo/Crenshaw station. The questions on the survey aligned with the questions asked during the pop-up; the goal was to gather feedback to help prioritize first/ last mile improvements within the 1/4 mile around the station. The survey, which was online for 3 weeks, was distributed via Metro social media, listservs, and through community members and organizations who had previously participated in stakeholder roundtable meetings. Respondents submitted 130 survey entries. 72% of respondents reported that they live within the study area.

> Similar to the findings from the pop-up and the input received from the stakeholder meetings, Crenshaw Blvd, Obama Blvd, Exposition Blvd, and **Jefferson Blvd** were the top 4 streets that were brought up by survey participants.

Survey Entries

Top 3 streets that need improvements

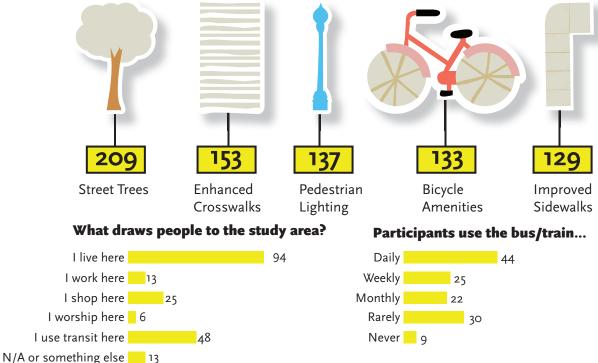
Crenshaw Blvd

Obama Blvd

Exposition Blvd

Top Improvements Needed

(Total number of votes for each improvement in yellow boxes; top 5)



The Pathway

Strategy

Improving station access means improving a complete network of streets, enhanced for multiple modes.

Understanding the Recommendations

Take a look first at the First/Last Mile Pedestrian Pathway Network and Wheels Pathway Network maps to understand the streets that have been chosen for improvement. These streets were selected as a result of community conversations - each street was recommended for inclusion by the community, except in one case, where Somerset Dr was added to the network because it solves a particular issue that was identified by participants (providing a safe alternative to Crenshaw Blvd for people who are biking and walking). The Pedestrian Pathway Network map includes streets that are within a comfortable walking distance from the station (1/4 mile), while the Wheels Pathway Network map looks further out (1 mile), given the longer distance people are willing to bike or scoot, compared to those walking.

In recognition of the importance of safe and visible, street crossings, an Intersections Treatment Diagram is included, illustrating recommended improvements for intersections near the Expo/Crenshaw station, as being able to cross frequently and regularly is important for station access.

Note: Recommended dimensions provided are for guidance purposes only to showcase desired spatial allocation. Actual dimensions will vary based on on-the-ground conditions and detailed study.

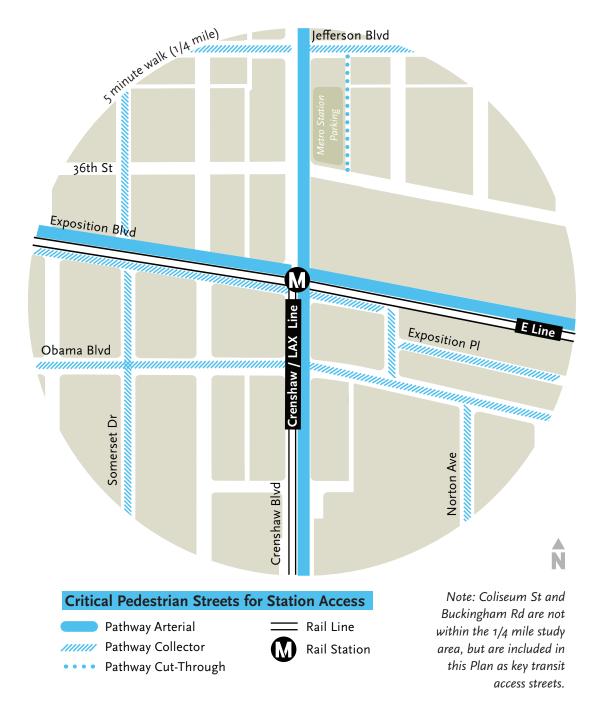
While all streets should be comfortable for people walking, the First/ **Last Mile Pedestrian Pathway Network** highlights streets that are especially critical for access.

Pedestrian Pathway Network

The First/Last Mile Pedestrian Pathway Network includes streets, primarily identified by the community, which are critical for station access for people walking. Streetscape improvements should be focused along these streets.

The Network is composed of three different types of pathways:

- **Pathway Arterials** are primary routes that connect directly to the station. Here they include Exposition Blvd and Crenshaw Blvd.
- **2** Pathway Collectors are secondary routes that connect to the two Pathway Arterials
- Pathway Cut-Throughs are additional shortcut routes or pathways to improve access to key destinations.



For bike-related improvements, let's look beyond the 1/4 mile, at new bike facilities that can link in with the regional network.

Wheels Pathway Network

The goal for the proposed Wheels Pathway Network is to optimize access for people riding, scooting, and otherwise rolling to and from the station. Proposed 'wheels' facilities connect to existing and city-proposed bike lanes and help to close gaps. See the Toolkit in Appendix A for example photos of each type of proposed facility. All proposed facilities should be friendly for both expert and novice riders of all ages. This means that on major streets, bike facilities should be protected, vertically separated from vehicle lanes, and well-delineated. On slower neighborhood streets, bike facilities should be enhanced with traffic calming measures and streetscape improvements.

In addition, Bicycle Friendly Intersections (BFIs) and a Green Zone are recommended. BFIs can include bike boxes, conflict striping, and bike signage, as appropriate. The Green Zone can include transfer amenities such as a drop off zone, electric vehicle charging, bike share stations, micro-mobility parking, and a mobility hub.

See Appendix A and the FLM Strategic Plan for more information.



Using Metro's First/ Last Mile suite of improvements, the recommendations for each key street are summarized here.*

Community stakeholders additionally expressed interest in engaging local artists to design public art, gateways, and other streetscape elements to reinforce the cultural identity of the corridor. Although specific locations for public art are not identified in this Plan, visual enhancements are supported within the study area. As an example, artists can be commissioned to enhance the character of commercial corridors by artfully painting blank building facades.



Name	Түре	Enhanced Crosswalks	Speed Cushions	Corner Curb Extensions	Directional Ramps	Improved Sidewalks	Street Trees	Street Furniture	Wayfinding **	Enhanced Bus Stops	Pedestrian Lighting	Bike Facility (e.g. lane or othe
Crenshaw Blvd	Arterial	0			0	0	0	0	0	0	0	0
Obama Blvd	Collector	0		0	0		0		0		0	0
Exposition Blvd	Arterial	0		0	0		0		0		0	0
Exposition Blvd (S of Expo Line)	Collector	0		0	0		0				0	0
Jefferson Blvd	Collector	0		0	0	0	0		0	0	0	0
Somerset Dr	Collector	0	0	0	0		0		0		0	0
Norton	Collector	0	0	0	0		0		0		0	0
Coliseum	Collector	0		0	0		0		0	0	0	0
Exposition Pl	Collector						0	0	0		0	0
Alley (E of Crenshaw)	Cut- Through								0		0	

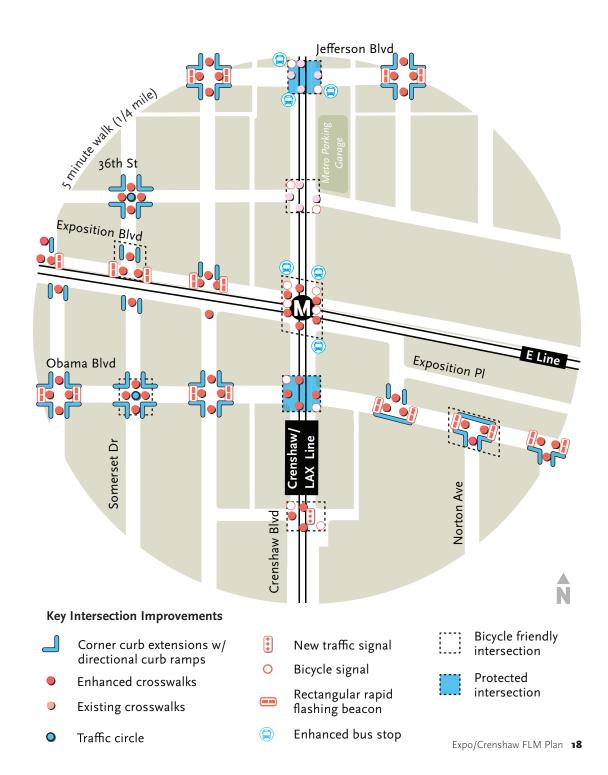
^{*} Not all improvements recommended in the Plan are included in this matrix. See project pages for details.

^{* *} The design of wayfinding and signage as it relates to Metro Rail needs to follow Metro's Trailblazing Signage Standards to ensure that Metro wayfinding is consistent and recognizable to riders accessing the system across LA County.

Facilitating easy and pleasant crossings at intersections is key for First/Last Mile access.

Improving intersections for First/Last Mile access can take many forms. Usually the intent is to make crossing the street easier and safer, through increased visibility, shorter crossing distances, slowing or stopping traffic, or bike-friendly design.

Corner curb extensions with directional curb ramps and enhanced crosswalks are recommended at various locations along many First/Last Mile Pathways throughout the 1/4 mile study area. Traffic circles are added at key intersections along Somerset Dr, Norton Ave, and Buckingham Rd to transform them into Neighborhood Greenways. New rectangular rapid flashing beacons are recommended along Jefferson Blvd and Obama Blvd to allow for more frequent crossings on these busy streets. Bicycle signals are recommended at intersections along Crenshaw Blvd.



Project

Specifics

Recommendations consider the full **experience - what** it feels, smells, looks, and sounds like around the station.

Streetscape enhancements are presented for each key street within a 1/4 mile of the station. The order in which the streets are presented in this section reflects the streets that were ranked the highest in response to the following online survey question: "Which street needs improvement the most?" Crenshaw Blvd received the most votes (122), followed by Obama Blvd (74), Exposition Blvd (69), Jefferson Blvd (65), Coliseum St (32), and Exposition Pl (18). Norton and Somerset were not options for this question. This ranking is supported by the Project Prioritization presented in the final section of this Plan.

Here we present recommendations for a network of key streets* that can be used to safely and pleasantly walk, bike, and "roll" to and from the Metro station. Recommendations include public realm improvements, taking into consideration the full experience of getting to and from the station - what does it feel like. what does it look like, what does it sound like? Adding trees and shade can make it feel more comfortable and **smell** more pleasant with cleaner air, adding sidewalk lighting can make it look nicer and easier to navigate, and slowing traffic or moving vehicles away from the sidewalk, can make it **sound** calmer, quieter, and more welcoming for people not in vehicles.

Tear out the pages for the street you are interested in.

This packet can be used for funding applications or to build community support. Street recommendations follow the same organization:

- Overview of goals
- 2 ID of community-identified issues & opportunities
- 3 Illustration of improvements, via a plan view, street sections, and in some cases 3D before/after renderings
- 4 Costing information



^{*} Recommendations in this Plan are compatible with or complement already-planned or proposed improvements by the City of LA and others, as noted in the Relevant Plans and Projects Memo. (See Appendix C)

Crenshaw Blvd is a major north-south commercial corridor that connects directly to the Expo/Crenshaw station. There is strong community support* for both pedestrian and bicycle improvements along the street. Currently, Crenshaw serves various Metro bus lines and has up to three lanes of traffic in each direction and a center turn lane. When it comes to walking and biking, the street is fairly uncomfortable. Adding a protected bike lane would make it much nicer for cyclists and also for pedestrians, since vehicles would be further away from the sidewalk. This proposal aligns with the "Aspirational Bike Lane" concept designed in the City's Crenshaw Blvd Streetscape Plan.

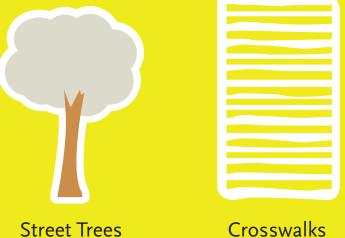
* Crenshaw Blvd, especially the segment north of Exposition Blvd, was the most commented upon street during the stakeholder meetings, community pop-up, and the online survey. It also rose to the top for both pedestrian- and wheels- project prioritization.

Crenshaw Blvd



What's needed the most?

Top 3 Requested Improvements





Sidewalk Improvements

**

Other Items that Need Attention

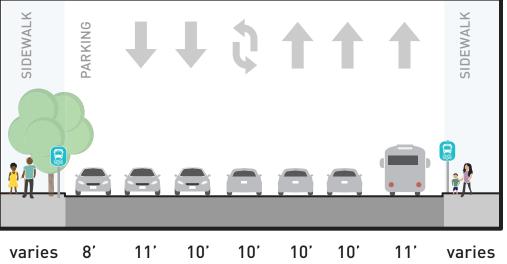
A direct connection is needed for people riding their bikes to the station, it is generally unpleasant to walk on the street due to the heat and lack of shade, swiftly moving vehicles, and sidewalks in need of repair. The street is also missing wayfinding signage, which would be very helpful in this area. The improvements from the Crenshaw Blvd Streetscape Plan should be implemented.

^{*} From the online survey

Crenshaw Blvd

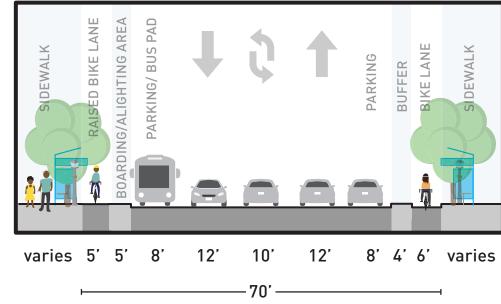
Roadway Changes

Existing Street



- 70' –

Proposed Street



Summary

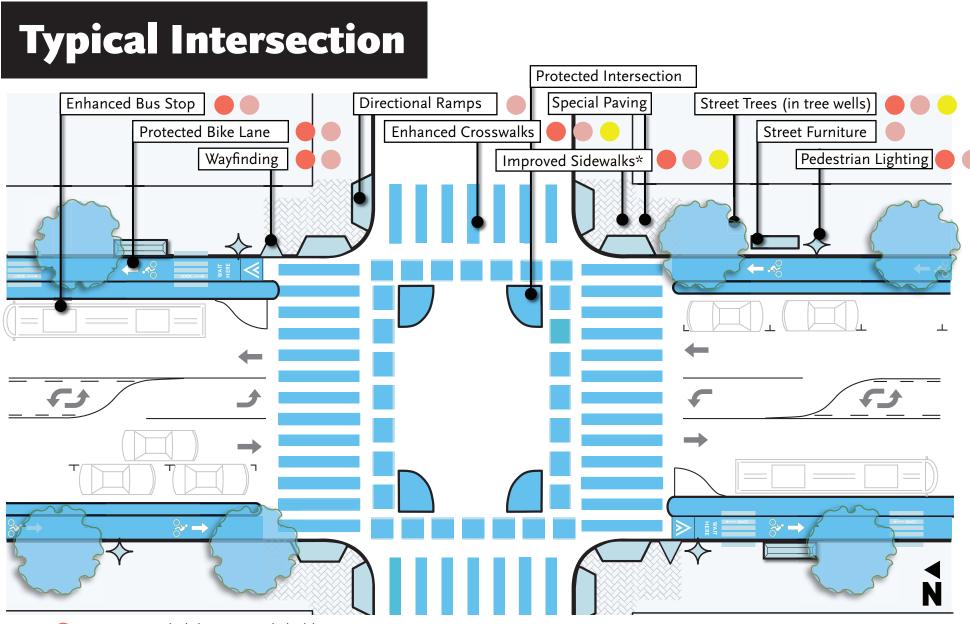
Major traffic impacts - remove 2 northbound travel lanes and 1 southbound travel lane Retain parking on west side and add parking on the east side

Add in protected bike lane

Introduce raised bike lane with narrow boarding/alighting area at bus stops

Add Protected Intersections where feasible (see illustration, next page)

Crenshaw Blvd

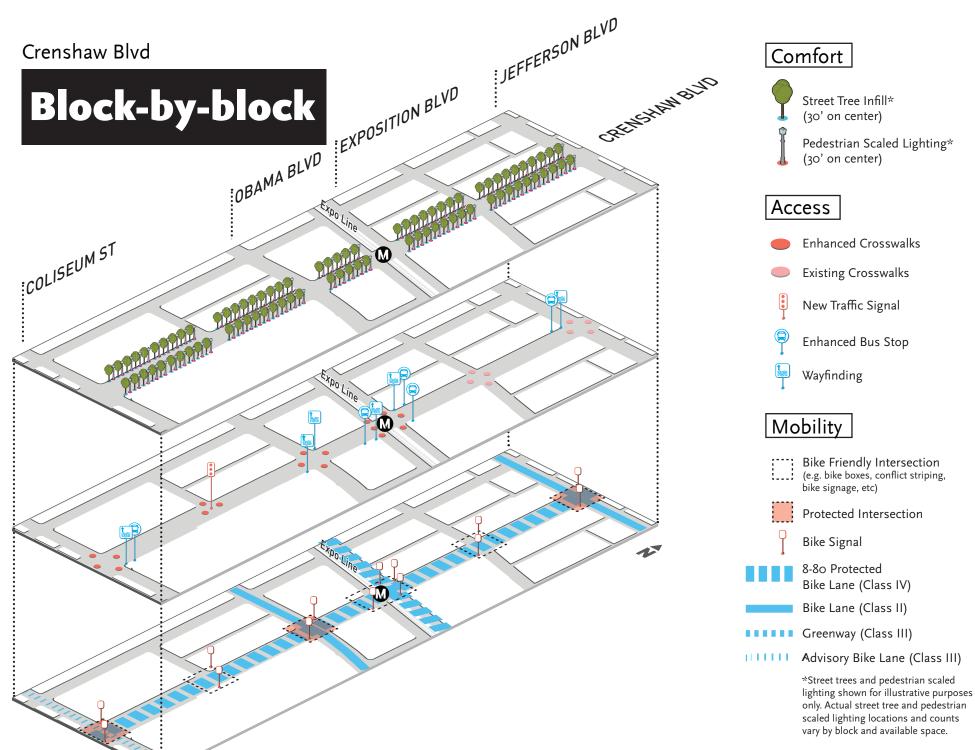


Recommended during a stakeholder meeting

Recommended during the community pop-up

Element in the top 3 of those supported in the online survey

* Further study needed to identify specific spot locations for sidewalk improvements. Not included in cost estimate.





Crenshaw Blvd

How much will this cost?

Pedestrian Projects

Street trees (in tree well)	\$407,000		
Pedestrian lighting	\$945,000		
Sidewalk paving enhancements	\$588,000		
Enhanced crosswalks	\$93,240		
Outboard bus platforms	\$210,000		
Wayfinding	\$12,600		
Signal modifications	\$315,000		
Green zone	\$60,000		
Misc/contingency/construction/soft costs	\$3,535,000		
Total (rounded)	\$6,166,000		

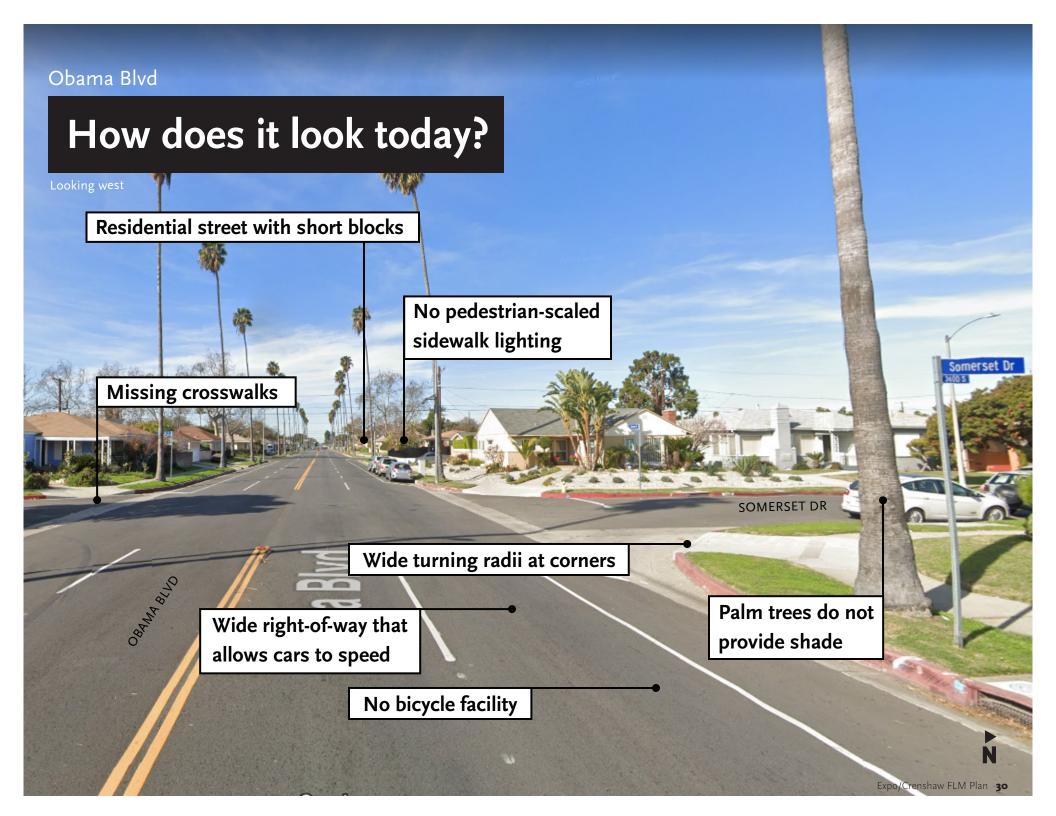
Wheels Projects

Bike signals	\$350,000		
Bike friendly intersections	\$270,000		
8-80 protected bike lane (Class IV)	\$2,120,000		
Protected intersections	\$1,500,000		
Misc/contingency/construction/soft costs	\$5,689,000		
Total (rounded)	\$9,929,000		

Other items recommended by the community, which were not integrated into the design plans: All recommendations provided by the community were folded into the Plan. Traffic calming will result from the reduction in lanes due to the addition 8-80 protected bike facility (Class IV).

Obama Blvd is as a key east-west residential route located south of the Expo/Crenshaw station. Obama Blvd is often used as a vehicular cut-through and it therefore sees high traffic speeds. Curb extensions with enhanced crosswalks will help to calm traffic and facilitate pedestrian and bicyclist movement across and along the street. A bike lane is recommended, requiring removal of one travel lane in each direction. The goal is to make Obama Blvd more people-oriented and friendly to use while walking to and from the station.

Obama Blvd



What's needed the most?

Top 3 Requested Improvements







Bike Amenities

**

Other Items that Need Attention

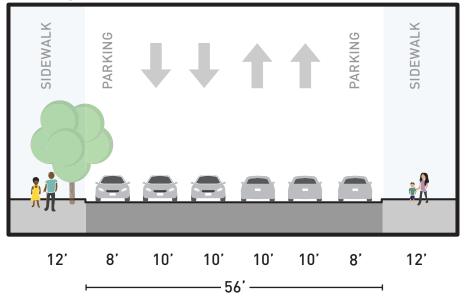
Dark at night, long blocks, and the wide street encourage speeding traffic.

^{*} From the online survey

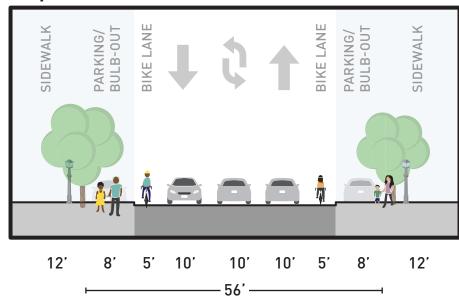
Obama Blvd

Roadway Changes

Existing Street



Proposed Street



Summary

Remove one travel lane in each direction

Introduce center turn lane

Retain parking

Add corner curb extensions

Add bike lane

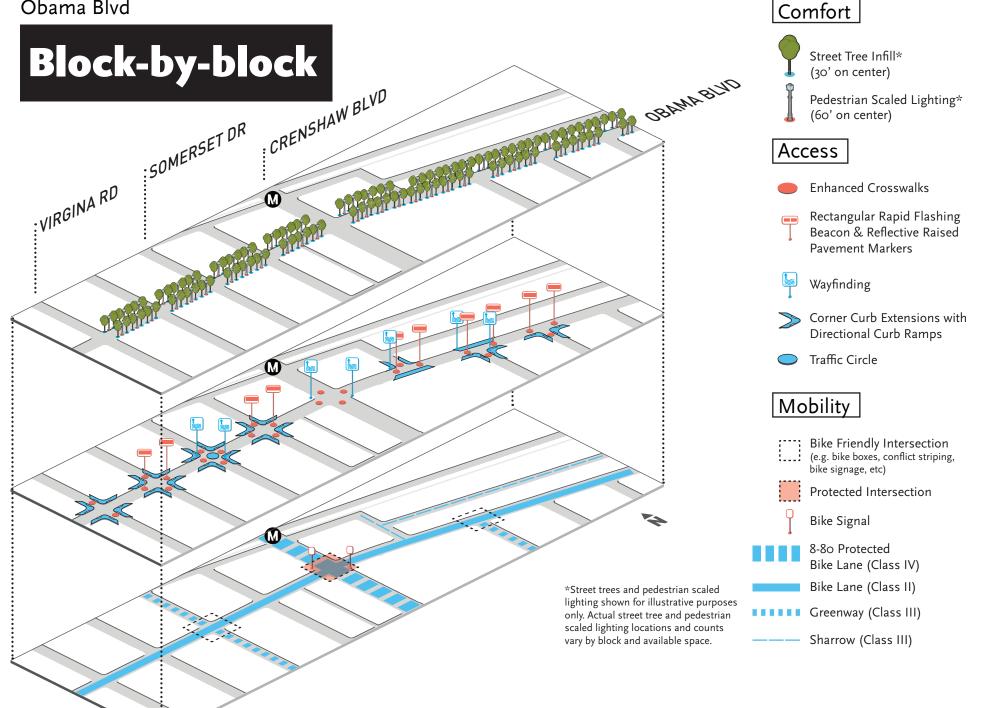
Obama Blvd

Typical Intersection Wayfinding Street Trees (in parkways) Corner Curb Extensions with Directional Ramps Pedestrian Lighting **Enhanced Crosswalks** Bike Lane Recommended during a stakeholder meeting

Recommended during the community pop-up

Element in the top 3 of those supported in the online survey

Obama Blvd



Obama Blvd

How much will this cost?

Pedestrian Projects

Street trees (in parkway)	\$112,000
Street trees (in tree well)	\$133,200
Pedestrian lighting	\$491,400
Bulb-outs with directional curb ramps	\$672,000
Enhanced crosswalks	\$82,880
Wayfinding	\$14,700
Rectangular rapid flashing beacons	\$400,000
Misc/contingency/construction/soft costs	2,564,000
Total (rounded)	\$4,471,000

Wheels Projects

Bike signals	\$50,000
Bike friendly intersections	\$150,000
Bike lane (Class II)	\$324,000
Misc/contingency/construction/soft costs	\$711,000
Total (rounded)	\$1,235,000

Other items recommended by the community, which were not integrated into the design plans:

All recommendations provided by the community were folded into the Plan except ideas for street furniture and bus stop improvements. Because of the residential character of the streets and because there are not currently any buses that run along the street, these elements are not included.

Regarding traffic calming (recommended by the community), while not overtly included in the Plan via elements like speed humps, traffic calming will result from the proposed lane reduction and new corner bulb-out extensions.

Exposition Blvd runs east-west, immediately adjacent to the Expo Line. It is separated by a landscaped buffer from the Metro tracks and currently has a narrow bike lane. The street is pleasant to walk down, because of the street's narrow width, the trees and new landscaping, and the nice sidewalks. The long Expo Line tracks offer a great opportunity to introduce a bi-directional protected bike lane to improve the experience for those riding a bicycle along the street.

Exposition Blvd



What's needed the most?

Top 3 Requested Improvements





Sidewalk Improvements

**

Other Items that Need Attention

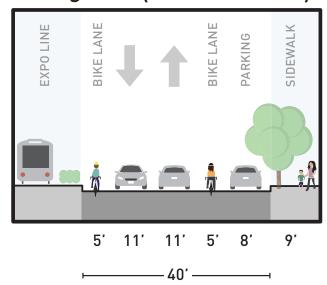
Narrow bike lane along tracks, dark at night, no wayfinding

^{*} From the online survey

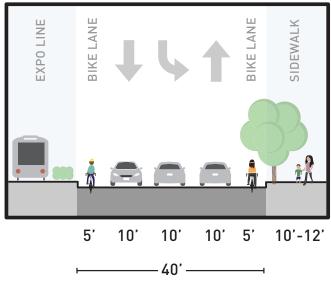
Exposition Blvd

Roadway Changes

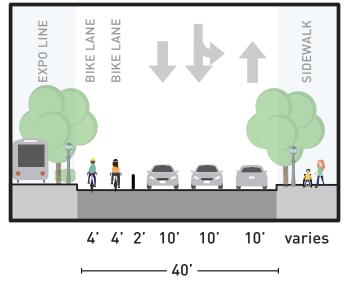
Existing Street (West of Crenshaw)



Existing Street (East of Crenshaw)



Proposed Street



Summary

Retain travel lanes

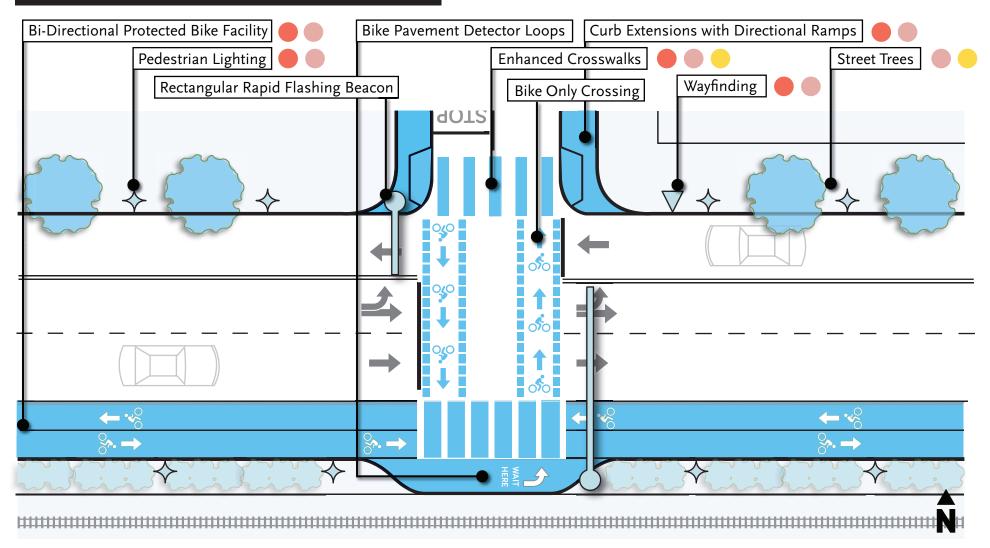
Remove parking lane west of Crenshaw Blvd Add a seamless and protected bike facility

A Note on Implementation:

Adding a two-way protected bike lane along Exposition Blvd will require careful design and engineering. Additional space may be required from the existing landscape median along the tracks, especially in areas where safe north-south turning movements must be accommodated for cyclists. Access in and out of the protected bike lane should be provided frequently and should be clearly indicated. Additional pinch points, where the right-of-way and available space for roadway re-allocation is minimal, would need to be thoughtfully designed so as to maintain as much protection as possible for cyclists. Likewise, service gates that are used to access the tracks must be considered along the bike lane and not obstruct the bike lane when open. Removal of any trees within the landscape median to accommodate the protected bike lane, will require a 2-to-1 tree replacement.

Exposition Blvd

Typical Intersection



- Recommended during a stakeholder meeting
- Recommended during the community pop-up
- Element in the top 3 of those supported in the online survey

Exposition Blvd Comfort Liftifficial minimum Exposition Bluto **Block-by-block** New Street Trees* (30' on center) CRENSHAW BLVD Pedestrian Scaled Lighting* SOMERSET DR (60' on center) Access EVIRGINA RD **Enhanced Crosswalks** Rectangular Rapid Flashing Beacon & Reflective Raised Pavement Markers Wayfinding Corner Curb Extensions with Directional Curb Ramps Mobility 0 Bike Friendly Intersection (e.g. Bike boxes, conflict striping, bike signage, etc) Bike Signal 8-80 Protected Bike Lane (Class IV) Bike Lane (Class II) Greenway (Class III) Sharrow (Class III) *Street trees and pedestrian scaled lighting shown for illustrative purposes only. Actual street tree and pedestrian scaled lighting locations and counts vary by block and available space.



Exposition Blvd

How much will this cost?

Pedestrian Projects

Street trees (in parkway)	\$64,000
Street trees (in tree well)	\$37,000
Pedestrian lighting	\$554,400
Bulb-outs with directional curb ramps	\$416,000
Enhanced crosswalks	\$51,800
Wayfinding	\$6,300
Misc/contingency/construction/soft costs	\$1,520,000
Total (rounded)	\$2,650,000

Wheels Projects

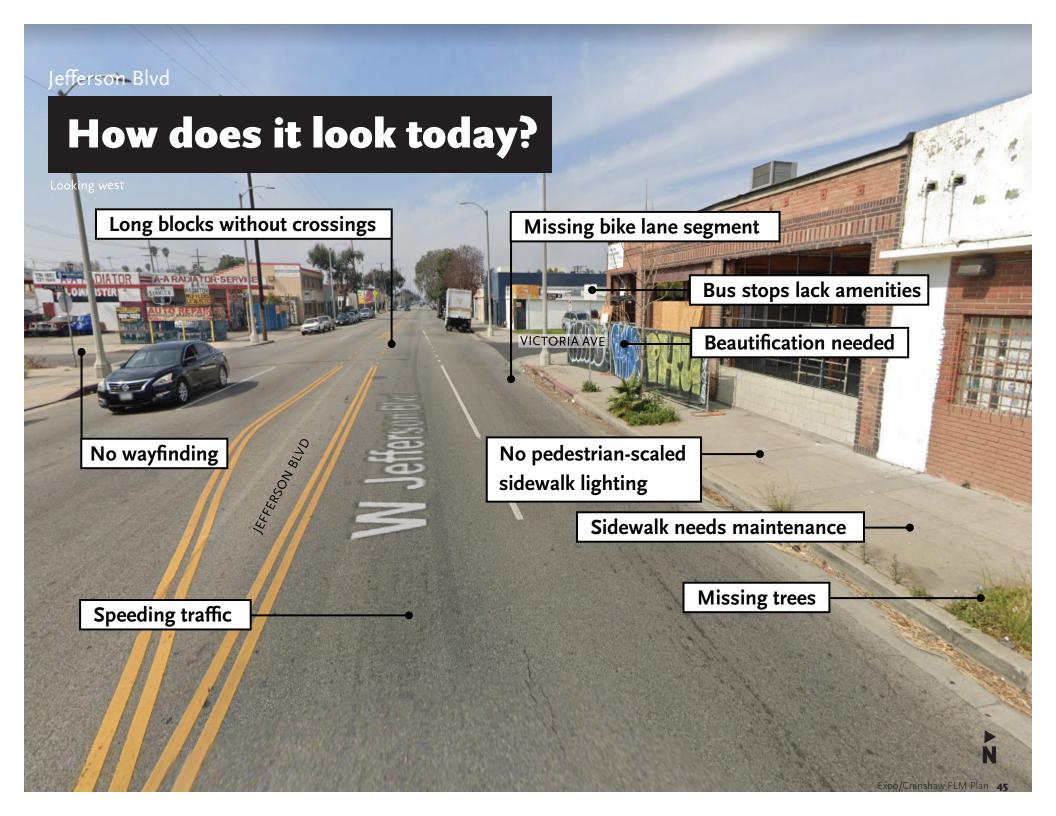
Bike signals	\$800,000
Bike friendly intersections	\$90,000
8-80 Protected bike lane (Class IV)	\$1,050,000
Left turns onto Exposition	\$360,000
Rectangular rapid flashing beacons	\$1,600,000
Misc/contingency/construction/soft costs	\$5,232,000
Total (rounded)	\$9,132,000

Other items recommended by the community, which were not integrated into the design plans:

The community also recommended new/improved sidewalks, street furniture, and bus stop enhancements on this street. The existing sidewalks are high-quality and the width of the sidewalk cannot be extended while also accommodating a protected bike lane. Street furniture is not recommended due to the residential and industrial character of the street. Finally, Exposition Blvd does not have an existing bus route to warrant bus stop enhancements.

and bus corridor, north of the station. First/Last Mile recommendations include pedestrian improvements, amenities for bus riders, and a new bike lane, which aligns with proposals in the City of LA's *Mobility Plan 2035*. The new bike lane would connect to the existing bike lane on Jefferson Blvd, west of Harcourt Ave. Jefferson should feel more welcoming for people walking as well. Adding corner curb extensions, new crosswalks to shorten blocks, trees, and pedestrian lighting will help people feel comfortable and safe.

Jefferson Blvd



What's needed the most?

Top 3 Requested Improvements







Crosswalks



Pedestrian Lighting

**

Other Items that Need Attention

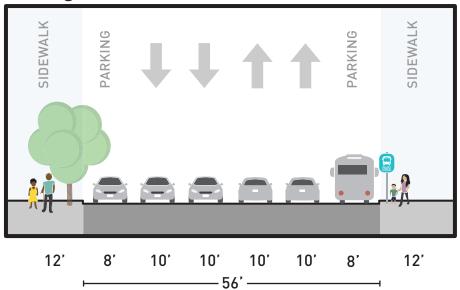
Speeding traffic, discontinuous bike lane, beautification needed, bus stops without much-needed amenities, dark at night, no wayfinding, sidewalks are unimproved.

^{*} From the online survey

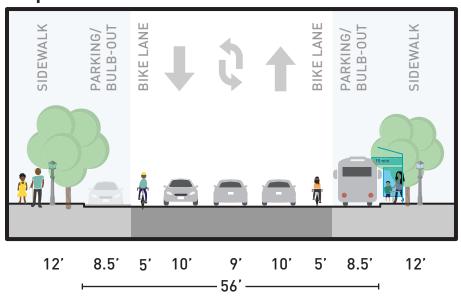
Jefferson Blvd

Roadway Changes

Existing Street



Proposed Street



Summary

Remove one travel lane in each direction

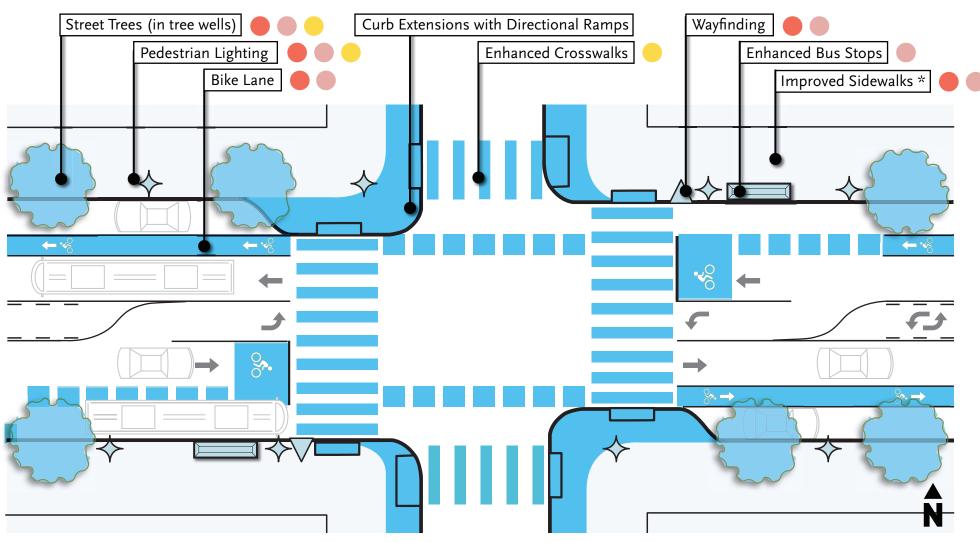
Introduce center turn lane

Retain parking

Add corner curb extensions

Add bike lane

Typical Intersection



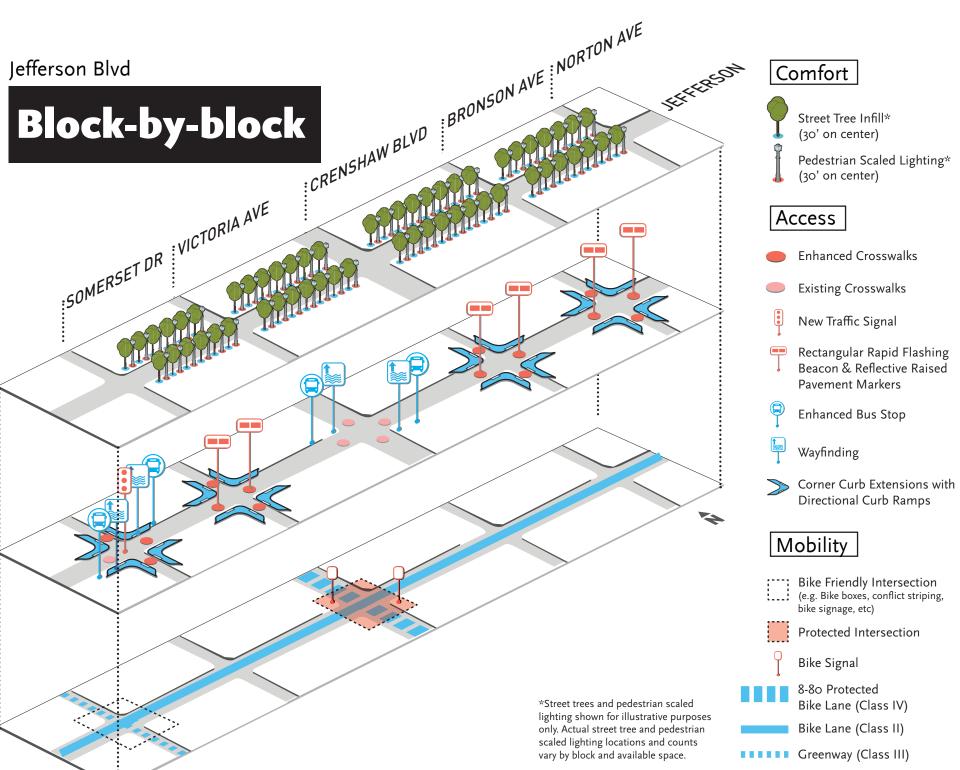
Recommended during a stakeholder meeting

Recommended during the community pop-up

Element in the top 3 of those supported in the online survey

* Further study needed to identify specific spot locations for sidewalk improvements.

Not included in cost estimate.



Pedestrian Projects

Street trees (in parkway)	\$32,000
Street trees (in tree well)	\$74,000
Pedestrian lighting	\$592,200
Bulb-outs with directional curb ramps	\$512,000
Enhanced crosswalks	\$44,400
Enhanced bus stops	\$112,000
Wayfinding	\$8,400
Signal modifications	\$315,000
Rectangular rapid flashing beacons	\$300,000
Misc/contingency/construction/soft costs	\$2,673,000
Total (rounded)	\$4,663,000

Wheels Projects

Total (rounded)	\$2,193,000
Misc/contingency/construction/soft costs	\$1,258,000
Protected intersection	\$500,000
Bike lane (Class II)	\$315,000
Bike friendly intersections	\$120,000

Other items recommended by the community, which were not integrated into the design plans:

Traffic calming, which was recommended during stakeholder meetings. While specific measures such as speed humps are not appropriate on major vehicular thoroughfares such as Jefferson Blvd (and thus not recommended), other recommended improvements such as curb extensions and a lane reduction will likely have a traffic calming effect.

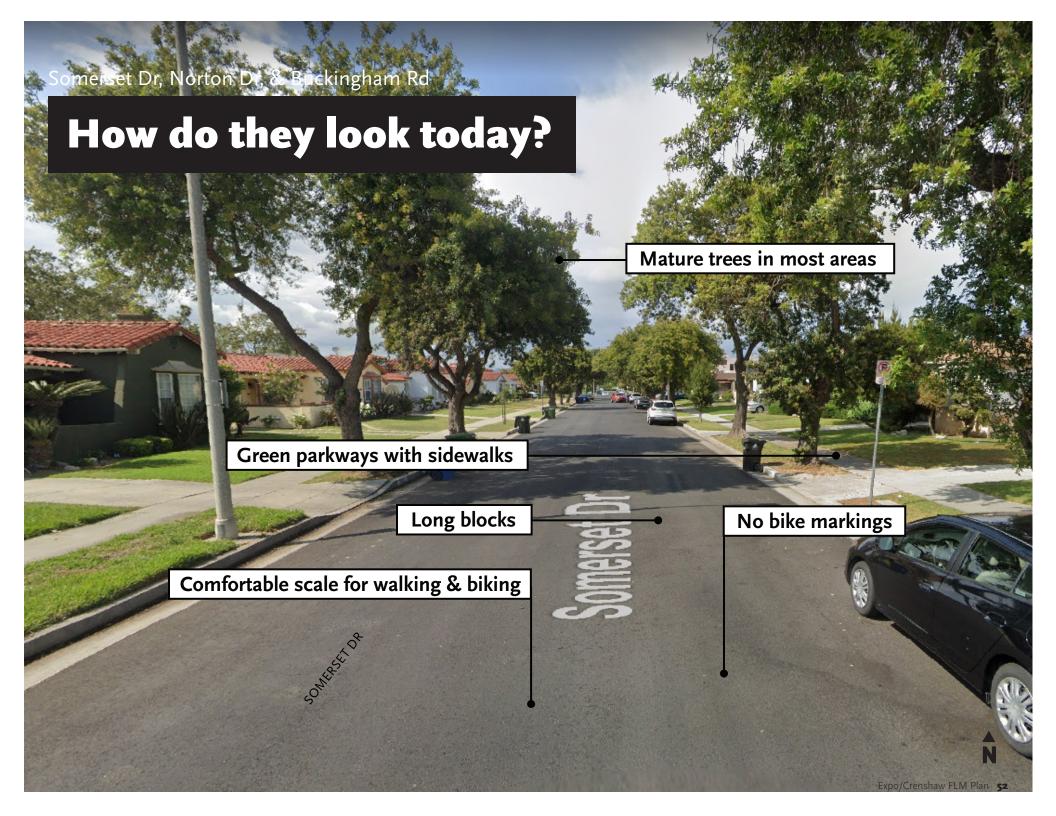
Somerset Dr is a residential street that runs parallel to Crenshaw Blvd. Currently, vehicles often use it as a cut through, but if the street was transformed into a safe and calm "Neighborhood Greenway" it would be great for walking and biking in a pleasant "low-stress" environment.

Norton Ave also runs parallel to Crenshaw Blvd and provides the most direct connection to the Metro station coming from the southeast on a bike. This street would also benefit from Greenway improvements to make it easier to bike and walk to and from the station.

Buckingham Rd facilitates north/south movement through the study area with existing traffic signals at major intersections, including a crossing at Exposition Blvd over the Expo Line tracks. Greenway improvements and traffic calming on Buckingham Rd would enhance the experience for people rolling to the station.



Somerset Dr, Norton Dr, & Buckingham Rd

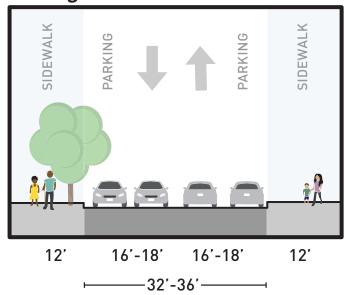


Somerset Dr, Norton Dr, & Buckingham Rd

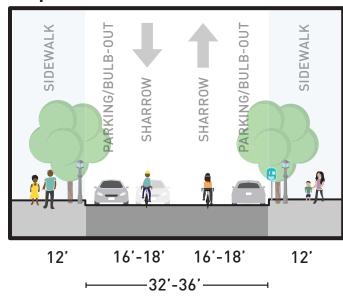
Roadway Changes

Somerset, Norton, & Buckingham* have similar character width and would generally benefit from the same suite of improvements, which is why they are grouped together in this Plan. These streets could be transformed into comfortable and desirable alternatives to Crenshaw Blvd for people walking and biking to and from the station via transformation into Neighborhood Greenways.

Existing Street



Proposed Street

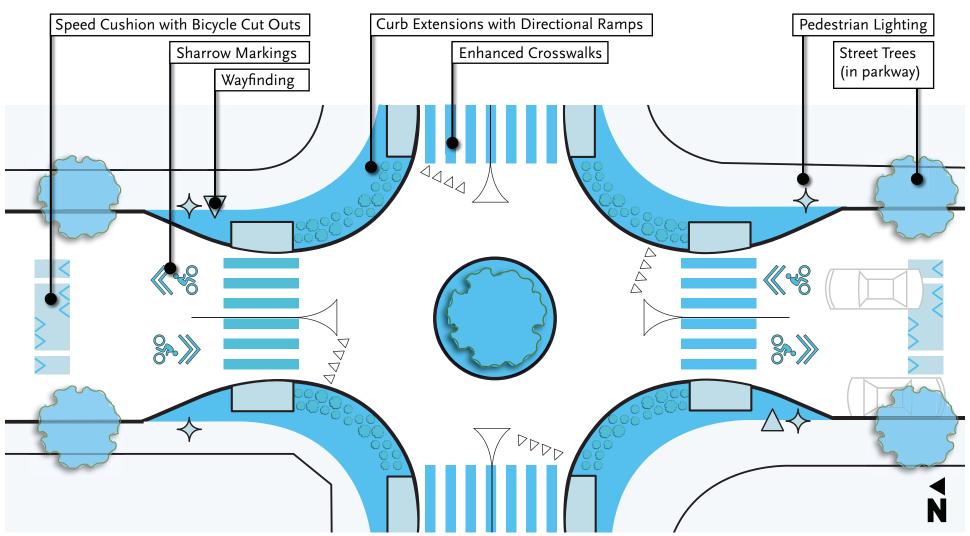


Summary

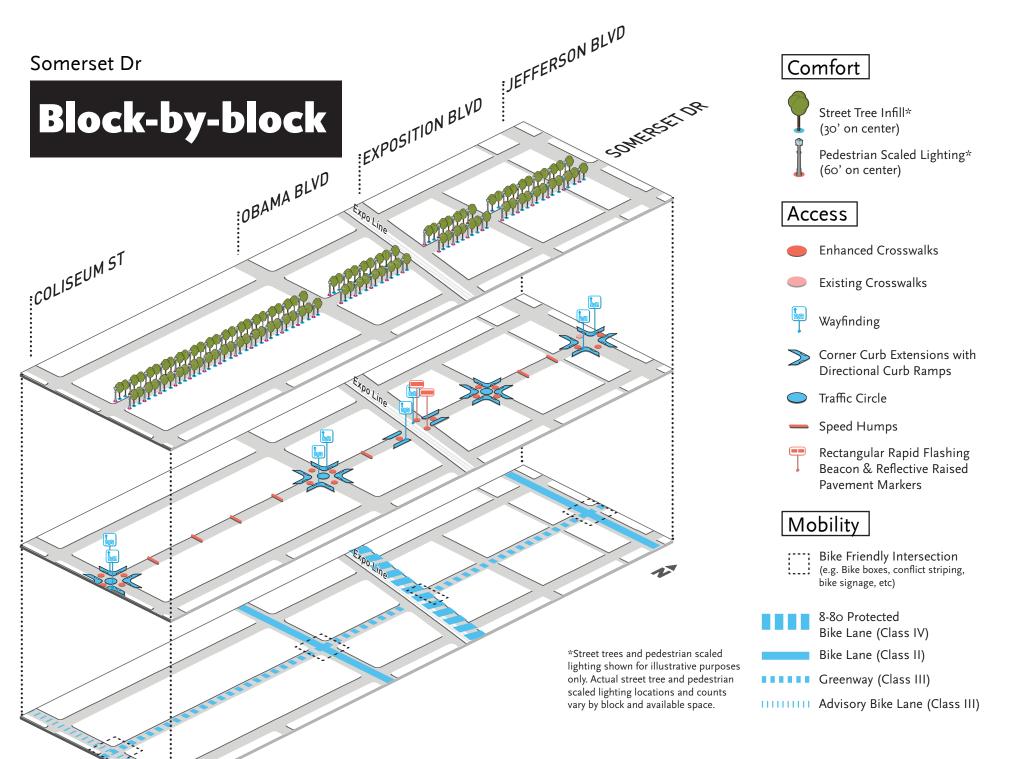
No change to street right-of-way, lanes, or parking Add in sharrow markings and Neighborhood Greenway improvements Traffic calming through corner curb extensions and speed cushions Traffic circles are recommended along Somerset Dr and Buckingham Rd * Buckingham Rd width increases to 40' north of Exposition Blvd. The same suite of improvements still apply, with special emphasis on traffic calming.

Somerset Dr, Norton Dr, & Buckingham Rd

Typical Intersection



^{*} Note: Norton was identified by the community as a candidate for Greenway improvements. Somerset and Buckingham were not specifically identified as such, however, community members discussed the need for a north-south bicycle / Greenway connection, that could be used as a safe, slower alternative to Crenshaw Blvd. Based on this feedback, Somerset and Buckingham were identified as viable options for pedestrians and cyclists, based on their location, character, and current daily vehicular traffic. Victoria was not chosen, because of its proximity to Crenshaw (it would duplicate north/south bike movement). In addition, the character of part of the east side of Victoria is 'back of house' commercial, which is less appropriate for a Greenway.



Somerset Dr

Pedestrian Projects

Street trees (in parkway)	\$134,400
Pedestrian lighting	\$522,900
Bulb-outs with directional curb ramps	\$640,000
Enhanced crosswalks	\$39,220
Wayfinding	\$16,800
Signal modifications	\$315,000
Speed cushions	\$29,600
Misc/contingency/construction/soft costs	\$2,281,000
Total (rounded)	\$3,979,000

Wheels Projects

Bike signals	\$25,000
Bike friendly intersections	\$150,000
Neighborhood Greenway (Class III)	\$115,000
All pedestrian projects (above), and traffic circles for full 1 mile*	\$5,296,160
Misc/contingency/construction/soft costs	\$7,498,000
Total (rounded)	\$13,085,000

Somerset Dr was not a focus of conversations during stakeholder meetings and was not explicitly discussed in the pop-up or online survey. **Somerset Dr was added by the** design team as a key corridor, because of the communitystated desire for a north-south alternative to Crenshaw Blvd, for walking and biking.

Somerset links to the Metro station via Exposition Blvd - either along the proposed two-way protected bike facility on the north side of the Expo Line tracks, or along the south side of the tracks.

*Because Somerset Dr is identified as a Neighborhood Greenway, pedestrian improvements should accompany any wheel improvements that are constructed. For this costing breakdown, all pedestrian improvements (extended to the bicycle 1-mile radius) are accounted for in the Wheels Projects costing.

Norton Dr

Pedestrian Projects

Street trees (in parkway)	\$76,800
Pedestrian lighting	\$403,200
Bulb-outs with directional curb ramps	\$96,000
Enhanced crosswalks	\$14,800
Wayfinding	\$10,500
Rectangular rapid flashing beacons	\$100,000
Speed cushions	\$14,800
Misc/contingency/construction/soft costs	\$965,000
Total (rounded)	\$1,682,000

Wheels Projects

Bike friendly intersections	\$90,000
Neighborhood Greenway (Class III)	\$60,800
All pedestrian projects (above) for full 1 mile*	\$2,720,820
Misc/contingency/construction/soft costs	\$3,856,000
Total (rounded)	\$6,728,000

The City of LA's Crenshaw Blvd Streetscape Plan has identified **Degnan Blvd as a proposed** bike lane and this First/Last Mile plan adds Norton Ave as a Neighborhood Greenway for First/Last Mile access. It was selected as a key pathway due its proximity to the station, its residential and friendly character, and because it provides a more direct connection to the Expo/ Crenshaw station compared to Degnan, for people traveling from the southeast neighborhoods. Norton Ave also connects to the existing bike lane on Degnan Blvd south of MLK Blvd.

*Because Norton Dr is identified as a Neighborhood Greenway, pedestrian improvements should accompany any wheel improvements that are constructed. For this costing breakdown, all pedestrian improvements (extended to the bicycle 1-mile radius) are accounted for in the Wheels Projects costing.

Buckingham Rd

Pedestrian & Wheels Projects

Street trees (in parkway)	\$432,000
Street trees (in tree well)	\$251,600
Pedestrian lighting	\$3,496,500
Bulb-outs with directional curb ramps	\$1,760,00
Enhanced crosswalks	\$176,120
Wayfinding	\$50,400
Signal modifications	\$315,000
Speed cushions	\$103,600
Traffic circle	\$157,500
Bike signals	\$675,000
Bike friendly intersections	\$60,000
Bike lane (Class II)	\$15,000
Neighborhood Greenway (Class III)	\$131,200
Misc/contingency/construction/soft costs	\$9,804,000
Total (rounded)	\$17,113,000

Buckingham Rd was not a focus of conversations during stakeholder meetings and was not explicitly discussed in the pop-up or online survey. **Buckingham Rd was added** by the design team as a key corridor, because of the community-stated desire for a north-south bike connections.

Buckingham Rd links to the Metro station via Exposition Blvd - either along the proposed two-way protected bike facility on the north side of the Expo Line tracks, or along the south side of the tracks.

*Because Buckingham Rd is identified as a Neighborhood Greenway, pedestrian improvements should accompany any wheel improvements that are constructed. Buckingham Rd runs outside of the 1/4 mile radius. For this costing breakdown, all pedestrian and wheels improvements (extended to the bicycle 1-mile radius) are accounted for.

Coliseum St is an east-west residential corridor just beyond the ¼-mile,* south of the Metro station. Coliseum is identified as a Bike Blvd (Class III) in the City of LA's Mobility Plan and would connect to the existing bike lane west of MLK Blvd. The First/Last Mile recommendation in this Plan is to upgrade this street to an "Advisory Bike Lane" in both directions and add pedestrian improvements. Since an Advisory Bike Lane is currently an FHWA Experimental Facility, two other design options are included, in case the preferred option is not feasible.

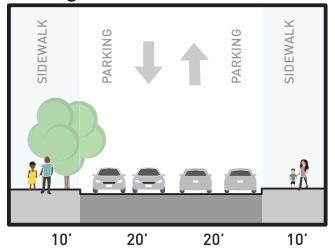
* Although Coliseum St is just outside the 1/4 mile radius from the station, it is included in detail here, because it was brought up many times in community conversations and represents a key street for station access.

Coliseum St



Roadway Changes

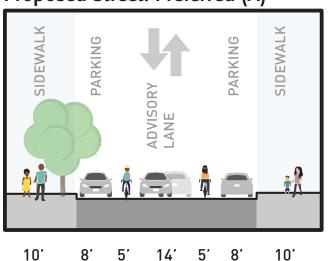
Existing Street



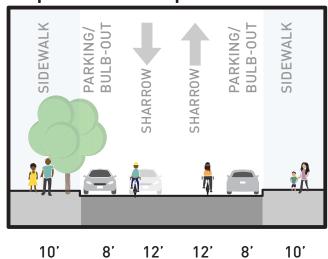
Summary

Preferred Concept A: Add Advisory Lane and introduce a shared travel lane Option B: Introduce corner curb extensions and sharrow markings Option C: Replace parking with a buffered bike lane along the curb Retain all parking in Options A and B

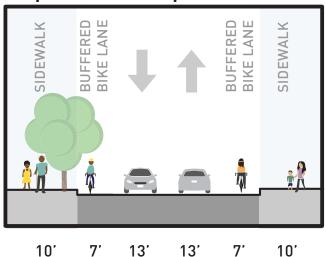
Proposed Street: Preferred (A)



Proposed Street: Option B

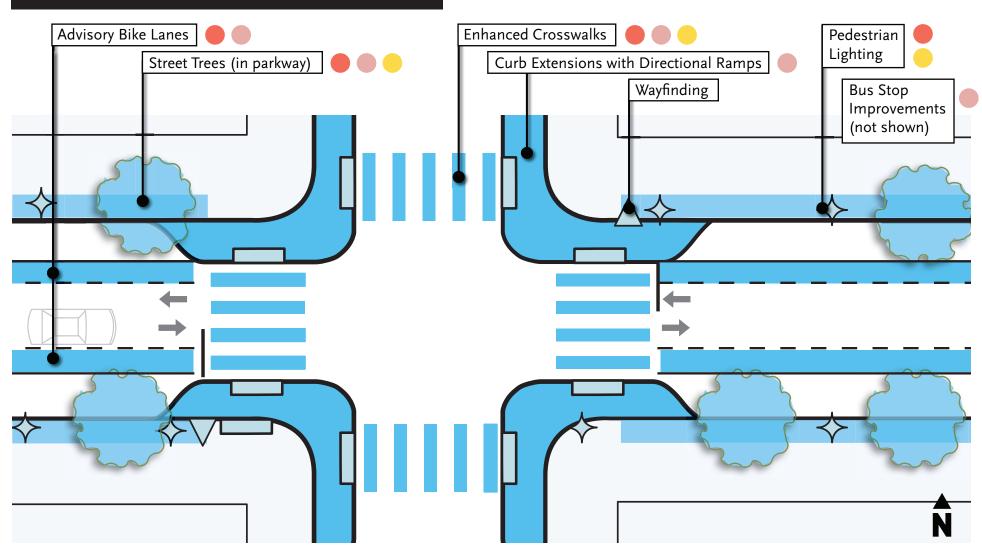


Proposed Street: Option C



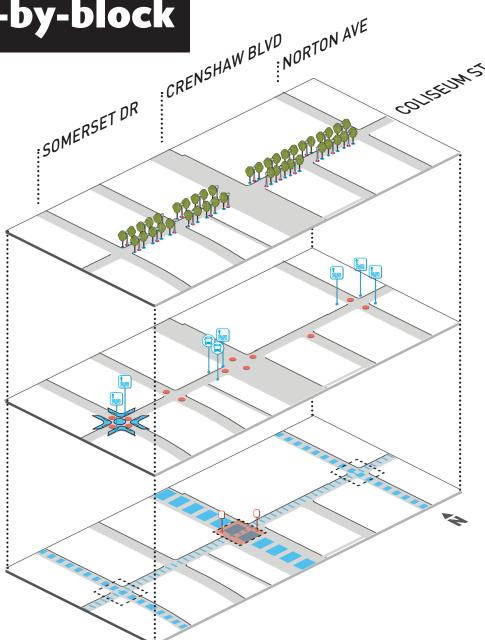
Typical Intersection

(Preferred Concept: Advisory Bike Lanes)



- Recommended during a stakeholder meeting
- Recommended during the community pop-up
- Element in the top 3 of those supported in the online survey

Block-by-block



Comfort

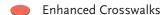


Street Tree Infill* (30' on center)



Pedestrian Scaled Lighting* (60' on center)

Access





Enhanced Bus Stop



Wayfinding



Traffic Circle

Mobility

Bike Friendly Intersection (e.g. Bike boxes, conflict striping, bike signage, etc)



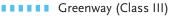
Protected Intersection

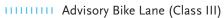


Bike Signal



8-80 Protected Bike Lane (Class IV)





*Street trees and pedestrian scaled lighting shown for illustrative purposes only. Actual street tree and pedestrian scaled lighting locations and counts vary by block and available space.

How much will this cost?

Pedestrian Projects

Street trees (in parkway)	\$38,400
Street trees (in tree well)	\$114,700
Pedestrian lighting	\$478,800
Bulb-outs with directional curb ramps	\$128,000
Enhanced crosswalks	\$55,870
Enhanced bus stops	\$56,000
Wayfinding	\$12,600
Misc/contingency/construction/soft costs	\$1,192,000
Total (rounded)	\$2,077,000

Wheels Projects

Bike signals	\$50,000
Bike friendly intersections	\$150,000
Advisory bike lane (Class III experimental facility)*	\$158,400
Misc/contingency/construction/soft costs	\$484,000
Total (rounded)	\$843,000

*Consult existing best practices and literature on Advisory Bike Lanes. Resources such as "FHWA Guidance - Dashed Bicycle Lanes" along with the website www.advisorybikelanes.com may be helpful. Special experimental approval is required, which requires time and attention from City staff.

Other items recommended by the community, which were not integrated into the design plans:

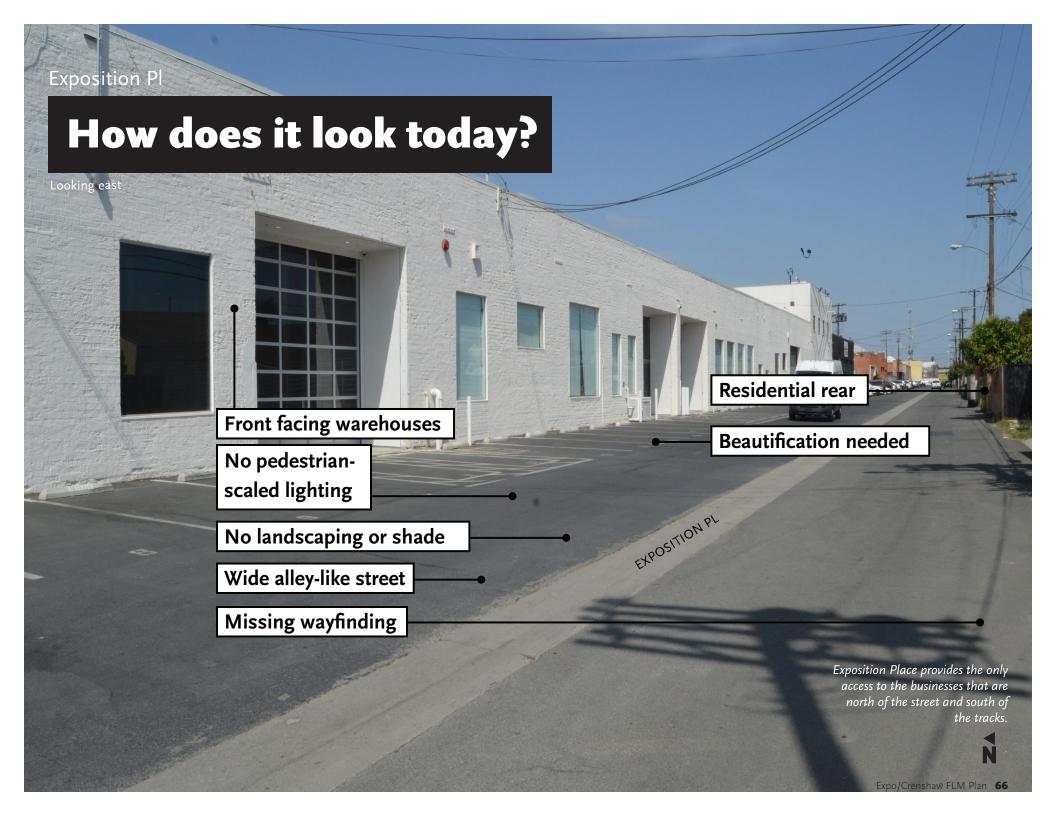
Traffic calming, which was recommended during stakeholder meetings, will likely result from the redesign of travel lanes, however specific measures such as speed humps have not been included. Street furniture was also recommended by the community, however is not recommended due to the residential character of the existing street.

The preferred concept for Coliseum St includes an **Advisory Bike Lane, which** is currently an FHWA **Experimental Facility.***

that separates commercial from residential areas. This Plan recommends that Exposition Pl is transformed into a "Shared Street" offering an alternative, "low-stress" route for people walking and biking. Green spaces can be introduced along the corridor, by converting a few parking spaces into mini-parks and planted areas.

Walk, bike, and drive areas are all at the same grade and can have permeable paving.

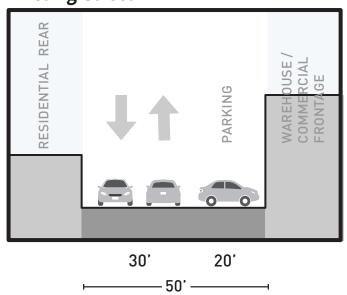
Exposition Pl



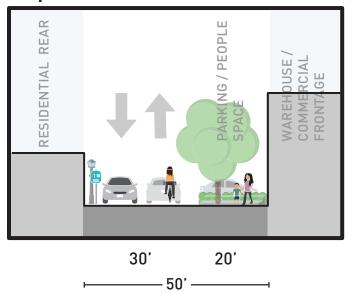
Exposition Pl

Roadway Changes

Existing Street



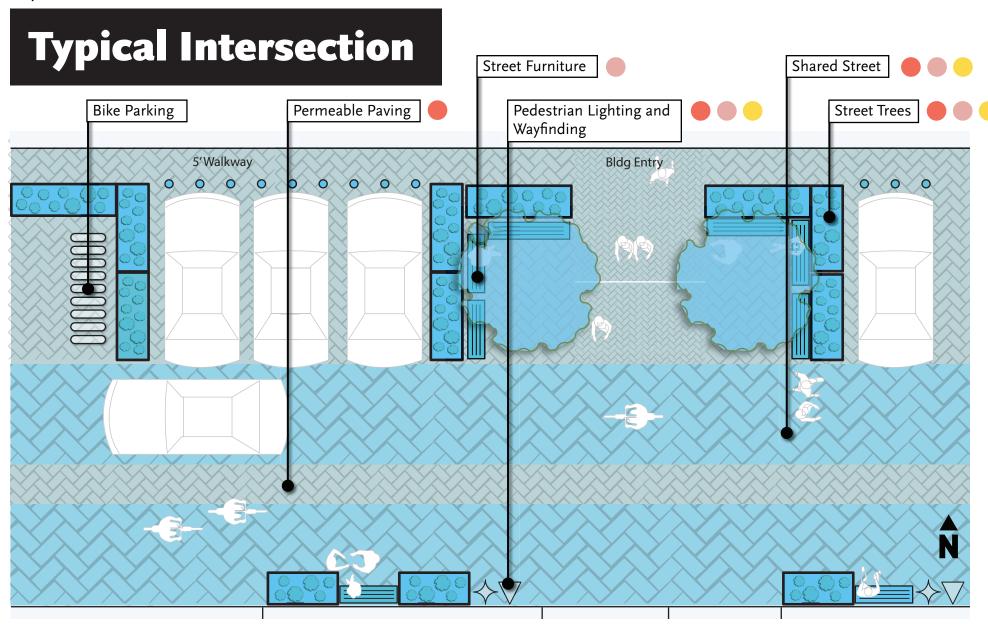
Proposed Street



Summary

No change to street right-of-way width Integrate permeable paving in the full right-of-way Convert a few of the parking spaces to people paces (e.g. mini parks, bike parking corrals, seating, landscaping, etc.)

Exposition Pl



- Recommended during a stakeholder meeting
- Recommended during the community pop-up
- Element in the top 3 of those supported in the online survey



Exposition Pl

How much will this cost?

Pedestrian Projects

Street trees (in tree well)	\$74,000
Pedestrian lighting	\$264,600
Wayfinding	\$4,200
Parking/people spaces	\$1,488,000
Movement space	\$1,488,000
Street furniture clusters	\$300,000
Misc/contingency/construction/soft costs	\$4,857,000
Total (rounded)	\$8,476,000

Other items recommended by the community, which were not integrated into the design plans:

Traffic calming, which was recommended during stakeholder meetings. The reconfiguration of the street into a "Shared Street" will help to calm traffic.

Wheels Projects

Total (rounded)	\$124,000
Misc/contingency/construction/soft costs	\$74,000
Bike parking (arranged in 5 clusters)	\$30,000
Neighborhood Greenway (Class III)	\$19,840

Project

Prioritization

The scoring system to prioritize projects takes into consideration how well each project improves safety, comfort, community input, & connectivity.

How it Shakes Out

Each project was scored out of 100 possible points for Pedestrian Projects and 100 possible points for Wheels Projects. To ensure a consistent prioritization method across all of Metro's first/last mile plans and projects, the scoring criteria followed Metro's First/ Last Mile Prioritization Framework, and referenced the recent East San Fernando Valley Transit Corridor Prioritization Methodology. The Framework is designed with clear categories: Safety, Comfort, Community input, and Connectivity, and within these categories the framework can be tweaked and refined based on the parameters of the particular Plan. The weighting criteria selected for this Plan is shown on the following page and then the Prioritized Project Lists are contained on pages 73 and 74.

If the project contains the elements listed in each category or satisfies the criteria, then that project receives the corresponding points. The projects with the most points rise to the top as "prioritized."

Community input weighs up to 25% for pedestrian and wheels project prioritization scores.

Pedestrian Projects Total Possible Points:	100
Safety	35
New or Improved Crosswalks	6
Pedestrian Lighting	6
Curb Extensions	6
ADA Access Ramps	6
Traffic Calming	6
Pedestrian/Vehicle Collisions (SWITRS, 2013-2017) > 10 collisions	5
Comfort	25
Landscaping & Shade	10
Bus Stop Enhancements	7
Street Furniture	4
Wayfinding	4
Community Input	25
Weighted Formula (Total # of votes/Highest # of votes x 25)	25
Connectivity	15
Located on Pathway Arterial	ر. 15

Wheels Projects Total Possible Points:	100
Safety & Comfort	60
Bicycle/Vehicle Collisions (SWITRS, 2013-2017) > 10 collisions	5
NACTO Guidelines 8 to 80 Facility (vertical buffer / protected) 25 pts Greenway	25
Controlled Crossings Yes	10
Connection to the Station Directly to the station	10
Connected the Existing Network Yes	10
Community Input	25
Weighted Formula (Total # of votes/Highest # of votes x 25)	25
Connectivity	15
On Pathway Arterial or on a parallel street that is within 1/4 mi of that Arterial	10
Project connects station (within 500 ft) to regional destination	5

Pedestrian Priorities

For Pedestrian Projects, the three top ranked streets are **Crenshaw Blvd, Exposition** Blvd, and Jefferson Blvd.



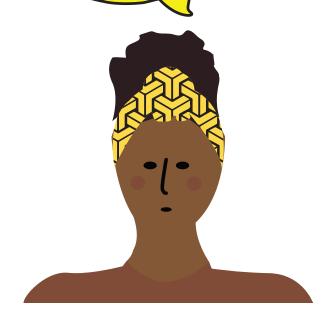
Name	Түре	Safety Score (35 r	Comfort Score (2	Community Inpu	Connectivity Sco	Total Pedestrian !
Crenshaw Blvd	Arterial	23	25	25	15	88.0
Exposition Blvd	Arterial	25	14	13	15	67.5
Jefferson Blvd	Collector	29	21	13	0	62.9
Coliseum St	Collector	33	21	6	0	60.5
Obama Blvd	Collector	27	14	15	0	55-5
Somerset Dr	Collector	31	14	0	0	45.0
Norton Ave	Collector	25	14	0	0	39-5
Exposition Pl	Collector	7	14	4	0	24.5
Alley Improvements (E of Crenshaw)	Cut-Through	7	4	0	0	11.0

ut Score (25 max)

Score (100 max)

Wheels Priorities

For Wheels Projects, the three top ranked streets are **Crenshaw Blvd, Exposition** Blvd, and Obama Blvd.



		Safety & Com	Community Ir	Connectivity S	Total Wheels \$
Name	Түре	Sa	ŏ	ŭ	<u>6</u>
Crenshaw Blvd	Arterial	60	25	15	100.0
Exposition Blvd	Arterial	58	12	15	85.0
Obama Blvd	Collector	41	18	15	73.7
Jefferson Blvd	Collector	40	12	10	62
Somerset Dr	Collector	46	0	10	56.0
Norton Ave	Collector	41	1	10	52.0
Exposition Pl	Collector	31	4	10	44.6
Coliseum St	Collector	38	6	0	43.7
Alley Improvements (E of Crenshaw)	Cut-Through	N/A	N/A	N/A	N/A

ifort Score (60 max)

nput Score (25 max)

Score (15 max)

Score (100 max)

This Plan lays out a vision for the future - a vision which needs to be actively pursued by multiple parties to make it a reality.

Looking to the Future

The content in this plan is designed to be used in support of funding applications from a variety sources, such as active transportation and streetscape grants. Recommended projects are high level concepts - specific design elements are not included nor specified. Further design investigation and ongoing community conversations are critical. Likewise, it is important that ownership, installation, and maintenance responsibilities of projects and project elements are established as project design moves forward. Further coordination among the City of Los Angeles, Metro, and community stakeholders will be necessary to identify and move forward priority first/last mile projects.

Since projects are located on public streets, the City of Los Angeles should take the lead on project implementation moving forward. As conversations and ideas evolve for the projects, street surveys and advanced designs should be undertaken on select priority streets. Any project proposed to reallocate travel lanes will need to undergo further evaluation prior to final decisions to fund or implement a project. Streetscape improvements should be vetted through the City of LA's Street Working Group Committee in order to receive and address additional feedback. Final approval will be needed from other City departments represented in the committee. In addition, designs for the Advisory Bike Lane would need to be presented to LADOT's Complete Streets Committee. Best practices relating to the elements proposed, along with existing City guidance and procedures should be followed, for example for lane reallocation projects (Roadway Reconfiguration Guidelines). Ongoing community participation should take place throughout the life of the project and should be a central part of the process.



The Toolkit

Images are illustrative only - design specification is not intended.

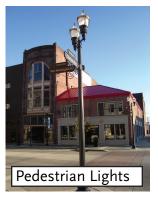








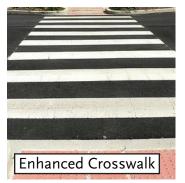
















Toolkit (Continued)





















Toolkit (Continued)





* From LA Metro's First/Last Mile Strategic Plan

Appendix B

High Level Cost Estimate & Project Cost

Project Expo Crenshaw First / Last Mile Strategic Plan

Los Angeles Metro Agency

Client Here LA

19-Jun-20 **ID No**: 23205201 Prepared by Steer Date:

Project Name Expo / Crenshaw Station

Jefferson Blvd - Ped Project DRAFT Status:

Description

Somerset Dr to S Norton Ave

Link Length LF 1,560

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	20	EA	\$1,600	\$32,000
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	20	EA	\$3,700	\$74,000
	Ped lighting 2 sides @ 30 FT OC	94	EA	\$6,300	\$592,200
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb outs with directional curb ramp	16	EA	\$32,000	\$512,000
	Enhanced crosswalks	600	LF	\$74	\$44,400
	Enhanced Bus stops	4	EA	\$28,000	\$112,000
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	4	EA	\$2,100	\$8,400
	Signal modifications	1	EA	\$315,000	\$315,000
	Rectangular Rapid Flashing Beacons	6	EA	\$50,000	\$300,000
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
	Estimated Cost Subtotal		I	I I	\$1,990,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$100,000
	Mobilization (10% of Estimated Cost Subtotal)				\$199,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$199,000
	Contingencies (35% of Estimated Cost Subtotal)				\$697,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$3,185,000
	Planning (2% of Estimated Construction Cost Total)				\$64,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$160,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$255,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$287,000
	CM (5% of Estimated Construction Cost Total)				\$160,000
	Legal, Permits, 3rd Parties etc. (4%)				\$128,000
	SOFT COSTS TOTAL				\$1,054,000
	Unallocated Contingecy (10%)				\$424,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$424,000
	TOTAL ESTIMATED PROJECT COST:				\$4,663,000
	TOTAL ESTIMATED PROJECT COST:				\$4,003,000

	High Level Cost Estimate & Project Cost			
Project	Expo Crenshaw First / Last Mile Strategic Plan			
Agency	Los Angeles Metro			
Client	Here LA			
Prepared by	Steer	Date:	19-Jun-20 ID No :	23205201
	Expo / Crenshaw Station Jefferson Blvd - Wheel Project	Status:	DRAFT	
Description				
	S. Rimpau Bld junction to Arlington Ave.			
		Link Length	LE 10 500	

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
11 - 111	Bicyle Signal	0	EA	\$25,000	\$0
	Bicyle Friendly Intersections	4	EA	\$30,000	\$120,000
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	Bike Lane (Class II) inc markings, signs	21000	LF	\$15	\$315,000
	Greenway with Sharrows (Class III) inc markings, signs	0	LF	\$16	\$0
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0
	Protected Intersection	1	EA	\$500,000	\$500,000
	Estimated Cost Subtotal				\$935,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$47,000
	Mobilization (10% of Estimated Cost Subtotal)				\$94,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$94,000
	Contingencies (35% of Estimated Cost Subtotal)				\$328,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$1,498,000
	Planning (2% of Estimated Construction Cost Total)				\$30,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$75,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$120,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$135,000
	CM (5% of Estimated Construction Cost Total)				\$75,000
	Legal, Permits, 3rd Parties etc. (4%)				\$60,000
	SOFT COSTS TOTAL				\$495,000
	Unallocated Contingecy (10%)				\$200,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$200,000
					•
	TOTAL ESTIMATED PROJECT COST:				\$2,193,000

Project Expo Crenshaw First / Last Mile Strategic Plan

Los Angeles Metro Agency

Client Here LA

Date: 19-Jun-20 **ID No**: 23205201 Steer Prepared by

Expo / Crenshaw Station
Obama Blvd - Ped Project DRAFT Project Name Status:

Description

Virginia Rd to Edgehill Dr

Link Length LF 2600

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL	
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	70	EA	\$1,600	\$112,0	
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	36	EA	\$3,700	\$133,2	
	Ped lighting 2 sides @ 75 FT OC	78	EA	\$6,300	\$491,4	
	Sidewalk pavng enhancements	0	SF	\$21		
	Bulb outs with directional curb ramp	21	EA	\$32,000	\$672,0	
	Enhanced crosswalks	1120	LF	\$74	\$82,8	
	Enhanced Bus stop	0	EA	\$28,000		
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000		
	Wayfinding - fingerposts	7	EA	\$2,100	\$14,7	
	Signal modifications	0	EA	\$315,000		
	Rectangular Rapid Flashing Beacons	8	EA	\$50,000	\$400,0	
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700		
	Traffic Circle	0	EA	\$31,500		
	Fetimated Cost Subtotal					
	Estimated Cost Subtotal Miscellaneous Items (5% of Estimated Cost Subtotal)					
	Mobilization (10% of Estimated Cost Subtotal)				\$96, \$191,	
					\$191, \$191,	
	Utility Allowance (10% of Estimated Cost Subtotal)					
	Contingencies (35% of Estimated Cost Subtotal) ESTIMATED CONSTRUCTION COST TOTAL					
					\$3,053,	
	Planning (2% of Estimated Construction Cost Total)				\$62,	
	Preliminary Engineering (5% of Estimated Construction Cost Total				\$153,	
	Final Design Services (8% of Estimated Construction Cost Total)	-			\$245,	
	PM for Design & Construction (9% of Estimated Construction Cost	I otal)			\$275,	
	CM (5% of Estimated Construction Cost Total)				\$153,	
	Legal, Permits, 3rd Parties etc. (4%)				\$123,	
	SOFT COSTS TOTAL				\$1,011,	
	Unallocated Contingecy (10%)				\$407,	
	UNALLOCATED CONTINGENCY COST TOTAL				\$407	

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
	Expo / Crenshaw Station Obama Blvd - Wheel Project	Status:	DRAFT		
Description	- Calling Control of C				
	Martin Luther King to Arlington Ave				
		Link Length	LF 10800		

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL			
	Bicyle Signals	2	EA	\$25,000	\$50,000			
	Bicyle Friendly Intersections	5	EA	\$30,000	\$150,000			
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$0			
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0			
	Bike Lane (Class II) inc markings, signs	21600	LF	\$15	\$324,000			
	Greenway with Sharrows (Class III) inc markings, signs	0	LF	\$16	\$0			
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0			
	Protected Intersection	0	EA	\$500.000	\$0			
	Estimated Cost Subtotal				\$524,000			
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$27,000			
	Mobilization (10% of Estimated Cost Subtotal)				\$53,000			
	Utility Allowance (10% of Estimated Cost Subtotal)				\$53,000 \$53,000			
	Contingencies (35% of Estimated Cost Subtotal)				\$184,000			
	ESTIMATED CONSTRUCTION COST TOTAL				\$841,000			
	Planning (2% of Estimated Construction Cost Total)				\$17,000			
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$43,000			
	Final Design Services (8% of Estimated Construction Cost Total)				\$68,000			
	PM for Design & Construction (9% of Estimated Construction Cost Tot	al)			\$76,000			
	CM (5% of Estimated Construction Cost Total)				\$43,000 \$34,000			
	Legal, Permits, 3rd Parties etc. (4%)							
	SOFT COSTS TOTAL				\$281,000 \$113,000			
	Unallocated Contingecy (10%)							
	UNALLOCATED CONTINGENCY COST TOTAL							
	UNALLOCATED CONTINGENCY COST TOTAL	TOTAL ESTIMATED PROJECT COST: \$						

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Client Here LA

19-Jun-20 **ID No**: 23205201 Prepared by Steer Date:

Expo / Crenshaw Station
Exposition Blvd - Ped Project DRAFT Project Name Status:

Description

Virginia Rd to 11th Ave

Link Length LF 3,000

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	40	EA	\$1,600	\$64,000
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	10	EA	\$3,700	\$37,000
	Ped lighting 2 sides @ 75 FT OC	88	EA	\$6,300	\$554,400
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb outs with directional curb ramp	13	EA	\$32,000	\$416,000
	Enhanced crosswalks	700	LF	\$74	\$51,800
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	3	EA	\$2,100	\$6,300
	Signal modifications	0	EA	\$315,000	\$0
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
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	Estimated Cost Subtotal				\$1,130,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$57,000
	Mobilization (10% of Estimated Cost Subtotal)				\$113,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$113,000
	Contingencies (35% of Estimated Cost Subtotal)				\$396,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$1,809,000
	Planning (2% of Estimated Construction Cost Total)				\$37,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$91,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$145,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$163,000
	CM (5% of Estimated Construction Cost Total)				\$91,000
	Legal, Permits, 3rd Parties etc. (4%)				\$73,000
	SOFT COSTS TOTAL				\$600,000
	Unallocated Contingecy (10%)				\$241,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$241,000
	TOTAL ESTIMATED PROJECT COST:				<u>\$2,650,000</u>

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
Project Name	Expo / Crenshaw Station Exposition Blvd - Wheel Project	Status:	DRAFT		
Description					
	Harcourt Ave to Arlington Ave				

Link Length LF 10,500

\$831,000 \$831,000 **\$9,132,000**

ITEM	DESCRIPTION	OHANTITY	LIMITO	LINIT DDICE	TOTAL
ITEM	DESCRIPTION Bicyle Signals	QUANTITY 32	UNITS EA	UNIT PRICE	**************************************
	Bicyle Friendly Intersections	3	EA	\$25,000 \$30,000	\$90,000
	8-80 Facility (Class IV Protected Bike Facility)	0	LF.	\$30,000	\$90,000
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	10500	LF	\$100	\$1,050,000
	Bike Lane (Class II) inc markings, signs	0	LF LF	\$15	\$1,050,000
	Greenway with Sharrows (Class III) inc markings, signs	0	LF	\$16	\$0
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0
	Left turns on Exposition	18	EA	\$20,000	\$360,000
	Rectangular Rapid Flashing Beacons*	32	EA	\$50,000	\$1,600,000
	Trectangular Trapid Flashing Deacons	32	LA	\$50,000	\$1,000,000
	*RRFBs could include push buttons or bike pavement detector loops. Cost				
	includes push buttons only.				
	included past, sustains strip.				
	Estimated Cost Subtotal				\$3,900,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$195,000
	Mobilization (10% of Estimated Cost Subtotal)				\$390,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$390,000
	Contingencies (35% of Estimated Cost Subtotal)				\$1,365,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$6,240,000
	Planning (2% of Estimated Construction Cost Total)				\$125,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$125,000
	, ,				
	Final Design Services (8% of Estimated Construction Cost Total)				\$500,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$562,000
	CM (5% of Estimated Construction Cost Total)				\$312,000
	Legal, Permits, 3rd Parties etc. (4%) SOFT COSTS TOTAL				\$250,000
					\$2,061,000

Unallocated Contingecy (10%)

UNALLOCATED CONTINGENCY COST TOTAL

TOTAL ESTIMATED PROJECT COST:

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Client Here LA

Date: 19-Jun-20 **ID No**: 23205201 Prepared by Steer

Expo / Crenshaw Station
Crenshaw Blvd - Ped Project DRAFT Project Name Status:

Description

Jefferson Blvd t Coliseum St

Link Length LF 2,900

	Street Trees - in soft / existing well - 2 sides @ 30 FT OC Street Trees - in hard + planting - 2 sides @ 30 FT OC	0	EA	\$1.600	¢Λ
				41,000	\$ U
	D LELE O CL CONTTOO	110	EA	\$3,700	\$407,000
	Ped lighting 2 sides @ 30 FT OC	150	EA	\$6,300	\$945,000
	Sidewalk paving enhancements	28000	SF	\$21	\$588,000
l	Bulb out with directional curb ramp	0	EA	\$32,000	\$0
	Enhanced crosswalk	1260	LF	\$74	\$93,240
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	5	EA	\$42,000	\$210,000
	Wayfinding - fingerposts	6	EA	\$2,100	\$12,600
	Signal modifications	1	EA	\$315,000	\$315,000
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
	Green Zone - drop off zone + 4 EV charging spaces	1	EA	\$60,000	\$60,000
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	Estimated Cost Subtotal				\$2,631,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$132,000
	Mobilization (10% of Estimated Cost Subtotal)				\$264,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$264,000
	Contingencies (35% of Estimated Cost Subtotal)				\$921,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$4,212,000
	Planning (2% of Estimated Construction Cost Total)				\$85,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$211,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$337,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$380,000
	CM (5% of Estimated Construction Cost Total)				\$211,000
	Legal, Permits, 3rd Parties etc. (4%)				\$169,000
	SOFT COSTS TOTAL				\$1,393,000
	Unallocated Contingecy (10%)				\$561,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$561,000
	TOTAL ESTIMATED PROJECT COST:				\$6,166,000

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
Project Name	Expo / Crenshaw Station Crenshaw Blvd - Wheel Project	Status:	DRAFT		
Description					
	W 23rd St to Stocker St				

Link Length LF 10600

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signals	14	EA	\$25,000	\$350,000
	Bicyle Friendly Intersections	9	EA	\$30,000	\$270,000
	8-80 Facility (Class IV Protected Bike Facility)	21200	LF	\$100	\$2,120,000
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$0
	Greenway with Sharrows (Class III) inc markings, signs	0	LF	\$16	\$0
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0
	Protected Intersections	3	EA	\$500,000	\$1,500,000
				1	
				+ +	
	Estimated Cost Subtotal				\$4,240,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$212,000
	Mobilization (10% of Estimated Cost Subtotal)				\$424,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$424,000
	Contingencies (35% of Estimated Cost Subtotal)				\$1,484,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$6,784,000
	Planning (2% of Estimated Construction Cost Total)				\$136,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$340,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$543,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$611,000
	CM (5% of Estimated Construction Cost Total)				\$340,000
	Legal, Permits, 3rd Parties etc. (4%)				\$272,000
	SOFT COSTS TOTAL				\$2,242,000
	Unallocated Contingecy (10%)				\$903,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$903,00
	TOTAL ESTIMATED PROJECT COST:				\$9,929,000

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Client Here LA

19-Jun-20 **ID No**: 23205201 Prepared by Steer Date:

Expo / Crenshaw Station
Somerset Dr - Ped Project DRAFT Project Name Status:

DESCRIPTION

Description

ITEM

Somerset Drive - Jefferson Blvd to Coliseum St

Link Length LF 2,800

QUANTITY UNITS UNIT PRICE TOTAL

I I LIVI	DESCRIPTION	QUANTITI	UNITS	UNIT FINICE	IOIAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	84	EA	\$1,600	\$134,400
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	0	EA	\$3,700	\$0
	Ped lighting 2 sides @ 75 FT OC	83	EA	\$6,300	\$522,900
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb outs with directional curb ramp	20	EA	\$32,000	\$640,000
	Enhanced crosswalks	530	LF	\$74	\$39,220
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	8	EA	\$2,100	\$16,800
	Signal modification	1	EA	\$315,000	\$315,000
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushions / bumps inc signs	8	EA	\$3,700	\$29,600
	Traffic Circle	0	EA	\$31,500	\$0
	Estimated Cost Subtotal				\$1,698,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$85,000
	Mobilization (10% of Estimated Cost Subtotal)				\$170,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$170,000
	Contingencies (35% of Estimated Cost Subtotal)				\$595,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$2,718,000
	Planning (2% of Estimated Construction Cost Total)				\$55,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$136,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$218,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$245,000
	CM (5% of Estimated Construction Cost Total)				\$136,000
	Legal, Permits, 3rd Parties etc. (4%)				\$109,000
	SOFT COSTS TOTAL				\$899,000
	Unallocated Contingecy (10%)				\$362,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$362,000
	TOTAL ESTIMATED PROJECT COST:				\$3,979,000
	TOTAL ESTIMATED PROSECT COOT.				000,010,00

High Level Cost Estimate & Project Cost Expo Crenshaw First / Last Mile Strategic Plan Project Los Angeles Metro Agency Here LA Client 23205201 19-Jun-20 **ID No**: Prepared by Steer Date: Project Name Expo / Crenshaw Station
Somerset Dr - Wheel Project Status: DRAFT Description W Somerset Dr - Martin Luther King to Adams Blvd

Link Length LF 7,200

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signals	1	EA	\$25,000	\$25,000
	Bicyle Friendly Intersections	5	EA	\$30,000	\$150,000
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$0
	Greenway with Sharrows (Class III) inc markings, signs	7200	LF	\$16	\$115,200
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$(
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	257	EA	\$1,600	\$411,200
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	14	EA	\$3,700	\$51,800
	Ped lighting 2 sides @ 30 FT OC	456	EA	\$6,300	\$2.872.800
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb outs with directional curb ramp	38	EA	\$32,000	\$1,216,000
	Enhanced crosswalks	1140	LF	\$74	\$84,360
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	17	EA	\$2,100	\$35,700
	Signal modification	1 1	EA	\$315,000	\$315,000
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0.0,000
	Traffic calming - Speed cushions / bumps inc signs	24	EA	\$3,700	\$88,800
	Traffic Circles	7	EA	\$31,500	\$220,500
	Traine Choise			ψο.,σσσ	\$220,00
				+	
				+	
	Estimated Cost Subtotal				\$5,587,00
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$280,00
	Mobilization (10% of Estimated Cost Subtotal)				\$559,000
	,				
	Utility Allowance (10% of Estimated Cost Subtotal)				\$559,00
	Contingencies (35% of Estimated Cost Subtotal)				\$1,956,00
	ESTIMATED CONSTRUCTION COST TOTAL				\$8,941,00
	Planning (2% of Estimated Construction Cost Total)				\$179,00
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$448,00
	Final Design Services (8% of Estimated Construction Cost Total)				\$716,00
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$805,00
	CM (5% of Estimated Construction Cost Total)				\$448,00
	Legal, Permits, 3rd Parties etc. (4%)				\$358,00
	SOFT COSTS TOTAL				\$2,954,00
	Unallocated Contingecy (10%)				\$1,190,00
	UNALLOCATED CONTINGENCY COST TOTAL				\$1,190,00
	TOTAL ESTIMATED PROJECT COST:				\$13,085,00

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Here LA Client

23205201 19-Jun-20 **ID No**: Date: Prepared by Steer

Expo / Crenshaw Station
Norton Ave - Ped Project DRAFT Project Name Status:

Description

Obama Blvd to Coliseum St

Link Length LF 1,100

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	48	EA	\$1,600	\$76,8
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	0	EA	\$3,700	7.0,
	Ped lighting 2 sides @ 75 FT OC	64	EA	\$6,300	\$403,
	Sidewalk paying enhancements	0	SF	\$21	7 ,
	Bulb outs with directional curb ramp	3	EA	\$32,000	\$96,
	Enhanced crosswalks	200	LF	\$74	\$14,
	Enhanced Bus stop	0	EA	\$28,000	*
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	
	Wayfinding - fingerposts	5	EA	\$2,100	\$10
	Signal modifications	0	EA	\$315,000	*.*
	Rectangular Rapid Flashing Beacons	2	EA	\$50,000	\$100
	Traffic calming - Speed cushions / bumps inc signs	4	EA	\$3,700	\$14
	Traffic Circle	0	EA	\$31,500	Ψ
				72.,222	
	Estimated Cost Subtotal				\$717
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$36
	Mobilization (10% of Estimated Cost Subtotal)				\$72
	Utility Allowance (10% of Estimated Cost Subtotal)				\$72
	Contingencies (35% of Estimated Cost Subtotal)				\$251
	ESTIMATED CONSTRUCTION COST TOTAL				\$1,148
	Planning (2% of Estimated Construction Cost Total)				\$23
	Preliminary Engineering (5% of Estimated Construction Cost Total)			\$58
	Final Design Services (8% of Estimated Construction Cost Total)				\$92
	PM for Design & Construction (9% of Estimated Construction Cost	Total)			\$104
	CM (5% of Estimated Construction Cost Total)				\$58
	Legal, Permits, 3rd Parties etc. (4%)				\$46
	SOFT COSTS TOTAL				\$381
	Unallocated Contingecy (10%)				\$153
	UNALLOCATED CONTINGENCY COST TOTAL				\$15
	TOTAL ESTIMATED PROJECT COST:				\$1.682.

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
	Expo / Crenshaw Station Norton Ave - Wheel Project	Status:	DRAFT		
Description					
	Norton Ave - Martin Luther King Jr Blvd to Obama Blvd				

Link Length LF 3800

\$612,000 **\$6,728,000**

TEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signal	0	EA	\$25,000	\$
	Bicyle Friendly Intersections	3	EA	\$30,000	\$90.00
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$
	Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$
	Greenway with Sharrows (Class III) inc markings, signs	3800	LF	\$16	\$60,80
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	224	EA	\$1,600	\$358,40
		0	EA		\$350,4U
	Street Trees - in hard + planting - 2 sides @ 30 FT OC		EA	\$3,700	\$4.504.00
	Ped lighting 2 sides @ 30 FT OC	242		\$6,300	\$1,524,60
	Sidewalk pavng enhancements	0	SF	\$21	\$
	Bulb outs with directional curb ramp	18	EA	\$32,000	\$576,00
	Enhanced crosswalks	480	LF	\$74	\$35,52
	Enhanced Bus stop	0	EA	\$28,000	\$
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$ 12.22
	Wayfinding - fingerposts	9	EA	\$2,100	\$18,90
	Signal modifications	0	EA	\$315,000	\$
	Rectangular Rapid Flashing Beacons	2	EA	\$50,000	\$100,00
	Traffic calming - Speed cushions / bumps inc signs	12	EA	\$3,700	\$44,40
	Traffic Circles	2	EA	\$31,500	\$63,00
	Estimated Cost Subtotal				\$2,872,00
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$144,00
	Mobilization (10% of Estimated Cost Subtotal)				\$288,00
	Utility Allowance (10% of Estimated Cost Subtotal)				\$288,00
	Contingencies (35% of Estimated Cost Subtotal)				\$1,006,00
	ESTIMATED CONSTRUCTION COST TOTAL				\$4,598,00
	Planning (2% of Estimated Construction Cost Total)				\$92,00
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$230.00
	Final Design Services (8% of Estimated Construction Cost Total)				\$368,00
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$414,00
	CM (5% of Estimated Construction Cost Total)				\$230,00
	Legal, Permits, 3rd Parties etc. (4%)				\$230,00
	SOFT COSTS TOTAL				
	Unallocated Contingecy (10%)				\$1,518,0 \$612,0

UNALLOCATED CONTINGENCY COST TOTAL

TOTAL ESTIMATED PROJECT COST:

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Here LA Client

23205201 19-Jun-20 **ID No**: Date: Prepared by Steer

Expo / Crenshaw Station
Coliseum Street - Ped Project DRAFT Project Name Status:

Description

Somerset Dr to Norton Ave

Link Length LF 1,500

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	24	EA	\$1,600	\$38,40
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	31	EA	\$3,700	\$114,70
	Ped lighting 2 sides @ 30 FT OC	76	EA	\$6,300	\$478,80
	Sidewalk pavng enhancements	0	SF	\$21	\$
	Bulb outs with directional curb ramp	4	EA	\$32,000	\$128,00
	Enhanced crosswalks	755	LF	\$74	\$55,87
	Enhanced Bus stops	2	EA	\$28,000	\$56,00
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	9
	Wayfinding - fingerposts	6	EA	\$2,100	\$12,60
	Signal modifications	0	EA	\$315,000	9
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	9
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	9
	Traffic Circle	0	EA	\$31,500	
				+	
				+	
	Estimated Cost Subtotal				\$885,0
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$45,0
	Mobilization (10% of Estimated Cost Subtotal)				\$89,0
	Utility Allowance (10% of Estimated Cost Subtotal)				\$89,0
	Contingencies (35% of Estimated Cost Subtotal)				\$310,00
	ESTIMATED CONSTRUCTION COST TOTAL				\$1,418,0
	Planning (2% of Estimated Construction Cost Total)				\$29,0
	Preliminary Engineering (5% of Estimated Construction Cost Total	1)			\$71,0
	Final Design Services (8% of Estimated Construction Cost Total)	,			\$114,0
	PM for Design & Construction (9% of Estimated Construction Cost	t Total)			\$128,0
	CM (5% of Estimated Construction Cost Total)	,			\$71,0
	Legal, Permits, 3rd Parties etc. (4%)				\$57,0
	SOFT COSTS TOTAL				\$470,0
	Unallocated Contingecy (10%)				\$189,0
	UNALLOCATED CONTINGENCY COST TOTAL				\$189,0
	TOTAL ESTIMATED PROJECT COST:				\$2,077,00
	TOTAL ESTIMATED PROJECT COST				*/ II// III

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
Project Name	Expo / Crenshaw Station Coliseum Street - Wheel Project	Status:	DRAFT		
Description					
	Martin Luther King to Obama Blvd				

Link Length LF 6,600

М	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signal - 1 junction	2	EA	\$25,000	\$50,00
	Bicyle Friendly Intersections	5	EA	\$30,000	\$150,00
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$
	Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$
	Greenway with Sharrows (Class III) inc markings, signs	0	LF	\$16	\$
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	13200	LF	\$12	\$158,40
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	Estimated Cost Subtotal				\$359.00
	Miscellaneous Items (5% of Estimated Cost Subtotal)				, , .
	Mobilization (10% of Estimated Cost Subtotal)				\$18,00
	Utility Allowance (10% of Estimated Cost Subtotal)				\$36,00
	·				\$36,00
	Contingencies (35% of Estimated Cost Subtotal)				\$126,00
	ESTIMATED CONSTRUCTION COST TOTAL				\$575,00
	Planning (2% of Estimated Construction Cost Total)				\$12,00
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$29,00
	Final Design Services (8% of Estimated Construction Cost Total)				\$46,00
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$52,00
	CM (5% of Estimated Construction Cost Total)				\$29,00
	Legal, Permits, 3rd Parties etc. (4%)				\$23,00
	SOFT COSTS TOTAL				\$191,00
	Unallocated Contingecy (10%)				\$77,00
	UNALLOCATED CONTINGENCY COST TOTAL				\$77,0
					Ţ. 1,0

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Client Here LA

19-Jun-20 **ID No**: 23205201 Date: Prepared by Steer

Expo / Crenshaw Station
Exposition PI - Ped Project DRAFT Project Name Status:

Description

S Bronson Avenue to Degnan Blvd

Link Length LF 1,240

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	0	EA	\$1,600	\$0
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	20	EA	\$3,700	\$74,000
	Ped lighting 1 sides @ 75 FT OC	42	EA	\$6,300	\$264,600
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb out with directional curb ramp	0	EA	\$32,000	\$0
	Enhanced crosswalk	0	LF	\$74	\$0
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	2	EA	\$2,100	\$4,200
	Signal modifications	0	EA	\$315,000	\$0
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
	Parking / People Space (paving & planting)	24800	SF	\$60	\$1,488,000
	Movement Space (paving)	37200	SF	\$40	\$1,488,000
	Street furniture clusters (seats, trash cans etc)	10	EA	\$30,000	\$300,000
	Estimated Cost Subtotal				\$3,619,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$181,000
	Mobilization (10% of Estimated Cost Subtotal)				\$362,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$362,000
	Contingencies (35% of Estimated Cost Subtotal)				\$1,267,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$5,791,000
	Planning (2% of Estimated Construction Cost Total)				\$116,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$290,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$464,000
	PM for Design & Construction (9% of Estimated Construction Cost Tota	l)			\$522,000
	CM (5% of Estimated Construction Cost Total)				\$290,000
	Legal, Permits, 3rd Parties etc. (4%)				\$232,000
	SOFT COSTS TOTAL				\$1,914,000
	Unallocated Contingecy (10%)				\$771,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$771,00
	TOTAL ESTIMATED PROJECT COST:				\$8,476,000
	TOTAL ESTIMATED PROJECT COST:				<u> 30,470,000</u>

	High Level Cost Estimate & Project Cost				
roject	Expo Crenshaw First / Last Mile Strategic Plan				
gency	Los Angeles Metro				
lient	Here LA				
repared by	Steer	Date:	19-Jun-20	ID No:	23205201
	Expo / Crenshaw Station Exposition PI - Wheel Project	Status:	DRAFT		
escription					

Link Length LF 1,240

S Bronson Avenue to Degnan Blvd

EM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signal junctions	0	EA	\$25,000	\$0
	Bicyle Friendly Intersection	0	EA	\$30,000	\$(
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$(
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$(
	Greenway with Sharrows (Class III) inc markings, signs	1240	LF	\$16	\$19,840
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$(
	Bike Parking (arranged in 5 clusters)	30	EA	\$1,000	\$30,000
	<u> </u>				
	Estimated Cost Subtotal				\$50,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$3,000
	Mobilization (10% of Estimated Cost Subtotal)				\$5,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$5,000
	Contingencies (35% of Estimated Cost Subtotal)				\$18,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$81,000
	Planning (2% of Estimated Construction Cost Total)				\$2,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$5,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$7,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$8,000
	CM (5% of Estimated Construction Cost Total)				\$5,000
	Legal, Permits, 3rd Parties etc. (4%)				\$4,000
	SOFT COSTS TOTAL				\$31,000
	Unallocated Contingecy (10%)				\$12,000
	UNALLOCATED CONTINGENCY COST TOTAL				\$12,00
-	TOTAL ESTIMATED PROJECT COST:				\$124,000

Project Expo Crenshaw First / Last Mile Strategic Plan

Agency Los Angeles Metro

Client Here LA

 Prepared by
 Steer
 Date:
 19-Jun-20
 ID No:
 23205201

Project Name Expo / Crenshaw Station Status: DRAFT

Buckingham Rd - Ped Project - NOT APPLICABLE

DRAFT

Description

Link Length LF

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	0	EA	\$1,600	\$0
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	0	EA	\$3,700	\$0
	Ped lighting 2 sides @ 30 FT OC	0	EA	\$6,300	\$0
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb out with directional curb ramp	0	EA	\$32,000	\$0
	Enhanced crosswalk	0	LF	\$74	\$0
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerpost	0	EA	\$2,100	\$0
	Signal modifications	0	EA	\$315,000	\$0
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
	Estimated Cost Subtotal				\$0
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$0
	Mobilization (10% of Estimated Cost Subtotal)				\$0
	Utility Allowance (10% of Estimated Cost Subtotal)				\$0
	Contingencies (35% of Estimated Cost Subtotal)				\$0
	ESTIMATED CONSTRUCTION COST TOTAL				\$0
	Planning (2% of Estimated Construction Cost Total)				\$0
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$0
	Final Design Services (8% of Estimated Construction Cost Total)				\$0
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$0
	CM (5% of Estimated Construction Cost Total)				\$0
	Legal, Permits, 3rd Parties etc. (4%)				\$0
	SOFT COSTS TOTAL				\$0
	Unallocated Contingecy (10%)				\$0
	UNALLOCATED CONTINGENCY COST TOTAL				\$0
	TOTAL ESTIMATED PROJECT COST:				<u>\$0</u>

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
	Expo / Crenshaw Station Buckingham Rd - Wheel Project	Status:	DRAFT		
Description					
	Santa Rosalia Dr to W 23rd St				

Link Length LF 9,200

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
	Bicyle Signals	27	EA	\$25,000	\$675,000
	Bicyle Friendly Intersections	2	EA	\$30,000	\$60,000
	8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
	Bike Lane (Class II) inc markings, signs	1000	LF	\$15	\$15,000
	Greenway with Sharrows (Class III) inc markings, signs	8200	LF	\$16	\$131,200
	Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	270	EA	\$1,600	\$432,000
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	68	EA	\$3,700	\$251,600
	Ped lighting 2 sides @ 30 FT OC	555	EA	\$6,300	\$3,496,500
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb outs with directional curb ramp	55	EA	\$32,000	\$1,760,000
	Enhanced crosswalks	2380	LF	\$74	\$176,120
	Enhanced Bus stops	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerposts	24	EA	\$2,100	\$50,400
	Signal modifications	0	EA	\$315,000	\$0
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushions / bumps inc signs	28	EA	\$3,700	\$103,600
	Traffic Circles	5	EA	\$31,500	\$157,500
		+			
		+			
	Estimated Cost Subtotal				\$7,309,000
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$366,000
	Mobilization (10% of Estimated Cost Subtotal)				\$731,000
	Utility Allowance (10% of Estimated Cost Subtotal)				\$731,000
	Contingencies (35% of Estimated Cost Subtotal)				\$2,559,000
	ESTIMATED CONSTRUCTION COST TOTAL				\$11,696,000
	Planning (2% of Estimated Construction Cost Total)				\$234,000
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$585,000
	Final Design Services (8% of Estimated Construction Cost Total)				\$936,000
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$1,053,000
	CM (5% of Estimated Construction Cost Total)				\$585,000
	Legal, Permits, 3rd Parties etc. (4%)				\$468,000
	SOFT COSTS TOTAL				\$3,861,000
	Unallocated Continuous (100/)				\$3,061,000

Unallocated Contingecy (10%)

UNALLOCATED CONTINGENCY COST TOTAL

TOTAL ESTIMATED PROJECT COST:

\$1,556,000 \$1,556,000 \$17,113,000

Expo Crenshaw First / Last Mile Strategic Plan Project

Los Angeles Metro Agency

Here LA Client

Description

19-Jun-20 **ID No**: 23205201 Prepared by Steer Date:

Expo / Crenshaw Station
7th St - Ped Project - NOT APPLICABLE DRAFT Project Name Status:

Link Length LF

IIEW	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	IUIAL
	Street Trees - in soft / existing well - 2 sides @ 30 FT OC	0	EA	\$1,600	\$0
	Street Trees - in hard + planting - 2 sides @ 30 FT OC	0	EA	\$3,700	\$0
	Ped lighting 2 sides @ 30 FT OC	0	EA	\$6,300	\$0
	Sidewalk pavng enhancements	0	SF	\$21	\$0
	Bulb out with directional curb ramp	0	EA	\$32,000	\$0
	Enhanced crosswalk	0	LF	\$74	\$0
	Enhanced Bus stop	0	EA	\$28,000	\$0
	Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	\$0
	Wayfinding - fingerpost	0	EA	\$2,100	\$0
	Signal modifications	0	EA	\$315,000	\$0
	Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
	Traffic calming - Speed cushion / bump inc signs	0	EA	\$3,700	\$0
	Traffic Circle	0	EA	\$31,500	\$0
	Traine on the			φο1,000	ΨΟ
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-					
				+	
				+	
	Estimated Cost Subtotal				\$0
	Miscellaneous Items (5% of Estimated Cost Subtotal)				\$0
	Mobilization (10% of Estimated Cost Subtotal)				\$0
	Utility Allowance (10% of Estimated Cost Subtotal)				\$0
	Contingencies (35% of Estimated Cost Subtotal)				\$0
	ESTIMATED CONSTRUCTION COST TOTAL				\$0
	Planning (2% of Estimated Construction Cost Total)				
					\$0
	Preliminary Engineering (5% of Estimated Construction Cost Total)				\$0
	Final Design Services (8% of Estimated Construction Cost Total)				\$0
	PM for Design & Construction (9% of Estimated Construction Cost Total)				\$0
	CM (5% of Estimated Construction Cost Total)				\$0
	Legal, Permits, 3rd Parties etc. (4%)				\$0
	SOFT COSTS TOTAL				\$0
	Unallocated Contingecy (10%)				\$0
	UNALLOCATED CONTINGENCY COST TOTAL				\$0
	TOTAL ESTIMATED PROJECT COST:				\$0

	High Level Cost Estimate & Project Cost				
Project	Expo Crenshaw First / Last Mile Strategic Plan				
Agency	Los Angeles Metro				
Client	Here LA				
Prepared by	Steer	Date:	19-Jun-20	ID No:	23205201
	Expo / Crenshaw Station 7th St - Wheel Project	Status:	DRAFT		
Description					
	Obama Blvd to Adams Blvd				

Link Length LF 5,150

DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
Bicyle Signals	8	EA	\$25,000	\$200,000
Bicyle Friendly Intersections	4	EA	\$30,000	\$120,000
8-80 Facility (Class IV Protected Bike Facility)	0	LF	\$100	\$0
8-80 Facility Bi Directional (Class IV Protected Bike Facility)	0	LF	\$100	\$0
Bike Lane (Class II) inc markings, signs	0	LF	\$15	\$0
Greenway with Sharrows (Class III) inc markings, signs	5150	LF	\$16	\$82,400
Greenway with Advisory Bike Lane (Class III) inc markings, signs	0	LF	\$12	\$0
Street Trace in coft / evisting well 2 sides @ 20 FT OC	196	EA	£4.000	#242.C00
Street Trees - in soft / existing well - 2 sides @ 30 FT OC	37	EA EA	\$1,600	\$313,600
Street Trees - in hard + planting - 2 sides @ 30 FT OC	296	EA EA	\$3,700	\$136,900 \$1.864.800
Ped lighting 2 sides @ 30 FT OC Sidewalk paying enhancements	296	SF	\$6,300 \$21	\$1,864,800
Bulb outs with directional curb ramp	34	EA	\$32,000	\$1,088,000
Enhanced crosswalks	1415	LF	\$32,000	\$1,000,000
Enhanced Bus stop	1410	EA	\$28,000	φ104,710
Outboard platform inc bus shelter, street furniture etc	0	EA	\$42,000	φ0 Φ0
Wayfinding - fingerposts	17	EA	\$2,100	\$35,700
Signal modifications	0	EA	\$315,000	\$0
Rectangular Rapid Flashing Beacon	0	EA	\$50,000	\$0
Traffic calming - Speed cushions / bumps inc signs	18	EA	\$3,700	\$66,600
Traffic Circle	0	EA	\$31,500	\$0
Estimated Cost Subtotal	· ·		I I	\$4,013,000
Miscellaneous Items (5% of Estimated Cost Subtotal)				\$201,000
Mobilization (10% of Estimated Cost Subtotal)				\$402,000
Utility Allowance (10% of Estimated Cost Subtotal)				\$402,000
Contingencies (35% of Estimated Cost Subtotal)				\$1,405,000
ESTIMATED CONSTRUCTION COST TOTAL				\$6,423,000
Planning (2% of Estimated Construction Cost Total)				\$129,000
Preliminary Engineering (5% of Estimated Construction Cost Total)				\$322,000
Final Design Services (8% of Estimated Construction Cost Total)				\$514,000
PM for Design & Construction (9% of Estimated Construction Cost Total)				\$579,000
CM (5% of Estimated Construction Cost Total)				\$322,000
Legal, Permits, 3rd Parties etc. (4%)				\$257,000
SOFT COSTS TOTAL				\$2,123,000
Unallocated Contingecy (10%)				\$855,000
UNALLOCATED CONTINGENCY COST TOTAL				\$855,00
TOTAL ESTIMATED PROJECT COST:				\$9,401,000

Expo/Crenshaw Station Connectivity Study

Relevant Plans and Projects Memo

October 16, 2019



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Relevant Plans and Projects

Introduction

The Expo/Crenshaw station is located in City of Los Angeles Council District 10 and at the epicenter of three Neighborhood Councils: West Adams, Empowerment Congress West, and United Neighborhoods. This light-rail station will act as a terminus of the Crenshaw/LAX line, will connect riders to the Expo Line, and will allow transit riders to access a wide range of regional destinations and jobs.

Over the last two decades, a significant amount of planning has been completed for the area surrounding the Expo/Crenshaw station. The increased attention to the area is indicative both of the need for enhancements and an energetic and activated community.

This study will consider the first/last mile needs of the 1/4-mile surrounding the Expo/Crenshaw station, while considering the design implications of the many adopted plans, policies, and anticipated development. Upon completion of a review of the relevant plans that are detailed in this memo, the team will make recommendations that seek to enhance the mobility network for all riders accessing transit in the area.

This memo presents a brief description of relevant City plans and projects and includes an overview of first/last mile implications that may result.

Relevant plans and projects include:

- Citywide and Relevant Plans/Projects
 - West Adams Baldwin Hills Leimert Community Plan
 - Crenshaw Corridor Specific Plan
 - Great Streets Challenge Grant
 - Crenshaw Blvd Streetscape Plan
 - Prop 1C Improvements
 - Crenshaw/LAX Transit Project
 - Destination Crenshaw
 - Vision Zero Crenshaw Safety Improvements
 - Metro NextGen Study
- Station Specific Plans/Projects
 - Expo/Crenshaw Station Joint Development Guidelines
 - Expo/Crenshaw Station Joint Development Project

The matrix below provides a brief snapshot of the plans and projects analyzed in this memo.

	Within 1/4 Mile of Rail Station	Includes ROW Improvements	Includes Streetscape Enhancements	Includes New Open Space	Includes New Development	Changes Circulation Patterns
West Adams - Baldwin Hills - Leimert Community Plan	✓					
Crenshaw Corridor Specific Plan	/	/	/			
Crenshaw Blvd. Streetscape Plan	/	/	/			/
Prop 1C Improvements	/		/			
Crenshaw/LAX Transit Project	/					/
Destination Crenshaw		/	/	/		/
Vision Zero Crenshaw Safety Improvements	✓		✓			✓
Expo/Crenshaw Station Joint Development Project	✓		✓	✓	✓	/
Expo/Crenshaw Station Joint Development Guidelines	✓					
Metro NextGen Study	/					/



Existing Plans & Projects

Citywide Plans

West Adams-Baldwin Hills-Leimert Community Plan Crenshaw Corridor Specific Plan Crenshaw Blvd Streetscape Plan

Completed

West Adams-Baldwin Hills-Leimert Community Plan (2012)

The West Adams-Baldwin Hills-Leimert Community Plan is an overarching document that was written with input from the community to guide future land use, urban design, and mobility improvements in the area. This Plan governs the entire 1/4-mile area surrounding the Exposition/Crenshaw transit station, but defers to the Crenshaw Corridor Specific Plan for plans regarding the area immediately surrounding the future Expo/Crenshaw station.

Crenshaw Corridor Specific Plan (2004, amended 2017)

The Crenshaw Corridor Specific Plan is a guiding document that specifies land use allowances along the Crenshaw Blvd. Corridor. For the purposes of this study, the Plan indicates that Crenshaw Blvd. from Victoria Ave. to Bronson Ave. and Exposition Blvd. from Victoria to 9th Avenue are a part of the "Subarea A" boundary (see image on the following page). This area is also classified as a Transit-Oriented Development Area, and has specific land use regulations that apply.

The Specific Plan lists land use allowances and defers to the Crenshaw Streetscape Plan for guidance on roadway recommendations.

Great Streets Challenge Grant (2017)

West Angeles CDC received a Great Streets Challenge Grant through the Great Streets Initiative. The grant provides support for community outreach to capture the community vision for enhancing public spaces around 54th St and Crenshaw Blvd through design, street furnishings, street trees, and public art.

Crenshaw Blvd Streetscape Plan (2016)

The Crenshaw Streetscape Plan details roadway reconfiguration concepts and recommended streetscape improvements along Crenshaw Blvd. between the 10 Freeway and 79th St. Although recommendations vary throughout the corridor, the design concepts aim to establish "unifying streetscape elements that are intended to tie the corridor together visually, and unique district streetscape elements that differentiate the corridor's many distinct neighborhoods."

The Streetscape Plan references the overarching Los Angeles Mobility 2035 Plan, which designates Crenshaw Blvd. as a Bicycle Enhanced Network and Bicycle Lane Network. The Plan recommends a bike lane to be added on Crenshaw Blvd. between 48th St. and 79th St., where it can be integrated without impacting the existing rightof-way or the lane configuration. The roadway between 48th St. to the north, however, cannot accommodate a bicycle facility without the reduction of either a travel lane

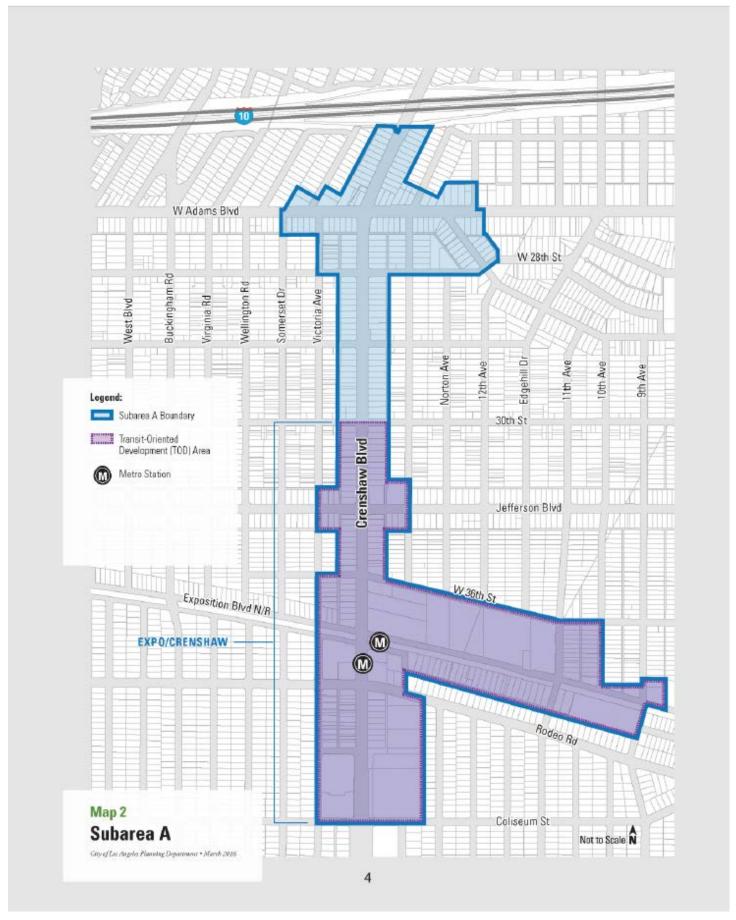


Diagram showcasing the boundaries of the Crenshaw Corridor Specific Plan

or parking lane. As such, the base Plan recommends a 'temporary' bike lane that would run along Degnan Blvd. (a parallel street that runs to the east of Crenshaw Blvd.) as an alternate north/south bicycle route.

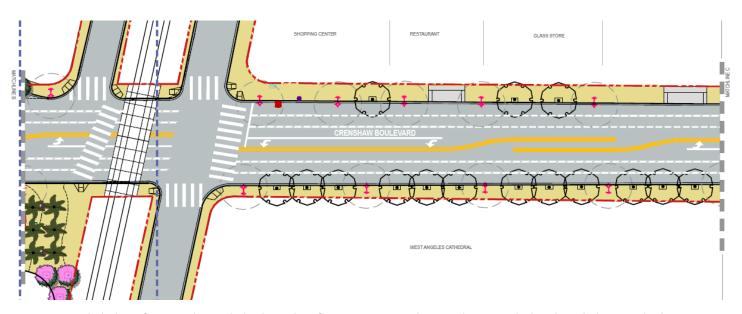
However, the narrative does indicate that during the community outreach conducted for the Plan, residents recommended additional changes to Crenshaw Blvd., north of 48th St. that would incorporate a protected bicycle lane. As a result of this desire, the City investigated the integration of a buffered bike lane with out-board bus islands (referred to as 'aspirational plans' (shown on the following page). This would require the conversion of the existing right-of-way from 6-lanes and a center turn lane to 2-lanes and center turn lane.

The community's request for these street changes should be considered for future first/last mile project recommendations, as a protected bike facility would provide safe connections for bicyclists accessing either of the two Metro stations, without jogging to the east onto Degnan Blvd.

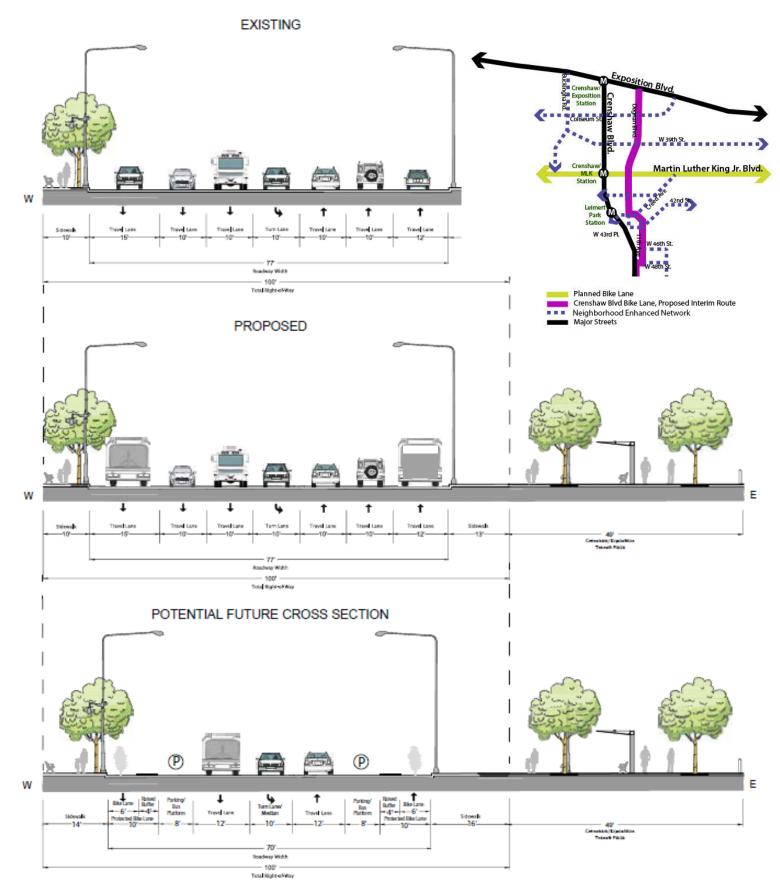
The Streetscape Plan also provides a series of improvements (some required, others suggested) that relate to streetscape characteristics. These include, but are not limited to: raised landscape medians, continental crosswalks, sidewalks with amenity zones, colored concrete, small curb radii, dual sidewalks, landscaping, and specific tree types.

First/Last Mile Implications

- » The Crenshaw Streetscape Plan alludes to community support for a protected bicycle facility along Crenshaw Blvd., north of 48th St. Although significant right-of-way changes would need to occur to accommodate a protected bicycle lane, additional emphasis should be placed on investigating this option further to enhance multi-modal access.
- » The collection of plans in this area indicates an activated community that must be involved in discussions for any multi-modal access improvements that are recommended as a part of this plan.
- » The proposed protected bicycle facility in the 'aspirational plans' include outboard bus islands. Given the presence of the Crenshaw line and Metro's recasting of the bus network as part of the NextGen study, the street should be analyzed to understand if outboard bus platforms are needed in the context of the new transportation network.



Recommended plans for Crenshaw Blvd. The right-of-way recommendations do not include a bicycle lane in the base report. A protected bicycle lane is referenced as an 'aspirational plan'. A diagram of the potential right-of-way configuration for the protected bicycle lane proposal is shown on the following page.



Recommended and 'aspirational plans' for Crenshaw Blvd (above)

Map (top right) identifies the northern portion of the proposed 'interim' bicycle facility (in purple) that runs along Degnan Blvd. to avoid the right-of-way constraints on Crenshaw Blvd.

Prop 1C Improvements

Ongoing

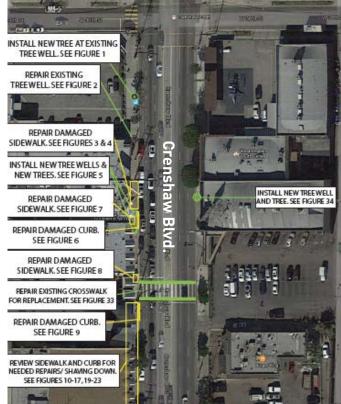
In 2009, a Prop 1C grant was awarded for the Crenshaw Mid-City Corridors Infill Infrastructure Project. The grant is managed by Mayor Garcetti's office and the LA Housing and Community Investment Department. The \$14.6m grant includes improvements along Jefferson Blvd. and Crenshaw Blvd. Streetscape improvements include elements like:

- » Repaired sidewalks, driveways, and treewell;
- » Installation of new bus shelters
- » Installation of new trees and tree wells
- » Introduction of new ADA curb ramps and continental crosswalk legs
- » Tree pruning

First/Last Mile Implications

- » The improvements included in the grant will upgrade existing sidewalks and crossings (and improve the first/ last mile environment) but will not reconfigure the streetspace.
- » Bike facilities are not included.
- » New crosswalks introduced are Continental, however they are not shown to include bi-directional curb ramps.
- » Improvements extend the full length of Crenshaw Blvd., from Exposition Blvd. to 30th St. They also include Jefferson Blvd, from 8th Ave. to Bronson Ave. (ends two blocks east of Crenshaw Blvd.).



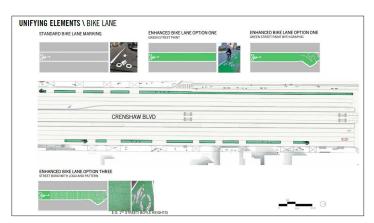


Diagrams from the Prop 1-C Overview Package Crenshaw Blvd., south of Jefferson Blvd. (left) & Crenshaw Blvd., south of 30th St. (right)

[Other] Plans



Overview map of the Crenshaw/LAX Transit Project





Images from top to bottom: Crenshaw/LAX Transit Project map, bike lanes, and streetscape design language from Destination Crenshaw

Crenshaw/LAX Transit Project (Ongoing)

The Crenshaw/LAX Transit Project is the overarching impetus guiding this document. It will connect the existing Exposition Line to the Metro Green Line and will serve the cities of Los Angeles, Inglewood, El Segundo, and portions of unincorporated Los Angeles County. Within the Expo/Crenshaw study area, streetscape and roadway improvements are proposed on Crenshaw Blvd from Rodeo Pl to Exposition Blvd. Relevant components include street vacations, bus turn outs, street trees, and enhanced pedestrian and transit facilities. A knock out panel will also be included on the west side of Crenshaw Blvd to allow for a future second station portal north of the existing gas station. The second portal would improve transit access allowing riders to enter and exit on both sides of Crenshaw Blvd. See the Ongoing Plans/Projects Proposed Improvements map at the end of this document.

Destination Crenshaw (Ongoing)

The Destination Crenshaw Plan outlines a design approach to create a unified Crenshaw Blvd. with different character nodes that span from 59th St. to Vernon Ave. Improvements recommended include Crenshaw Park, sidewalk improvements, crosswalk improvements, special districtinspired paving patterns, bike furniture, shade structures, and lighting. Although the project extents do not touch the 1/4-mile area surrounding the Exposition/Crenshaw station, there have been early discussions about the possibility of extending the design language further north, to the station area.

Crenshaw Blvd Safety Improvements, LADOT Vision Zero Priority Corridors (Ongoing)

Crenshaw Blvd. has been identified as a Vision Zero Priority Corridor by the High Injury Network. LADOT is installing safety improvements on 5.7 miles of Crenshaw Blvd., between 79th St and Pico Blvd., including leading pedestrian intervals, continental and ladder crosswalk upgrades, protected left turns, and more. Implementation of further improvements will be revisited once construction on the Crenshaw Line has ceased.

Metro NextGen (Ongoing)

The Metro NextGen Plan is an ongoing effort to redefine the Metro bus network. Engineers and planners are analyzing the current bus system, performance, ridership, and demand to understand transportation needs throughout the County. The changes recommended as a part of the NextGen Plan will directly influence improvements recommended as they relate to bus infrastructure in the public realm. At this time, draft plans have not yet been released, but will be consulted as information becomes available.

Expo/Crenshaw Joint Development & Expo/Crenshaw Joint Development Guidelines

Ongoing

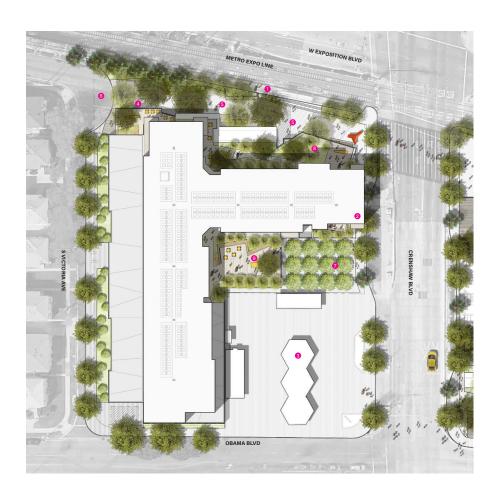
Expo/Crenshaw Joint Development Sites

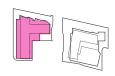
The Metro Joint Development sites are located south of Exposition Blvd., on either side of Crenshaw Blvd. (see illustrative plan below). The western site (Site A) is currently the LA County Probation Department Office, while the eastern site (Site B) is being used as a staging area for the Crenshaw/LAX light-rail project. The two sites will be transformed into two mixed-use, 7-story buildings that will include 400 housing units, 8,500 sq ft of retail space, 28,000 sq ft of retail space for a grocery store, and large public plazas.

The two joint development sites will provide a key connection for transit users who are transferring between the Expo Line and the Crenshaw Line. Transfers between the two transit lines will require coordination and enhanced safety measures for the high pedestrian volumes anticipated through the Crenshaw Blvd. and Exposition Blvd. intersection.



Joint Development Overview (from August 2019)

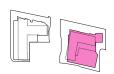




LEGEND

- 1 EXPO/CRENSHAW STATION
- 2 SITE A BUILDING
- 3 SHELL GAS STATION
- 4 RESIDENTIAL LOBBY
- **5** EXPO PARK PROMENADE
- 6 DROP OFF ZONE
- 7 BUS PLAZA
- 8 AMENITY DECK (L2)
- 9 AMENITY DECK (L3)





LEGEND

- 1 EXPO/CRENSHAW STATION
- 2 SITE B BUILDING
- 3 METRO PORTAL
- 4 RESIDENTIAL LOBBY
- 6 GROCERY PLAZA
- **6** METRO STRUCTURE
- 7 PUBLIC ART
- 8 AMENITY DECK L2
- 9 AMENITY DECK L3
- 10 OUTDOOR PATIO
- 1 SERVICE YARD (EXISTING)

The Crenshaw/LAX Transit Project has secured a street vacation north of Metro property (Site B) on Exposition Pl. between Crenshaw Blvd. and S. Bronson Ave. The developer is pursuing a street vacation north of the County property (Site A) on W. Exposition Blvd. between Crenshaw Blvd. and S. Victoria Ave. The vacation of these streets will allow for large 52' (north of Site B) and 39' (north of Site A) pedestrian plazas.

10 Metro ADA parking spots will be provided on site. Transit riders will also be able to utilize the West Angeles Cathedral parking structure which is located approximately one block north of Exposition Blvd. Quality access to and from this parking structure will be paramount to ensure the safety of transit riders accessing both stations.

To generate the latest development design concepts, several public meetings have been held with local residents regarding the future sites. According to the Watt Companies survey, when comments pertained to mobility and access, 78% of community members requested pedestrian enhancements and 49% requested "last mile" improvements in the area.

Expo/Crenshaw Joint Development Guidelines

The Metro Joint Development program provides background for and contextualizes the Expo/Crenshaw Joint Development sites. The document describes the conditions of the surrounding community as mostly low-scale residential with some commercial establishments along Crenshaw Blvd. and Exposition Blvd.

The Guidelines indicate that the combination of the two Metro stations will provide access to a total of 480,000 jobs in the region - connecting riders to Downtown Los Angeles, Santa Monica, and the LAX area.

To generate the Expo/Crenshaw Joint Development Guidelines, Metro held several community workshops from 2015 - 2016. Community members advocated for the following goals:

» Realize a culturally distinct and iconic gateway destination that serves residents and attracts visitors:

- » Create a village experience that is a walkable and safe community place with green and open space;
- » Incorporate high-quality and local-serving uses including retail, sit-down restaurants, and a neighborhood grocery store;
- » Develop a range of housing types affordable to existing residents including seniors and families;
- » Foster community job growth and opportunity during and after development;
- Offer sufficient parking for commuters and minimize parking impacts on surrounding communities; and
- » Encourage and provide opportunities for ongoing community input in the Joint Development process and proposed project.

Beyond land use guidelines that include provisions for setbacks, height allowances, project orientation, and scale, the document defers to the City of Los Angeles Crenshaw Boulevard Streetscape Plan for Guidance regarding roadway and streetscape transformations (see citywide plans).

First/Last Mile Implications

- » A large pedestrian plaza on the north side of Sites A and B will create ample gathering space for transit riders accessing both the Expo Line and the Crenshaw line.
- » Access to/from the Metro shared parking with West Angeles Cathedral will be critical. High visibility crosswalks, leading pedestrian intervals, and tight curb radii will need to be maintained along Crenshaw Blvd. and Exposition Blvd. to ensure safe access across the street.
- » As this station will serve as the current terminus of the Crenshaw line (although the line will extend to the north in future years), design concepts should take into account Metro's Transfer Design Guidelines and toolkit of improvements to create intuitive transfers for riders.



Mapping & Analysis

Opportunities & Constraints

This section analyzes the existing and proposed conditions within the 1/4 mile study area. The first diagram presents an overview of opportunities and constraints, which summarizes some of the main takeaways about the walking and biking environment. The following diagrams showcase the existing conditions in the study area, including: community destinations, the transit network, safety conditions, pedestrian amenities, street conditions, and the bicycle network. The final diagram shows ongoing plans, projects, and proposed improvements.

Selected Takeaways

Opportunities and Constraints

- » There are little to no pedestrian and bicycle amenities on the streets in the area, such as trees, street furniture, bike racks, sidewalk lights, bike lanes, etc.
- » East/west streets are barriers to north/south movement for people walking and biking because of limited street crossings along their lengths.
- » Wide streets encourage speeding and downgrade the experience for people walking and biking.
- » Connections across the Expo rail tracks are limited.

Community Destinations

- » Destinations in the area are concentrated along Crenshaw Blvd. and secondarily along Jefferson Blvd.
- » Large retail destinations in the area include the big box centers at Coliseum St. and Crenshaw Blvd.
- » The West Angeles Cathedral is a major community destination at the center of the study area.

Transit Network

- Both Crenshaw Blvd. and Jefferson Blvd. carry bus lines, including both Metro and DASH service.
 The corner of Crenshaw Blvd. and Jefferson Blvd. has a cluster of bus stops.
- » The two intersecting rail lines are a major asset for people walking, biking, and taking alternative forms of transportation.

Safety

- » Both Crenshaw Blvd. and Jefferson Blvd. contain high number of collisions.
- » In the study area, the corners of Jefferson Blvd. with Buckingham Rd., Crenshaw Blvd., and 11th

- Ave., along with the intersections of Crenshaw Blvd. with Obama Blvd., Coliseum St., and Exposition Blvd. show the highest rates of collisions between 2012-2016.
- » Higher speed limits on major streets provide an unsafe and uncomfortable experience for people walking and biking.

Pedestrian Amenities

- » Pedestrian amenities are limited in the study area with limited to no tree cover, limited crosswalks, missing bus stop amenities, and uni-directional (rather than bi-directional) curb ramps.
- » Sidewalk quality ranges from average to extremely poor.

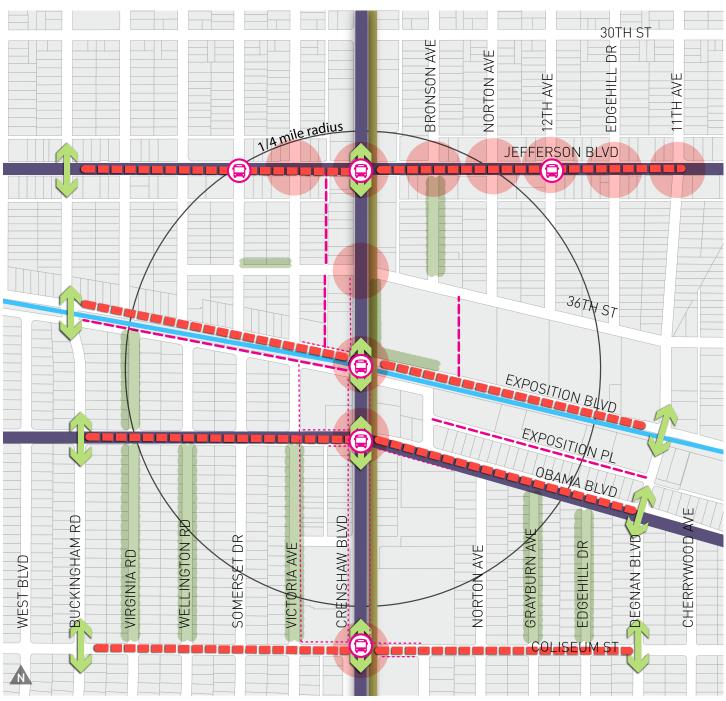
Street Conditions

- » The streets in the area prioritize east-west vehicular movement.
- » All east/west streets are 40ft and above in curbto-curb width and have limited north/south crossings.
- » Many streets have poor roadway quality because of paving issues.
- » Signalized intersections are located along the major streets.

Bicycle Network

- Exposition Blvd., is one of the only streets in the study area, which has bicycle lanes. These lanes, however, are narrow at 4ft wide and are not buffered from traffic.
- » There are two main proposed bicycle facilities in the study area: bike lanes on Jefferson Blvd. and Crenshaw Blvd. All other proposed facilities are sharrows.

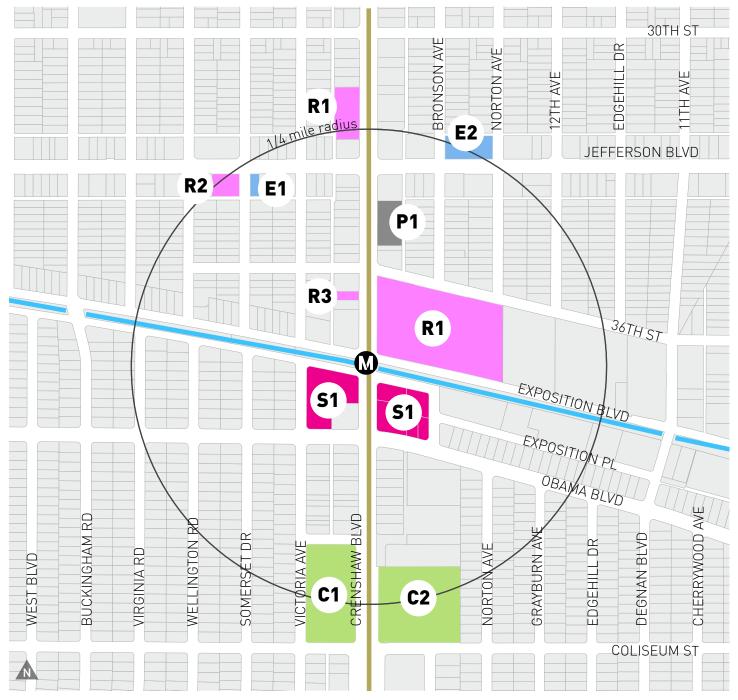
Opportunities & Constraints



Existing signalized crossings are critical in providing safe crossings across E/W thoroughfares. Shade and good tree canopy is present in some residential streets. E/W streets around the station are barriers to N/S movement with over 1,300' between crossings. Wide street widths along arterials promote high vehicular speeds and an unpleasant pedestrian environment. High collisions occur on arterial streets of Crenshaw Blvd. and Jefferson Blvd. The transit environment around the station is consistently poor with little to no amenities. There are potential cut-through routes through alleyways and low vehicular streets such as Exposition Pl. A new cut-through through the West Angeles Cathedral parking lot could provided improved access to residential areas to the north. Pedestrian frontage improvements have also been identified at commercial areas with blank facades or strip mall character.

Strengths **Constraints** Signalized Crossings Barriers to North-South that permits north-Movement south pedestrian Wide Right-of-Way movement High Collision Adequate Shade Intersections **Opportunities** Potential Cut-through Other Metro Expo Line ----- Pedestrian Frontage Improvements Metro Crenshaw/LAX Line Poor Transit Environment

Community Destinations



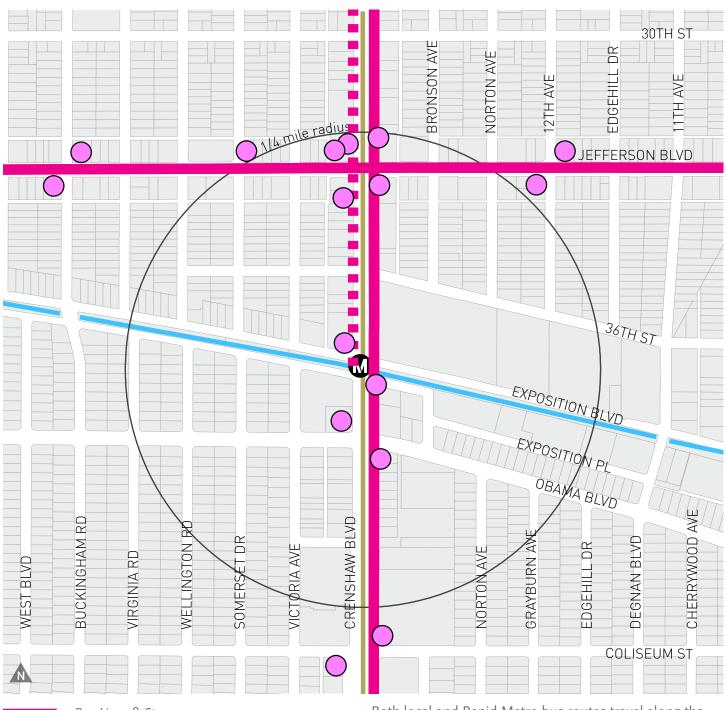
- S1 Joint Development Sites
- R1 West Angeles Cathedral
- R2 Hope Memorial Lutheran Church
- R₃ Masjid Abu Bakr As Siddiq (Mosque)
- E1 Head Start At Hope Memorial
- E2 Celerity Nascent Charter School
- C1 Commercial Center (CVS, Auto Club, RAC, etc.)
- C2 Commercial Center (Walgreens, Big 5, etc.)
- P1 Parking Structure





The West Angeles Cathedral is a major destination adjacent to the station.

Transit Network

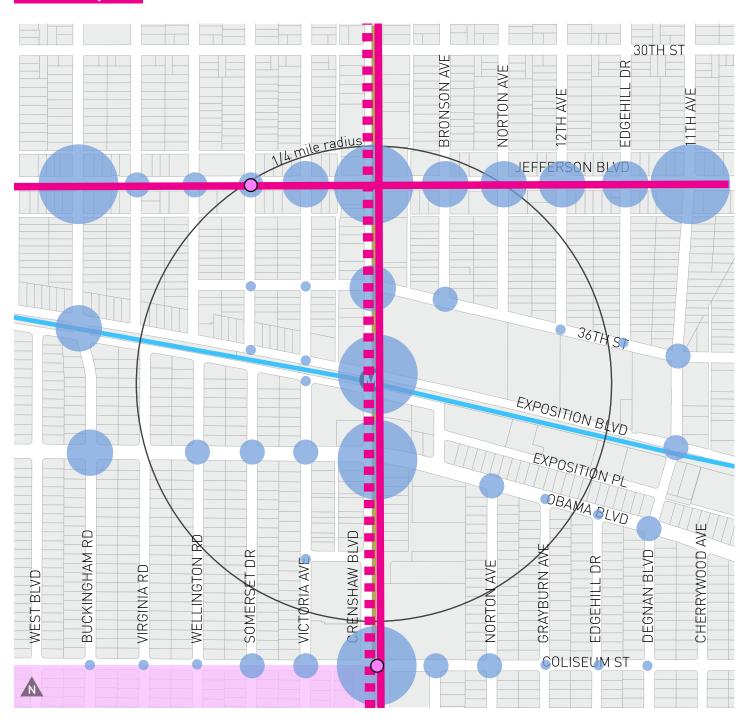


Bus Lines & Stops
Lines 210, 710, 740, 35/38;
DASH Midtown, DASH Crenshaw
City of LA Mobility Plan Transit Enhanced Network
Metro Expo Line

Metro Crenshaw LAX Line

Both local and Rapid Metro bus routes travel along the two main streets within the study area: Crenshaw Blvd. and Jefferson Blvd. Metro's Rapid Line 740 connects south past the Green Line, through Inglewood, Lennox, Lawndale, and to Redondo Beach. The 710 Rapid travels up to Wilshire/Western and down to Redondo Beach as well. This bus follows a similar route to the 210 Local, however this bus also extends up past Wilshire/Western to Hollywood/Vine. The 35/28 travels east/west from the area near USC to La Cienega/Jefferson and Culver City. Most bus stops in the area are missing simple amenities like benches and shelters for people waiting.

Safety





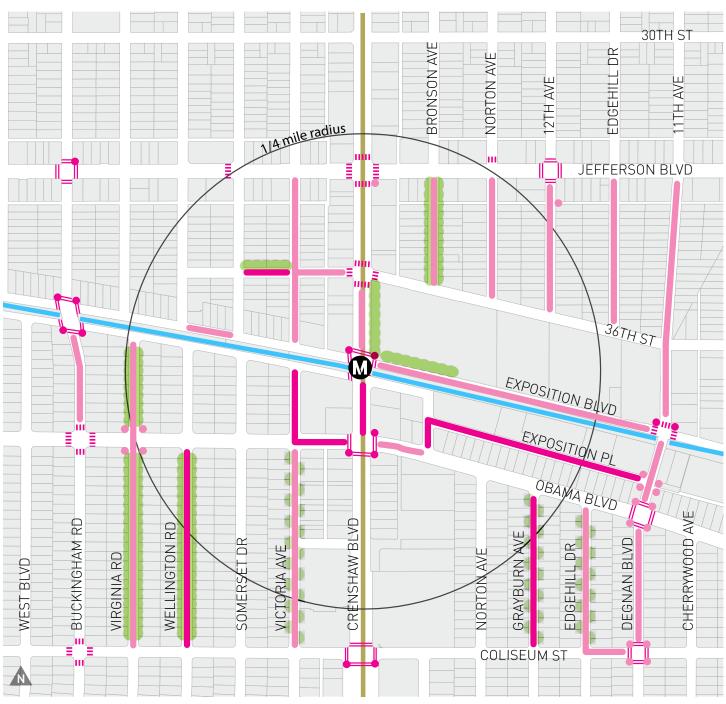
City of LA High Injury Network
Pedestrian Fatality (2012-2016)
11-25 Collisions (2012-2016)
5-10 Collisions (2012-2016)
2-4 Collisions (2012-2016)
1 Collision (2012-2016)
Crenshaw Blvd Safety Improvement Project
Baldwin Hills Senior Zone Project

Metro Expo Line Metro Crenshaw LAX Line The majority of collisions in the area between 2012-2016 were located on Jefferson Blvd. and Crenshaw Blvd., with the two most dangerous intersections being Jefferson/Crenshaw (25 collisions) and Crenshaw/Obama (13 collisions). As expected, collisions are more prevalent in locations where there are higher posted speed limits.

Crenshaw Blvd	35 mph	Oba
Jefferson Blvd	35 mph	Coli
Exposition Blvd	35 mph	

Obama Blvd	40 mph
Coliseum St	30 mph

Pedestrian Amenities



The pedestrian conditions surrounding the station are average to poor. Long blocks are accompanied by little to no tree cover. Sidewalks are in various states of repair; many of the blocks that offer shade also have sidewalks that suffer from root intrusion. Standard curb ramps exist at the majority of intersections. In some instances ramps may be missing, or they have been enhanced to bi-directional ramps. Crosswalks are infrequent, particularly along Coliseum St. and Obama Blvd., and restrict NS movement.

Curb Ramps

Unless noted, standard curb ramps exist at all other intersections.

- Missing or damaged
 - Bi-directional ramps

Crosswalks

Standard crosswalk

IIIIIII Continental crosswalk

Sidewalk Quality

Poor (lifted slabs, cracked)

Extremely poor (severe root intrusion, difficult to navigate)

Tree Cover

Dense tree cover

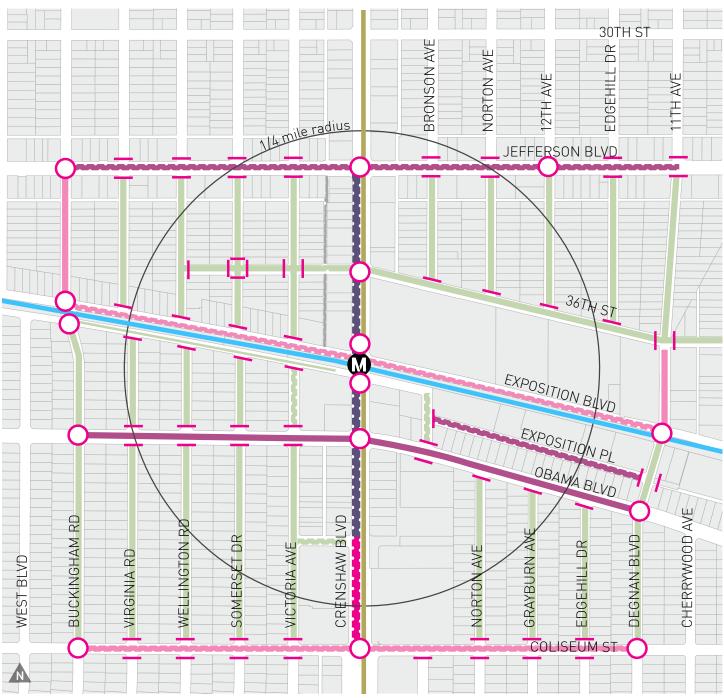
Sporadic tree cover

Other

Metro Crenshaw LAX Line

Metro Expo Line

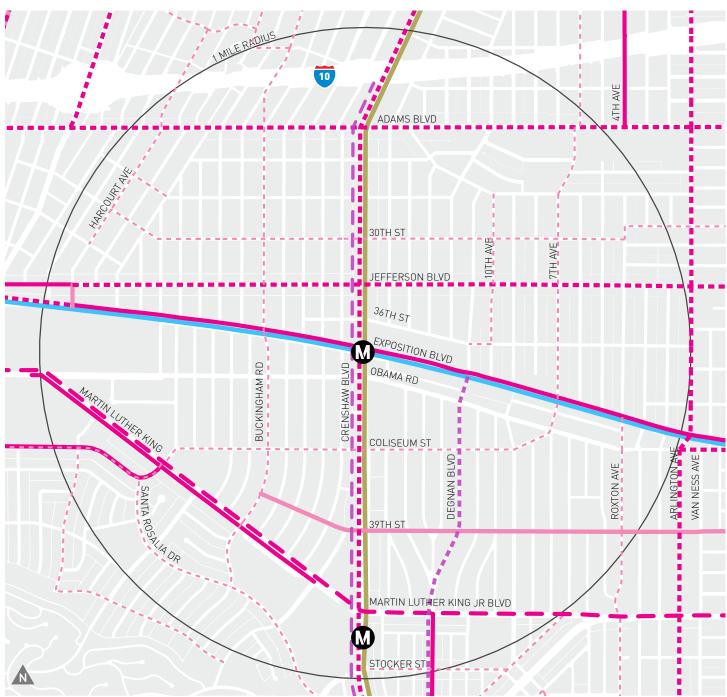
Street Conditions



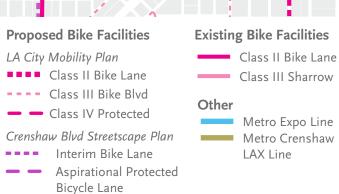
The street network in the area prioritizes east-west movement. All east-west streets are 40' and above, except for 36th St. Stop controls are also mainly north-south, further facilitating east-west movement. Because of the at-grade Expo Light Rail Line, Exposition Blvd. acts as a physical barrier for north-south movements. North-south crossings on Exposition Blvd. occur at Buckingham Rd., Crenshaw Blvd., and Degnan Blvd. Crenshaw Blvd. is the widest street at 70'-75' and increases to 95' south of Rodeo Pl. The major thoroughfares near the station have poor roadway quality with visible cracks and rough texture. Alleys also have observed poor roadway conditions.



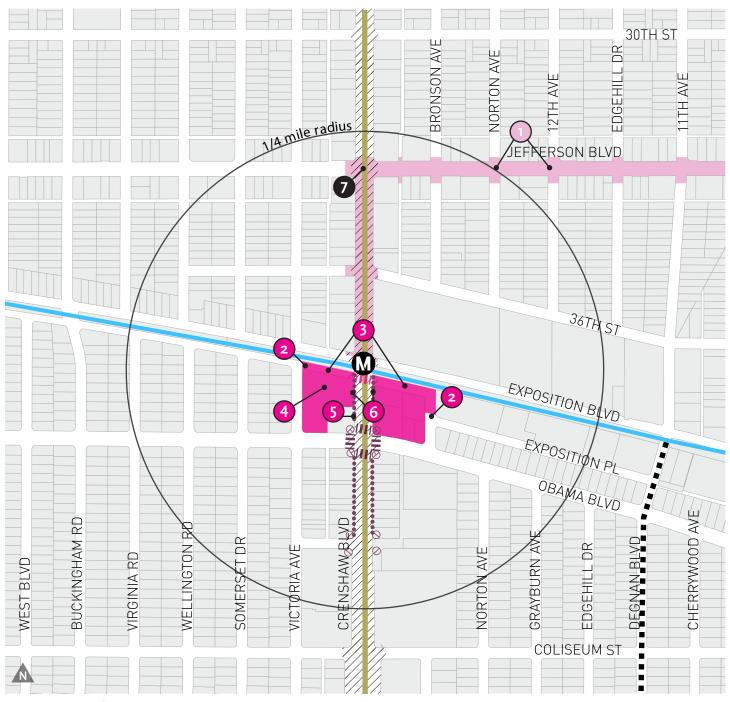
Bicycle Network



Existing bike lanes on Exposition Blvd. are narrow (4 ft), placed along the curb edge, and immediately adjacent to vehicular lanes (without a buffer). The lanes are located partially in the concrete gutter, creating a less-than-friendly experience for people riding bikes. City-proposed bike facilities include a bike lane along Crenshaw Blvd. and Jefferson Blvd. Coliseum St. and 30th St are city proposed bike-friendly streets. The Crenshaw Blvd. Streetscape Plan proposed an Aspirational protected bicycle lane on Crenshaw Blvd., with an Interim Bike Lane on Degnan Blvd.



Ongoing Plans/Projects Proposed Improvements



Improvements (by project)

Metro JD Project

Improvements include bike racks, electric vehicle charging stations and ADA parking stalls.

- Continental crosswalk
- 2 Vehicle drop-off zone
- 3 Street vacation
- 4 Bike hub
- 5 Knock out panel
- 6 Bus turnouts

Crenshaw/LAX Transit Project

- **IIIII** Continental crosswalk
- Street trees, landscaping, street lighting

Prop 1C Improvements

Improvements include infill street trees, pedestrian lighting, sidewalk repairs and updated curb ramps.

Continental crosswalks

///, Crenshaw Streetscape Plan

Improvements include infill street trees, pedestrian and cobrahead lights, updated curb ramps and updated bus shelters.

- Degnan Blvd. Temporary Bike Lane (Crenshaw Blvd Streetscape Plan)
- Protected left turn signal (Crenshaw Blvd Safety Project)
- Metro Expo Line
- Metro Crenshaw LAX Line

Appendix D

Community Voices EXPO/CRENSHAW STAKEHOLDER MEETINGS SUMMARY

Overview



CONTEXT

As part of the Expo/Crenshaw
First/Last Mile Strategic Plan, 28
community members participated
in three small-group conversations
with the design and planning team,
during the winter of 2019. All three
meetings were held within the study
area and included conversations with:

- A local Youth Group (held on November 14, 2019, at the West Angeles Youth Center, 3010 Crenshaw Blvd)
- Neighborhood Representatives from local Neighborhood Councils and an HOA (December 9, 2019, Crenshaw/LAX Project Office, 3699 Crenshaw Blvd)
- Bicycle and pedestrian advocates (December 17, 2019, Crenshaw/ LAX Project Office)

The goals of the meetings were to introduce the First/Last Mile visioning project to community members and gather feedback about issue areas, priorities, and ideas for public realm improvement within the study area, which includes a 1/4 mile around the new Expo/Crenshaw station.

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28

COMMUNITY

YOUTH GROUP

MEMBERS

MEMBERS

AFFILIATES O

NEIGHBORHOOD

BIKE & PEDESTRIAN ADVOCATES



CONVERSATION STRUCTURE

Each meeting began with a brief presentation about the project. The design and planning team defined the 'First/Last Mile' and provided examples of issues and opportunities for First/Last Mile improvement, as food for thought. Following the presentation, the group

gathered around large format maps to discuss their thoughts. Key feedback from these conversations is summarized in the next section and individual comments received are illustrated on the two maps that follow.

KEY FEEDBACK

Conversations focused almost exclusively on ways to improve the walking and bicycling environment around the station. The need to preserve parking was only mentioned twice during the three meetings and none of the comments recorded included ideas for widening vehicular lanes or increasing vehicular access (beside drop off areas and car share at the station), although several participants did note the traffic congestion that exists in the areas, especially during rush hour. Several participants urged the design and planning team to 'think big' and consider street improvements that would drastically improve conditions for people walking and biking, for example adding cycle tracks, transforming streets into Complete Streets, and adding consistent landscaping and an undulating planted parkway along entire stretches of streets.

The large majority of people emphasized the need for more pleasant and human-friendly streets, especially in terms of

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KEY FEEDBACK

- 1 Think big! In general, prioritize the safety and comfort of people walking and biking.
- 2 Crenshaw and Expo are the streets most in need of an overhaul for people walking and biking.
- 3 Shade, lighting, enhanced crossings, and improved bicycle facilities are some of the biggest needs study area-wide.

more trees and shade, sidewalk lighting for pedestrian safety at night, calming speeding cars, and general beautification along the streets.

Many people suggested adding in bicycle lanes, especially those that are buffered or protected, noting the inadequate and unsafe conditions for people who are riding their bikes on many of the streets with the study area.

Generally speaking, wayfinding signage was recommended for the full study area, especially around key decision-making points, for example adjacent to the Metro parking garage or at the Crenshaw and Exposition intersection.

PROBLEM & IMPROVEMENT AREAS

Commentary focused on both identifying problem areas and areas were improvements should be located. Crenshaw Blvd, Exposition Blvd, & Obama Blvd rose to the top as "Problem Areas." Conversely Crenshaw Blvd and Exposition Blvd were corridors where participants recommended the most improvements.

Crenshaw Blvd, especially the segment north of Exposition Blvd, was identified almost exclusively as the top improvement area.

Recommendations along Crenshaw

Blvd included a full suite of changes: pedestrian lighting, a cycle track, landscaping and trees, enhanced crossings, traffic calming, bus stop enhancements (including real time signage, wifi, security call boxes, touch screen kiosks, and other technology), widened sidewalks, and cool pavement. Some people also recommended adding corner bulb-outs to make it easier to cross Crenshaw Blvd. Community members referenced the Crenshaw Blvd Streetscape Plan and would like to see the Plan's recommendations implemented within the study area.

Exposition Blvd was also brought up in every group as a priority street for improvements, including new pedestrian lighting, widened sidewalks, enhanced crossings with Leading Pedestrian Intervals, and introduction of a cycle track. Many people noted the inadequate condition of the bike lane on Exposition Blvd because of its width, proximity to vehicles, and location partially within the gutter.

Obama Blvd was identified as needing traffic calming, corner bulb-outs, pedestrian lighting, and enhanced crossings. Many of the intersections on the street do not have marked crosswalks.

Key streets recommended for bicycle connections included Crenshaw Blvd (protected facility), Exposition Blvd (protected facility), Jefferson Blvd (bike lane continuation), Coliseum St (bike lane), Norton Ave (Greenway), and Degnan Blvd (unspecified). As mentioned previously, safety for bicycles was a major topic of conversation. Some of the youth who regularly bicycle and ride their skateboards pointed out that it is much more pleasant to ride along side neighborhood streets, than along Crenshaw Blvd, Exposition Blvd, or Obama Blvd due to speeding traffic and noise. Coliseum St was generally preferred over Obama Blvd for an enhanced bicycle connection, due to the speed of traffic, character of the street, and regional connectivity.

Public art was brought up both in terms of its beautification potential and its potential to help calm traffic, when applied in crosswalks.

Amenities for seniors and children were also brought up; participants stressed the need to make the streets comfortable for all ages and abilities.

Several creative ideas were brought up that represented out of the box thinking, including:

 Transforming Exposition Pl into a Shared Street (or Woonerf) with permeable paving, new landscaping, seating areas, and bicycle-friendly conditions. The

- Annenberg Paseo in South LA was brought up as a precedent for the street.
- Improvements to the Exposition Blvd bicycle lane, including introduction of a cycle track, one or two way, which could potentially use some of the landscaped portion of the Metro rail right-of-way
- Transformation of Exposition Blvd into a Complete Street
- Introduction of technology such as wifi-enabled bus stops and touch-screen kiosks to make the First/Last Mile experience more seamless
- Transforming unused space along streets (for example on Crenshaw Blvd) into parklets or mini parks
- Adding neighborhood-scaled traffic circles in residential areas, for example along Coliseum St.

DESCRIPTIVE MAPS

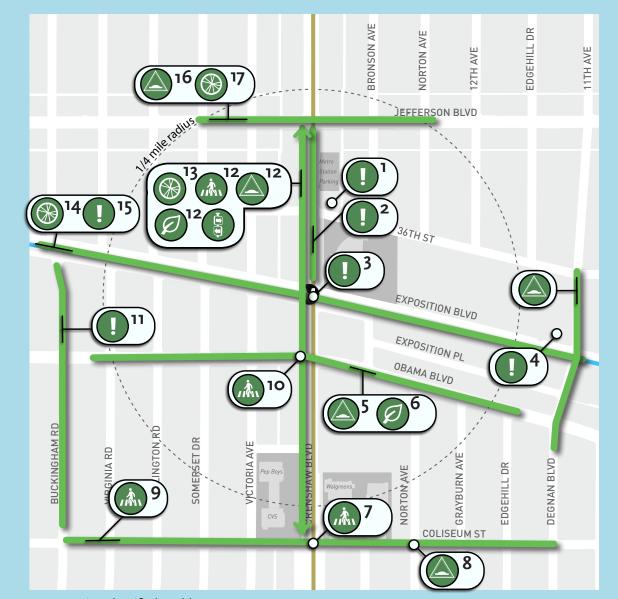
The next pages present comments received from the three meetings, including both problem areas and improvement ideas. Notes are included at the top, when further description is needed.

Problem Areas

Notes

- 1. Blighted parcel can feel unsafe
- Critical street segment in need of attention. Not pleasant to walk (or bike) here (Jefferson Blvd to Expo Blvd).
- Traffic backups here often. In this area also consider pick up/drop off areas, car share access, and bus transfer ease and safety.
- 4. New development in the area will need connection to Metro stations

- 5. Lots of cut-through traffic
- 6. No shade
- 7. Difficult crossing
- 8. Many collisions occur here
- Visibility is limited and therefore it is hard to cross the street
- 10. Problem intersection
- 11. Often congested
- 12. Generally busy, loud, lacking shade, and needs better crossings
- 13. Poor bike connectivity
- 14. Biking environment is not friendly (narrow lane, partly within the gutter, without buffer)
- Crossing Exposition north/south is difficult and is an obstacle to pedestrian and bicycle movement
- 16. Traffic moves way too fast
- 17. Bike lane stops / does not continue



Safety Issues



Missing or Inadequate Crosswalk



Fast Traffic

Comfort Issues



No Shade or Greenery



Lacking Wayfinding



Lacking Appropriate Bicycle Facility



Other

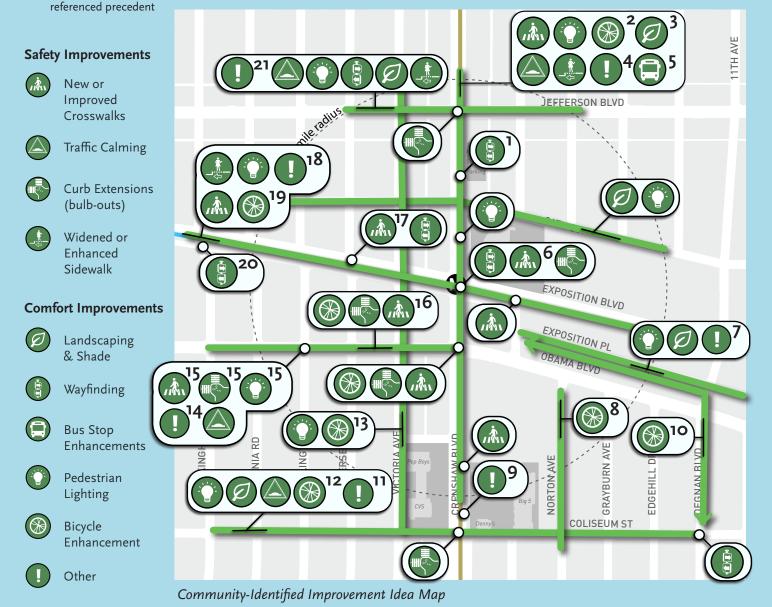
Improvement Ideas

Notes

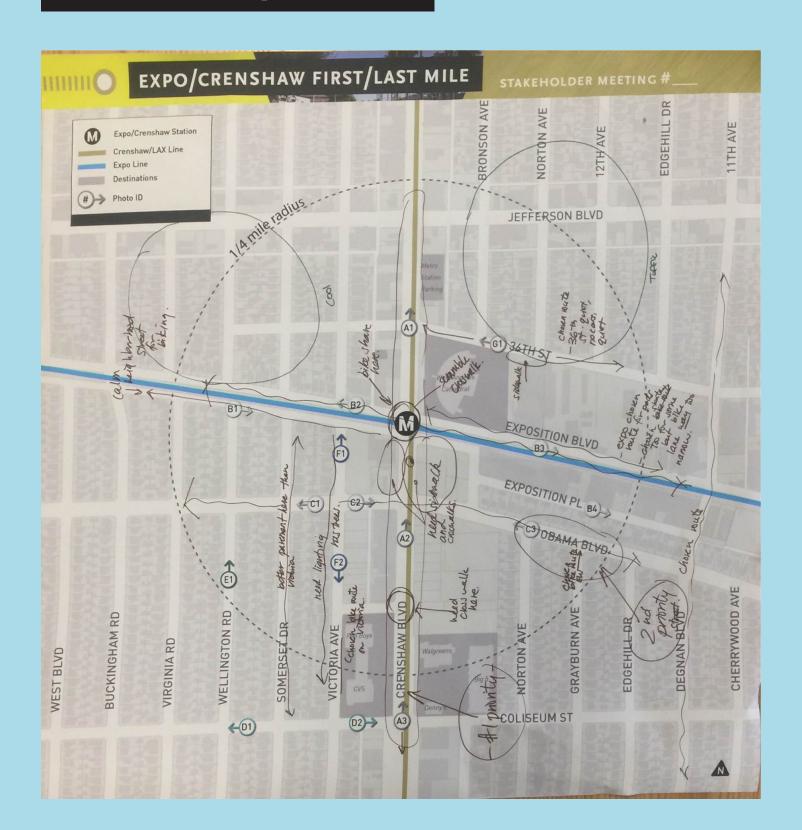
- 1. Add wayfinding parking garage to station
- Cvcle track
- Incorporate trees, landscaping, & bioswales
- Be sure to coordinate with Destination Crenshaw. Also consider cool pavement.
- 5. Technology at bus stops (e.g. real time, etc.)
- 6. Scramble crosswalk
- 7. Permeably paved, shared-street (Woonerf)
 See South LA Annenberg Paseo as

- 8. Sharrow
- Unused space here could be used for parklets or public space
- 10. Good bike route option to and from station
- 11. Neighborhood-scaled traffic circles
- 12. Great potential regional bike connection (and better than Obama)
- 13. Greenway
- 14. Do not take away parking in residential areas

- Crosswalk enhancements, corner bulbouts, and pedestrian lighting on all residential streets
- 16. Enhance crosswalks adjacent to schools and big apartment buildings
- Ability to cross tracks for pedestrians and bicyclists
- Transform Exposition Blvd into a Complete Street. Consider Leading Pedestrian Intervals.
- 19. Buffered/protected bike lane. Can part of Metro setback area be used for bike lane? Some people also suggest a cycle track.
- 20. Add wayfinding and improve signal timing
- 21. Beautification generally needed



Youth Group Notes

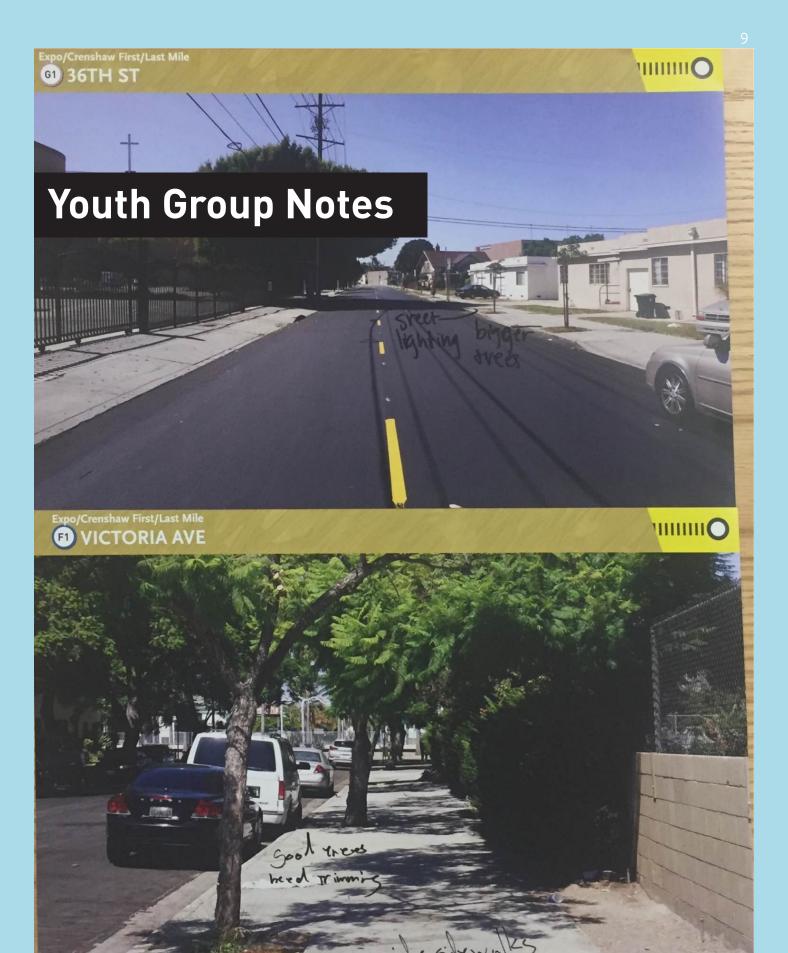


Youth Group Notes

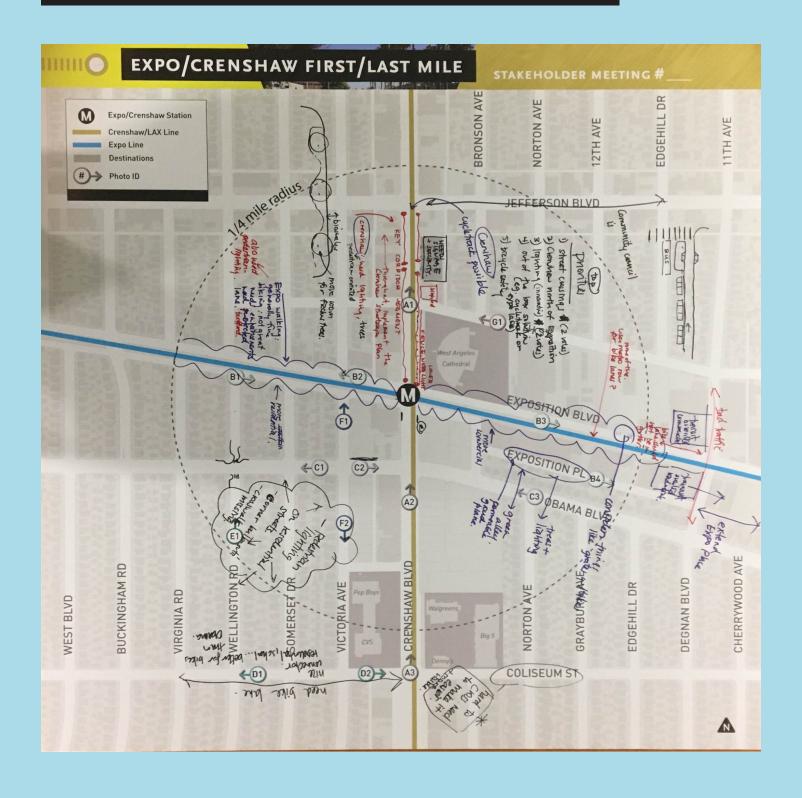


Youth Group Notes

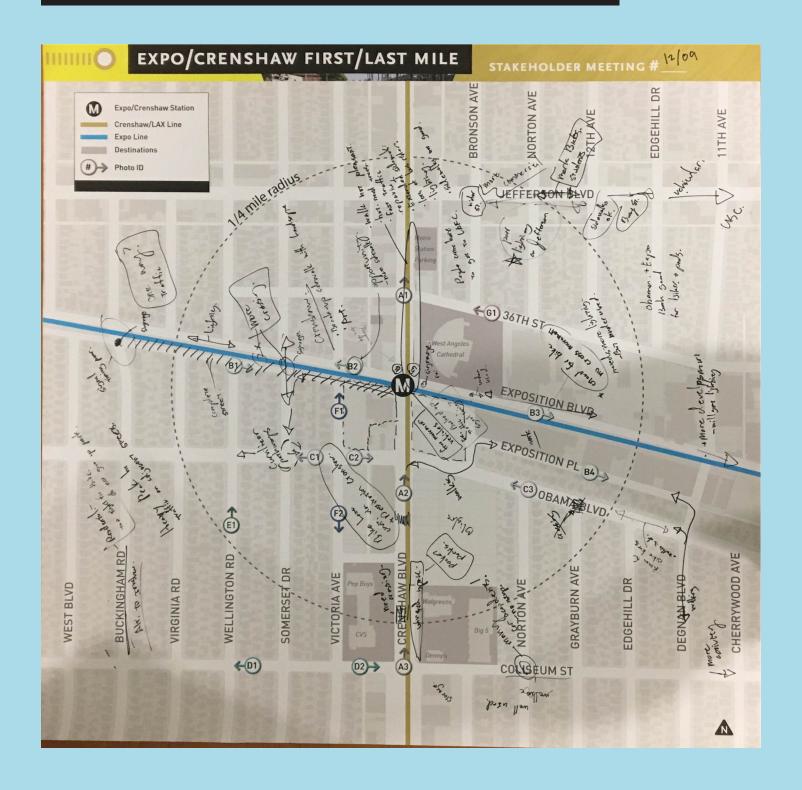
[] ligvits. crenshaw = active but not good for 3 general need wider bike lanes. very busy cool pavement very wide. Sheed trees + landscaping. enhanced curroulles mid black country. · need title lanes · cycle track technology... speed radair, touch streen wayfinding maps, next was, next train stg nage.



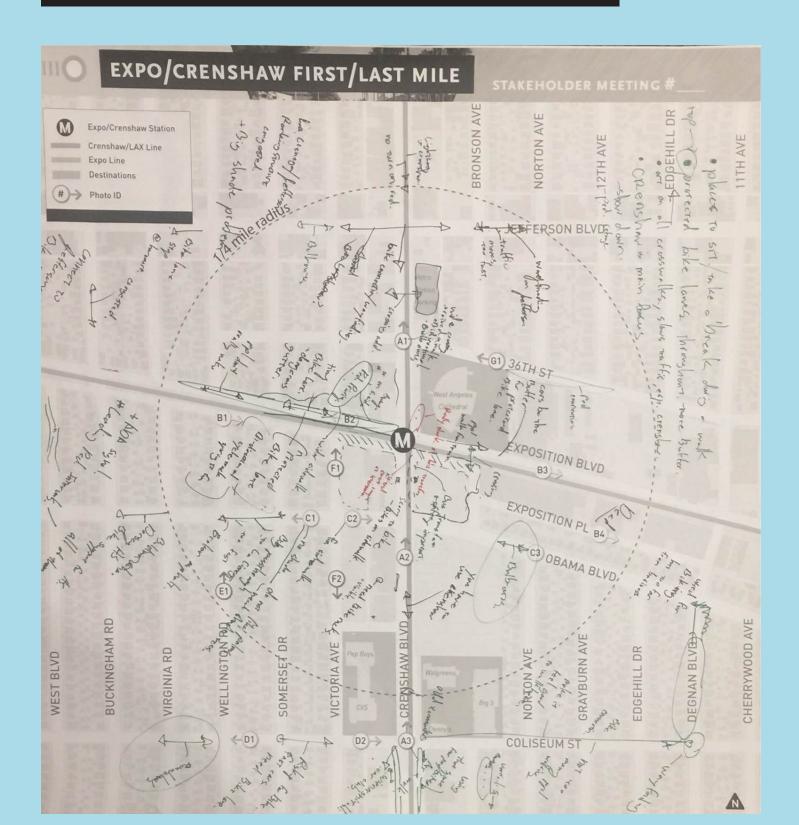
Neighborhood Affiliate Notes



Neighborhood Affiliate Notes



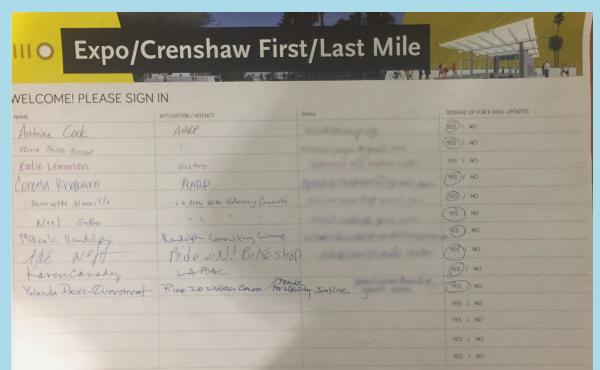
Bike & Ped Advocate Notes



Bike & Ped Advocate Notes



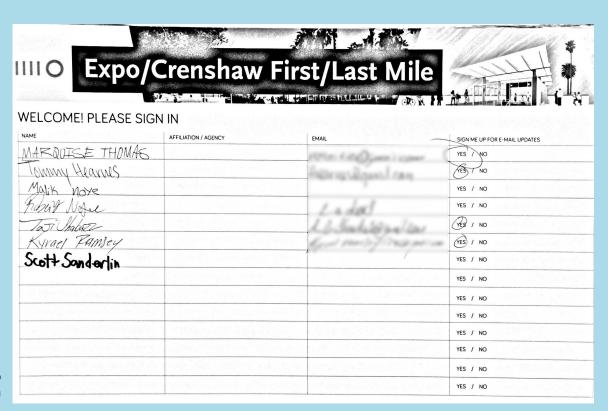
Sign in Sheets



Pedestrian and Bicycle Advocates Sign In

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WELCOME! PLEASE SI	GN IN		
NAME	AFFILIATION / AGENCY	EMAIL	SIGN ME UP FOR E-MAIL UPDATES
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Jeresa Humphrey	Baldwin Hills Estates HOA	COLUMN TO SERVICE	A- NES) I NO
Tisha Greene	Baldwin Hills Estates HOA		YES / NO
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LAURA MOTORS	UNNO		YES / NO
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			YES / NO

Neighborhood Affiliates Sign In



Youth Group Sign In

Community Voices EXPO/CRENSHAW POP-UP SUMMARY

Overview

CONTEXT

As part of the Expo/Crenshaw First/Last Mile (FLM) Plan, Metro held a pop-up community event to gather feedback on desired FLM improvements. The event was held at the Crenshaw Farmers Market on Saturday, February 29, 2020.

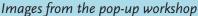
The goals of the pop-up were to introduce the FLM project to community stakeholders and gather feedback to prioritize FLM improvements within the 1/4 mile around the new Expo/Crenshaw station.

HOW THE ACTIVITY WORKS

To incite passerby curiosity and reduce barriers to engagement, the activity created a playful atmosphere, using oversized "Connect 4" game boards as the feedback mechanism. To begin, participants were given a brief primer on the scope and goals of the project, and the principles and objectives of FLM planning. They were then shown a menu of potential FLM improvements and instructed to choose the three streets they felt needed the most improvements. Finally, participants placed a feedback chip with their desired improvement on their selected street. Participants could also suggest improvements by writing their idea on a blank feedback chip. When feedback on a street filled the Connect-4 boards, the chips were recorded and then emptied. Participants were offered a free day pass TAP card and other Metro giveaways for their participation. Over 20 people participated in the pop-up.















POP-UP RESULTS

141 improvements

were suggested during the pop-up

Number of comments by street

Crenshaw Blvd - 49 Obama Blvd - 25 Jefferson Blvd - 18 Exposition Blvd - 14 Coliseum St - 10 Exposition Pl - 5 Buckingham Rd - 2 General Area - 18

Number of comments by improvement

Landscaping/Shade - 18
New or Improved Crosswalks - 14
Pedestrian & Bicycle Lighting - 14
Bike Facilities - 13
Bus Stop Improvements - 12
New or Improved Sidewalks - 11
Street Furniture - 9
Wayfinding Signs - 8
Bulbouts at Corners - 7
ADA Access Ramps - 7
Traffic Calming - 6

KEY FEEDBACK

Crenshaw Blvd was the clear focus of participants' feedback, the majority of which focused on the need for pedestrian improvements. Improvements to crosswalks, sidewalks, and landscaping/ shade were noticeably sought after. Participants also indicated support for other safety and comfort improvements such as bulbouts, street furniture, wayfinding, lighting, and bus stop improvements. Finally, there was support for a bike facility on Crenshaw Blvd that would create a much-needed north-south bike connection to the rail station.

Obama Blvd was the secondmost commented-upon street. Its feedback pointed to both its current needs and future potential. Participants indicated this street as a possibility for an east-west bike connection. They also envisioned a more pedestrian-friendly street by supporting new crosswalks for increased crossing opportunities and traffic calming measures for reduced vehicle speeds. Other pedestrian amenities were prioritized, namely landscaping/shade, street furniture, improved sidewalks, improved ADA access ramps and pedestrian & bicycle lighting.

Jefferson Blvd was the third-most commented-upon street. Participants identified that the street needs pedestrian amenities to serve a high volume of transit users. Improvements to landscaping/shade, pedestrian & bike lighting, bus stop amenities, and wayfinding signage were requested to aid this population. Additionally, participants saw an opportunity for a safe eastwest bike connection.

Exposition Blvd was seen as needing improved pedestrian amenities. Pedestrian & bike lighting, wayfinding signs, landscaping/shade, and improved sidewalks were the focal improvement categories.

Coliseum St was indicated as needing ADA access ramps, as ramps are not present at certain intersections. Participants also identified bulbouts as another intersection treatment to improve this street.

Exposition PI received single comments in the traffic calming, landscaping/shade, street furniture, wayfinding, and lighting categories but offered no clear consensus on a recommendation for the street.

Buckingham Rd was indicated as needing traffic calming measure to reduce vehicle speeds.

April 3, 2020





Write-in comments from participants

Participants added comments that could be applied to the entire study area or that were outside of FLM planning's purview. Participants indicated a desire for:

- Auditory walk signals
- Flashing crosswalk beacons
- Speed bumps are too low and not effective
- Bike share throughout the area
- Sidewalk improvement on residential streets, not just arterial streets
- FLM planning that incorporated the needs of seniors
- To bring back places to sit at existing bus stops
- Driver education that puts a priority on pedestrian and bicyclist safety
- More security officers

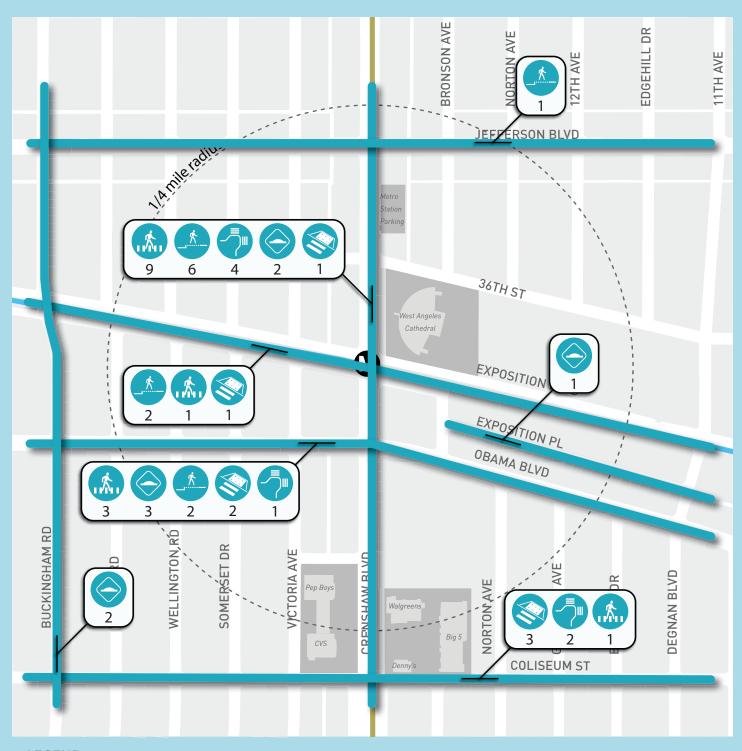
Participants shared comments pertaining to areas outside of the study area as well. Participants let us know that:

- Scramble crosswalks should be utilized at major intersections near the MLK Jr., Hyde Park, Downtown Inglewood, LAX and Leimert Park stations
- Adams Blvd needs improved sidewalks and crosswalks
- Marlton Ave needs trees and benches
- La Cienega Blvd needs lighting near the station and on the street
- Stocker St needs benches and trees

FEEDBACK MAPS

The next pages display maps showing the improvements divided into two categories, one addressing Safety, the other addressing Comfort. There are callouts on the maps showing the number of feedback chips a street received for a particular improvement.

Safety Improvements



LEGEND



New or Improved Crosswalks



Bulbouts (curb extensions)



ADA Access Ramps



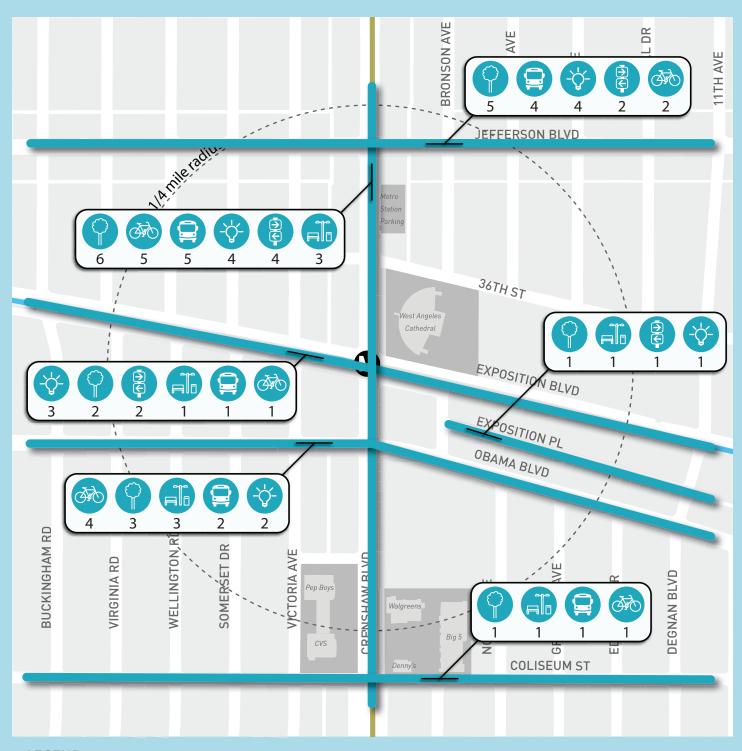
New or Improved Sidewalks



Traffic Calming

Number-#offeedbackchips

Comfort Improvements



LEGEND



Street Furniture



Bus Stop Improvements



Bike Lane, Route, or Facility

Number-#offeedbackchips



Landscaping & Shade



Wayfinding Signs



Pedestrian & Bike Lighting

Images



Coliseum St & Crenshaw Blvd (1/3)



Coliseum St & Crenshaw Blvd (3/3)



Obama Blvd & Exposition Pl (1/2)



Coliseum St & Crenshaw Blvd (2/3)



Exposition Blvd & Jefferson Blvd (1/1)



Obama Blvd & Exposition Pl (2/2)

April 3, 2020 7

Survey Summary

Top 3 streets that need improvements:

- Crenshaw Blvd
- Obama Blvd
- Exposition Blvd

WHAT ARE THE TOP **IMPROVEMENTS NEEDED IN** THE STUDY AREA?*

(209)



Landscaping & Shade



New or improved crosswalks







Bike lane, route, or facility





New or widened sidewalks





Bus stop improvements



ADA access ramps



Street furniture

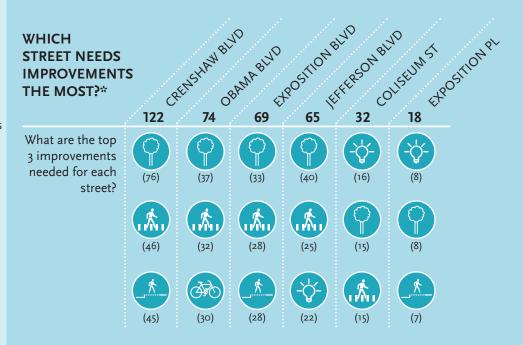


Corner curb extensions

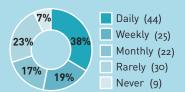


Wayfinding signs

The purpose of the online survey was to allow additional community members to have a chance to share their thoughts regarding improvements needed around the Expo/Crenshaw station. The survey aligns with the questions asked during the pop up; gathering feedback to help prioritize FLM improvements within the 1/4 mile around the Expo/Crenshaw station. The survey, which was online for 3 weeks, was distributed via Metro social media, listserves, and through community members and organizations who had previously participated in stakeholder roundtable meetings. Respondents submitted 130 survey entries. 72% of respondents reported that they live within the study area. Key takeaways from the survey are summarized below.



HOW OFTEN DO PEOPLE USE THE BUS OR RAIL SYSTEM?



WHAT DRAWS PEOPLE TO THE STUDY AREA?

(Participants could select more than one answer)



^{*}Participants chose the top three streets that need improvement, and chose the top three improvements for their top three streets. Numbers show total entries for each street and improvement.