

DRAFT

BEVERLY HILLS

COMPLETE STREETS PLAN



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EXECUTIVE SUMMARY

Through implementation of the Complete Streets Plan, the City aims to transform Beverly Hills from an auto-dominated community to one that embraces all modes of travel, reduces vehicle trips on our streets, and can be truly considered a world class bicycling city. The plan identifies a vision for the transportation network, guided by multi-modal goals and policies.

The City intends for the Complete Streets Plan to be a long-range document providing the City's overall transportation policy guidance. As a supplement to the Complete Streets Plan, the Complete Streets Action Plan is a separate short-term implementation plan that details the steps the City intends to take to implement priority projects, and will serve as a working document to be updated as projects and tasks are completed.

Both documents are the result of the dedication and commitment of Beverly Hills' Traffic and Parking Commissioners, City Council, local mobility advocates, and community stakeholders whose vision guided the development of these transformative documents. Input and feedback that informed the plan has been gathered in a variety of formats, including:

- Via an online survey, which received 250 unique responses
- Through a variety of different events: Three public workshops, a pop-up event at the Farmers' Market, and a walk audit. Each event was attended by between 20 and 60 people.
- Via the comments feature of the project website (www.beverlyhills.org/completestreets), which received 65 comments/sign-ups for updates throughout the planning process
- Via the comments feature of the Draft Plan, which received almost 200 total comments

COMPLETE STREETS PLAN RECOMMENDATIONS

The Complete Streets Plan presents goals and policies to guide the use and support the installation of safe, convenient, and environmentally-friendly transportation infrastructure in the city. Goals and policies, as well

EXECUTIVE SUMMARY

as infrastructure and programmatic recommendations, are organized by mode: Bicycling, walking, taking transit, and driving.

BICYCLING IN BEVERLY HILLS

The vision of the recommended bikeways in Beverly Hills is a holistic network that prioritizes accelerated installation of key east-west and north-south bicycle facilities to provide access to schools, parks, commercial areas, Metro Purple Line stations, and existing bikeways. The proposed network includes Class II bike lanes, Class IV protected bike lanes, and Class III bike boulevards. Additional recommendations include support infrastructure like more bike parking and encouragement programs such as Safe Routes to School and open streets events.

WALKING IN BEVERLY HILLS

Recommended priority corridors for pedestrian improvements in the city include (1) streets with destinations that attract pedestrian activity, like retail and office space, but need upgrades to make them more pedestrian-friendly and (2) streets where the City has received grants for new crossings. Implementing streetscape upgrades to commercial corridors outside the core streets in the Business Triangle could expand the walkability of Beverly Hills citywide by beautifying streets, improving safety, and enhancing crossings. Treatments that can be applied include landscaping, pedestrian lighting, transit shelters, curb extensions, and outdoor gathering spaces, like parklets. In addition, the plan includes a new crosswalk policy to guide the installation of new, uncontrolled pedestrian crossings, and recommends events like “pedestrian only” days to encourage walking.

TAKING TRANSIT IN BEVERLY HILLS

Improving bus stops will dramatically improve the transit rider experience in Beverly Hills and is an important first step in implementing first/last mile connections to the future Metro Purple Line stations. Other recommended first/last mile improvements include a Mobility Hub at the Wilshire/La Cienega station, a northern entrance to the Wilshire/Rodeo station, and an autonomous shuttle that provides access to the stations. Transit operations could be enhanced through infrastructure like floating bus islands and bus only lanes. In addition, the City can encourage increased ridership through programs and policies to incentivize taking transit.

DRIVING IN BEVERLY HILLS

Recommendations to enhance vehicle infrastructure are aimed at (1) making the roadways more efficient for drivers through improvements to major corridors and (2) making neighborhoods more livable through neighborhood traffic management and safer streets. Congestion can be improved through infrastructure and policies, such as better management of curbsides, appropriate parking prices, neighborhood car share, and an updated Transportation Demand Management ordinance. New collision management software will help improve roadway safety by allowing for better collision tracking and reporting.

ACTION PLAN RECOMMENDATIONS

The Complete Streets Action Plan prioritizes recommended and ongoing projects for implementation in the first six years after plan adoption, prior to the opening of the Metro Purple Line stations in 2023 (Wilshire/La Cienega) and 2025 (Wilshire/Rodeo). It is divided into four sub-action plans – Bicycle Action Plan, Pedestrian Action Plan, Transit Action Plan, and Vehicle Action Plan – in order to effectively monitor progress toward meeting the goals and objectives for each mode as outlined in the Complete Streets Plan.

The Action Plan will serve as a working document to be updated as projects and tasks are completed. The City plans to conduct a comprehensive review approaching the end of the six-year timeline and reprioritize as needed during the next five years.



1. INTRODUCTION

The City of Beverly Hills is located in west-central Los Angeles County in the middle of a high-density travel corridor between Downtown Los Angeles and the City of Santa Monica. The city encompasses roughly 5.7 square miles and was documented in the 2010 U.S. Census with a population of approximately 35,000 residents¹; during the day, however, the number of people in the city climbs to between 150,000 and 200,000 as Beverly Hills is a major regional employment hub and tourist destination. Beverly Hills has one of the highest densities of population and employment in Los Angeles County² and produces high volumes of vehicle, bus transit, and pedestrian traffic along arterial and local streets. As the city is mature and largely built-out, the provision of bigger and wider roadways is not a feasible option to improve mobility or reduce congestion.

As part of the fiscal year 2016/2017 City Council Priority Exercise, the City Council identified the preparation of a Bicycle Mobility Plan as the first step in developing a citywide mobility plan. On May 4, 2017, the City Council/Traffic and Parking Commission Liaison Committee supported expanding the scope of the Bicycle Mobility Plan to a “complete streets” approach that includes a comprehensive analysis of pedestrian, bicycle, and street networks, and emerging transportation modes and technologies, such as automated vehicles. Subsequently, the complete streets program became a priority in the City’s annual budget. The Beverly Hills Complete Streets Plan focuses on utilizing creative methods of re-purposing existing roadways and streetscapes to offer more diverse mobility options and increase access to the many destinations the city has to offer.

¹ <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

² https://www.transit.dot.gov/sites/fta.dot.gov/files/CA__Los_Angeles_Westside_Purple_Line_Extension_Section_2_Profile_FY16.pdf

WHAT IS THE PLAN VISION?

Streets define communities; those that support walking and bicycling facilitate social interaction, improved public health, increased tourism, better access, and a more efficient transportation system, which increases the number of people that can travel on our streets without increasing congestion. Through implementation of the Complete Streets Plan, the City aims to transform Beverly Hills from an auto-dominated community to one that embraces all modes of travel, reduces vehicle trips on our streets, and can be truly considered a world class bicycling city. This plan envisions a future where students can bike to school, families can take transit to their destinations, people of all ages can walk to neighborhood amenities, and the Beverly Hills community is a model for other jurisdictions.



The Complete Streets Plan is critically important to preserving the health and wellbeing of current and future generations, as we have reached a point where the status quo is no longer feasible. Streets are operating at capacity, creating longer and longer travel times. More time spent in vehicles has reduced time spent being active, contributing to diseases and health concerns associated with inactivity. Fossil fuel use has led to what could be irreversible climate change if not immediately corrected. Implementing the recommendations in this plan creates opportunities to help reverse these impacts.

The plan presents the community's priorities in achieving this vision so that residents, employees, and visitors of Beverly Hills will have more car-free options for getting where they need to go. The vision of this plan is ambitious and transformative, while recommending changes that are realistic to pursue over its lifetime through a detailed action plan.

At the start of the planning process, the City held a kick-off community workshop and distributed an online survey to hear the community's thoughts on values that should guide the development of the Complete Streets Plan, which are listed as follows. These values were used to develop the plan goals and policies presented in **Chapter 3**.

- Enhance safety for roadway users of all ages and abilities
- Improve the overall quality of life in Beverly Hills
- Improve traffic flow for all roadway users
- Improve the environmental health and sustainability of Beverly Hills
- Increase and diversify transportation choices
- Emphasize equitable travel options that legitimize all modes

WHAT IS A COMPLETE STREET?

There is no one-size-fits-all definition of a Complete Street, rather, it is a design approach that integrates people and places in the planning, design, construction, operation, and maintenance of our transportation networks. This results in a connected system where certain streets prioritize different modes of travel – not every street can prioritize all modes, but each mode can have a holistic network that increases accessibility for people of all ages and abilities; balances the needs of different travel options; and supports local land uses, economies, cultures, and natural environments.

Complete Streets and the tools they employ have been proven to yield positive economic, environmental, and public health and safety benefits. Complete Streets provide greater access to businesses, improve transportation options, increase physical activity, create new space for plantings and street trees, and holistically improve community livability. The pages that follow explain how these concepts can be put to work for Beverly Hills.



WHAT DOES THE PLAN DO?

Complete Streets Plans are long-range planning documents that set the stage for how jurisdictions design and implement transportation projects. They identify a vision for the transportation network, supplemented by goals and policies that guide transportation projects to be in line with the vision. By adopting a Complete

Streets Plan, jurisdictions formally commit to the types of projects they will pursue and allow to be built, and identify potential corridors or neighborhoods to focus on.

The Beverly Hills Complete Streets Plan will provide a blueprint for transportation improvements that balance the needs of all road users: bicyclists, pedestrians, transit riders, and motorists. Once implemented, it will provide more options for people to choose the mode that best works for their trip type, and a network of streets where individual modes will be prioritized.

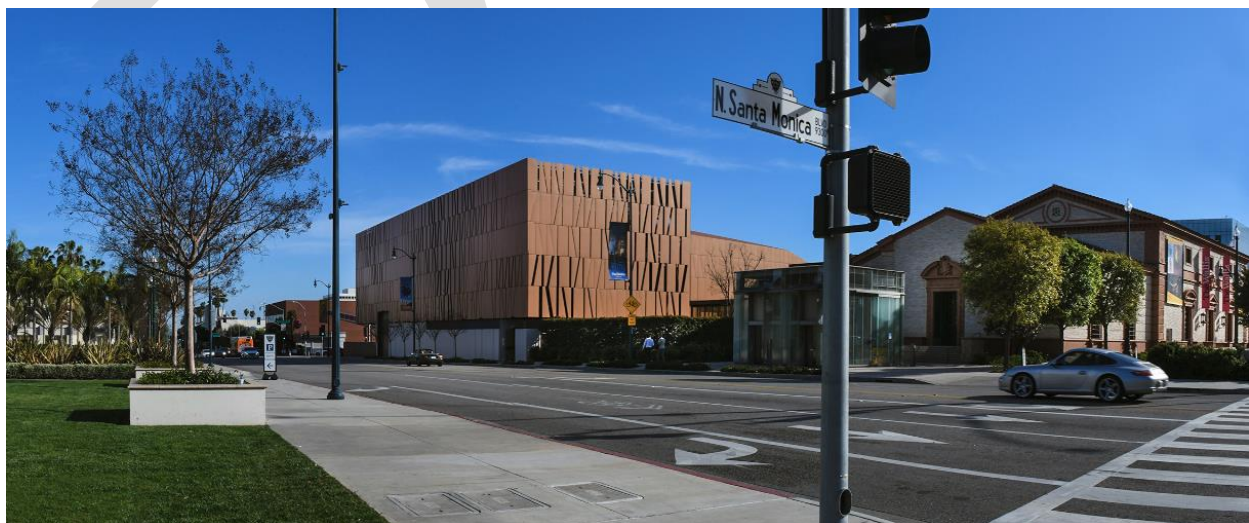
The types of improvements recommended in the Complete Streets Plan will (1) bring the City up to current mobility standards and best practices, such as by providing a comfortable on-street bicycling environment, and (2) prepare the City for emerging transportation trends. Recommendations include basic infrastructure not currently provided in Beverly Hills, infrastructure to enhance current facilities, and programs and policies to support mobility.

The plan has a focus on preparing for the opening of the future Metro Purple Line subway stations through recommendations for first/last mile connections, which includes development of policies for streetscape and street repair projects. Connections between the stations and major activity centers, such as retail centers, hotels, schools, parks, and the Civic Center, require a balanced street network designed and operated for all modes of travel.

Having an adopted Complete Streets Plan will make the City eligible for grant opportunities that provide funding for projects included in a transportation or mobility plan.

WHAT DOESN'T IT DO?

As a long-range policy document, the Complete Streets Plan does not prescribe specific locations for upgrades or design details. For example, the plan identifies the recommended bikeway network and types of bikeways for the City to pursue; however, because the exact roadway design requires many transparent conversations with adjacent neighbors and property owners the plan cannot dictate the specific changes that would be made. Instead, it provides a menu of recommended design features that should be explored and discussed with community stakeholders to find the best option for each unique street.



PLAN COMPONENTS

The Beverly Hills Complete Streets Plan is divided into:

- **Executive Summary:** Presents a high level overview of the Complete Streets Plan and Action Plan
- **Chapter 1 Introduction:** Provides an overview of the purpose of the document and plan components
- **Chapter 2 Community Input:** Feedback received that helped inform the goals, policies, and recommendations
- **Chapter 3 Complete Streets Policies:** Goals and policies to guide the use and support the installation of complete streets
- **Chapter 4 Bicycling in Beverly Hills:** Existing biking conditions and recommendations
- **Chapter 5 Walking in Beverly Hills:** Existing pedestrian conditions and recommendations
- **Chapter 6 Taking Transit in Beverly Hills:** Existing public transportation and recommendations
- **Chapter 7 Driving in Beverly Hills:** Existing street/neighborhood conditions and recommendations
- **Technical Appendices:** Policy review, best practices, emerging trends, design guidance, and public outreach summaries

COMPLETE STREETS ACTION PLAN

The City intends for the Complete Streets Plan to be a long-range document providing the City's overall transportation policy guidance. As a supplement to the Complete Streets Plan, the Complete Streets Action Plan is a separate short-term implementation plan that details the steps the City intends to take to implement priority projects, and will serve as a working document to be updated as projects and tasks are completed.

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2. COMMUNITY INPUT

The Complete Streets Plan process included a public outreach and engagement program to integrate community input into plan. Input and feedback was gathered in a variety of formats, including:

- Via the comments feature of the project website
- By developing a video that explains the concept of a “complete street,” available on the project website and broadcast on local TV
- Via an online survey, which received 250 unique responses
- Through five different events: three formal community workshops, a pop-up event, and a walk audit (attendance from all events totaled approximately 170 people)

Community feedback received has been used to shape the recommendations included in this plan and address key concerns brought up by community members.

To get the word out to as many stakeholders as possible, the City:

- Sent two citywide mailers, one at the beginning of the planning process and one to announce the release of the Draft Plan in April 2019
- Provided flyers at the Farmers’ Market, Roxbury and La Cienega Parks, the Library, and various locations around City Hall
- Promoted on the City website and through social media
- Provided information to the Courier and for inclusion in school newsletters

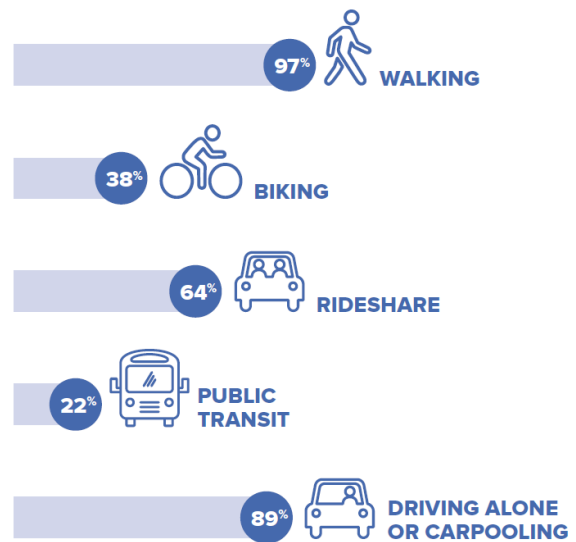
- Published in the City’s In Focus newsletter
- Distributed a press release
- Gave presentations, such as at the Chamber of Commerce, Metro construction meetings, and Metro business stakeholder meetings
- Provided copies of the Draft Plan for viewing at the City Clerk’s office and Roxbury and La Cienega Parks

ONLINE ENGAGEMENT

A project website (www.beverlyhills.org/completestreets) was established to serve as a central resource for project information. A comments tool on the website provided another forum for community members to share feedback. 65 people commented or signed up for project updates via the website.

An online survey, available from March - July 2018, collected feedback from 250 respondents. The goal of the survey was to learn more about how community members feel about the way Beverly Hills’ streets and networks function today, how they are using the street, and to gather input about how roadways might function differently in the future. Respondents were asked questions about each modality: walking, biking, public transit, vehicles, and the role of new/emerging technologies. Several major themes emerged from the survey, as well as the in-person events and workshops, discussed below. **Figure 2-1** shows how survey respondents are currently traveling in Beverly Hills and a summary of results is shown in **Figure 2-2**.

Figure 2-1: Survey Respondent Travel Modes



EVENTS AND WORKSHOPS

Approximately 170 total people participated in one of three workshops, a walk audit, and a pop-up workshop held from March to July 2018. Feedback was gathered at each event, as shown in **Table 2-1** below. Additional details are included in **Appendix E**.

Table 2-1: Outreach Events and Workshops

EVENT	DATE	PURPOSE
Workshop #1	March 12, 2018	Established the project goals and values
Pop-up Workshop (Beverly Hills Farmers’ Market)	April 15, 2018	Gathered feedback on initial bike network map concepts; asked participants to prioritize different bikeway types
Workshop #2	May 30, 2018	Introduced draft maps for each of the four key modalities (walking, biking, transit, and vehicles); participants broke out into small working groups to review and comment
Walk Audit	June 9, 2018	Led participants along two routes: <ul style="list-style-type: none"> • South Santa Monica Boulevard from Crescent Drive to Roxbury Drive

EVENT	DATE	PURPOSE
		<ul style="list-style-type: none"> • South Crescent Drive between South Santa Monica Boulevard and Wilshire Boulevard, continued to Reeves Drive
Workshop #3	August 22, 2018	Presented draft plan progress, including options for 4 different corridor segments throughout the city



The first community workshop, held on March 12, 2018 and attended by approximately 40 people, centered on establishing guiding values and goals for the Complete Streets Plan. Meeting facilitators asked participants to select a word to describe Beverly Hills streets in the present and in the future. The most common words selected suggested an emphasis on cars, such as “congested,” “speeding,” and “traffic.” The most common word selected describe the future was “safe.” Additionally, participants expressed a desire for design recommendations that will promote/maintain the City’s “village” atmosphere; to consider diverse user groups including tourists, visitors, and businesses; and to facilitate the need for coordination with adjacent cities during plan implementation.

On Saturday, April 15, 2018, approximately 40-60 community members stopped by the Beverly Hills Complete Streets Plan booth at the City’s Earth Day event. Booth participants said the top ways they would improve mobility in Beverly Hills were through improved pedestrian, vehicular, and bicycle networks, and traffic calming. Their top priorities for complete streets elements were crossing warning devices, bike lanes, and traffic calming, followed by crosswalks/raised crosswalks and green infrastructure.

Approximately 20 community members attended the second workshop for the Beverly Hills Complete Streets Plan on Wednesday, May 30, 2018. The focus of the workshop was to identify priority corridors and to make network recommendations that would be used to guide the plan. Several common themes emerged throughout the workshop:

- Support of/interest in a shuttle route
- Desire for improved crosswalks
- Challenging biking conditions at Crescent Drive and Wilshire Boulevard, on Sunset Boulevard, and on Rodeo Drive
- Improved bicycle amenities including green bike lanes, protected bike lanes, and bike parking
- A need for enhanced pedestrian safety along Gregory Way, Olympic Boulevard, and Beverly Drive
- Use of traffic calming measures on Wilshire Boulevard and Olympic Boulevard

On Saturday June 9, 2018, approximately 25 community members attended a walk audit to study firsthand how streets in Beverly Hills could be improved. The first group walked along Crescent Drive between South Santa Monica and Wilshire Boulevards, and the second group traveled along South Santa Monica Boulevard between Crescent Drive and Roxbury Drive. Participants were then asked to identify issues for pedestrians, bicyclists, drivers, and transit users along their respective routes and to offer suggestions for improvement.



Figure 2-2: Online Survey Feedback Summary



Approximately 25 community members attended the third workshop for the Complete Streets Plan on Wednesday, August 22, 2018. The consultant team delivered a presentation summarizing draft plan progress, which included potential network maps for walking, biking, transit, and vehicles. Following a brief Q and A session, participants were invited to circulate around the room to review the potential network maps up close and provide suggestions, summarized below:

- Intersection improvements at Rexford Drive/Charleville Boulevard
- Pedestrian bridge on La Cienega Boulevard between Olympic Boulevard and Gregory Way
- Street trees on Olympic, Wilshire, and Robertson Boulevards to improve aesthetics
- Wider sidewalks for outdoor dining, such as through revised building set-backs
- Parking-protected bike lanes
- Bikeways on Gregory Way and Doheny Drive
- Reduced fare for the bike share program
- Bicycle training classes
- Transit stop amenities, including benches, shaded areas, and trash bins
- Bus lanes
- Higher capacity buses and north/south bus routes (not within City jurisdiction)
- Parking structures and kiss-and-ride facilities at the future Metro Purple Line stations
- Left turn restrictions

ROLE OF THE TRAFFIC AND PARKING COMMISSION

Throughout the course of this project, the plan has had a standing agenda item at the monthly meetings of the Beverly Hills Traffic and Parking Commission (TPC), which has served as an advisory body for the project. City and Consultant staff involved in the project presented to the TPC on a monthly basis, and these meetings provided an additional opportunity for public comment and input.

On January 10, 2019, the Traffic and Parking Commission participated in a study session facilitated by the consultant team to discuss if the plan was moving in the right direction, if anything was missing from a list of preliminary projects, and what should be prioritized for short-term implementation. Input from this meeting was used to finalize the draft plan and the recommendations for priority projects.

The Draft Plan was released from April 10, 2019 through May 17, 2019 for public review. A summary of comments and responses is included in **Appendix E**. On May 8, 2019, the Traffic and Parking Commission hosted a special meeting to receive community input on the Draft Plan and make a recommendation to City Council on plan adoption; the TPC recommended 5-0 that City Council adopt the plan. At a TPC/City Council Liaison Meeting on June 12, 2019, the Liaisons requested that more detail on project implementation be included prior to presenting to the City Council, which led to the development of a Complete Streets Plan with policy recommendations broken out by mode and a supplemental Complete Streets Action Plan with implementation details.

*Designated, high-visibility areas for walkers and bicyclists will help drivers pay attention to them. **Once safety increases, more people will do it and there will be a snowball effect.***

– SURVEY PARTICIPANT

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3. COMPLETE STREETS POLICIES

This chapter presents recommended policies that support Complete Streets efforts in the City of Beverly Hills. They are separated into bicycle, pedestrian, transit, and vehicle policies, and are intended to guide the use and support the installation of safe, convenient, and environmentally-friendly transportation infrastructure in the city. These policies inform the plan recommendations in the following chapters and are translated into specific, detailed priority projects in the Complete Streets Action Plan. City, County, and State plans and policies reviewed to inform the Complete Streets Plan policies are discussed in **Appendix A**.

Table 3-1: Complete Streets Policies

Bicycle Policies
Goal B1: Provide a Safe and Efficient Bicycle Circulation System Within the City
B1-1: Reduce collisions involving bicyclists through improved street design
B1-2: Increase the visibility of bicyclists with designated bikeways and intersection treatments
B1-3: Prioritize the implementation of “low-stress” bikeways that provide a comfortable, less stressful experience and minimize conflicts between bicyclists and motorists
B1-4: Minimize gaps in the bikeway network
B1-5: Support enforcement of driving behaviors that lead bicyclists and related mobility device users to feel unsafe
B1-6: Establish baseline information concerning traffic safety, such as collision data, and develop evaluation/performance metrics

Bicycle Policies
B1-7: Adopt model bikeway/street design guidelines, such as those produced by the National Association of City Transportation Officials (NACTO)
B1-8: Explore establishment of a ticket diversion program to educate bicyclists and related mobility device users on traffic laws
Goal B2: Provide a Holistic and Connected Bicycle Network
B2-1: Identify and implement high quality bikeways on primary east-west and north-south corridors in the short-term
B2-2: Prioritize the implementation of bikeways that connect key community nodes: Schools, parks, commercial districts, and Metro Purple Line stations
B2-3: Provide a variety of bikeways that are attractive for all types of riders and minimize conflicts between bicyclists and motorists
B2-4: Implement and encourage bikeway connections with neighboring jurisdictions to facilitate regional bikeways
B2-5: Use creative methods to install dedicated bike lanes in constrained rights-of-way, such as through innovative facilities or parking/street reconfiguration
B2-6: Include progressive and innovative support infrastructure in bikeway projects, such as bike boxes, intersection treatments, colored paint, and signal upgrades
B2-7: Explore opportunities where land dedication may be required for first/last mile connections
B2-8: Require new development projects on existing and potential bikeways to facilitate bicycle and pedestrian access to and through the project
B2-9: Promote the health of residents by developing streetscapes, bikeways, accessible parklands that encourage pedestrian activity
B2-10: Explore the feasibility of shared bus/bike combination lanes on transit corridors, including Wilshire Boulevard
B2-11: Explore demand for a permitting process for shared use mobility devices and create standards/guidelines
Goal B3: Expand Bike Parking
B3-1: Identify locations for and install new short-term bike racks on commercial corridors along sidewalks and/or as “bicycle corrals”
B3-2: Support installation of long-term secure bike parking on Metro property at Metro Purple Line stations
B3-3: Provide Mobility Hubs with long-term bike parking and bicyclist amenities at key destinations
B3-4: Encourage the installation of covered and secure long-term bike parking at major employers and community destinations
B3-5: Provide secure bike parking at community events, such as through bike valet
B3-6: Explore/encourage opportunities for automated bicycle parking facilities
B3-7: Develop a bike parking ordinance commensurate with best practices that requires the installation of bike parking and shower/changing facilities on private property
B3-8: Develop bike parking facilities standards/guidelines for the public right-of-way
Goal B4: Support and Encourage Bicycle Transportation
B4-1: Host education and awareness events for bicyclists and other road users about traffic regulations and sharing the road
B4-2: Implement a local open streets event, like Santa Monica’s COAST or Culver City’s Art Walk and Roll Festival, that can be expanded to occur annually
B4-3: Participate in regional or multi-jurisdictional open streets events, like CicLAvia

Bicycle Policies

- B4-4: Partner with local bicyclists to monitor and evaluate new infrastructure
- B4-5: Identify potential Bicycle Friendly Business Districts and develop standards/guidelines
- B4-6: Support interdepartmental City efforts to prioritize bicycle travel and safety
- B4-7: Identify and explore partnerships to promote bicycling, such as with the Los Angeles County Bicycle Coalition and the Beverly Hills Unified School District
- B4-8: Partner with the Beverly Hills Unified School District to support school access and encourage the provision of on-site bike parking
- B4-9: Support inclusion of active-transportation in the Sustainable City Plan update
- B4-10: Establish a Safe Routes to School program
- B4-11: Create a Mobility Coordinator staff position
- B4-12: Offer bicycle education trainings to City employees

Pedestrian Policies

Goal P1: Improve Pedestrian Safety

- P1-1: Reduce collisions involving pedestrians through improved street design
- P1-2: Design and maintain sidewalks, streets, and intersections to emphasize pedestrian safety and comfort through a variety of street design and traffic management solutions
- P1-3: Adopt the Crosswalk Policy developed as part of this planning process
- P1-4: Upgrade existing crosswalks to high visibility, continental crosswalks
- P1-5: Enhance new and existing crosswalks with supplemental treatments to make pedestrians more visible
- P1-6: Shorten pedestrian crossings, such as through curb extensions or refuge islands, where such treatments would not impede or preclude active-transportation facilities
- P1-7: Support enforcement of driving behaviors that lead pedestrians to feel unsafe
- P1-8: Establish a Safe Routes to School program
- P1-9: Collaborate with community groups to identify and implement needed and desirable improvements
- P1-10: Support Beverly Hills Police Department efforts to promote pedestrian safety

Goal P2: Make Walking a Desirable Travel Choice

- P2-1: Provide a continuous pedestrian network that connects buildings to each other, to the street, and to transit facilities
- P2-2: Create high quality sidewalks with appropriately sited seating, landscaping, pedestrian-scale lighting, and other streetscape amenities
- P2-3: Prioritize shade-giving trees or shade/urban cooling strategies to increase protection from heat
- P2-4: Reduce sidewalk obstacles and conflicts with other travel modes
- P2-5: Implement signal upgrades and technology enhancements to increase pedestrian mobility
- P2-6: Maintain accessibility through ADA-compliant infrastructure
- P2-7: Promote the health of residents by developing streetscapes, bikeways, accessible parklands that encourage pedestrian activity
- P2-8: Upgrade existing conditions in districts outside of the triangle

Goal P3: Enhance Sidewalks as Public Spaces

- P3-1: Expand seating areas and gathering spaces in the public right-of-way, such as through participation in PARKing Day or a parklet pilot program
- P3-2: Upgrade the City's wayfinding signage in commercial areas
- P3-3: Explore opportunities to create a "village" feel on key pedestrian corridors

Pedestrian Policies

P3-4: Host community events that utilize sidewalks and other public spaces, such as through participation in PARKing Day

P3-5: Promote sidewalks as active spaces that facilitate community interactions

Transit Policies

Goal T1: Provide First/Last Mile Connections

T1-1: Increase multi-modal access to transit stops and stations

T1-2: Create inviting station areas around the Metro Purple Line stations

T1-3: Explore on-street and off-street options to accommodate passenger loading at the Metro Purple Line stations

T1-4: Provide transit access for the maximum number of users

T1-5: Coordinate with Metro to implement projects identified in Metro's First/Last Mile Plan for the Wilshire/Rodeo station

T1-6: Explore demand for a permitting process for shared use mobility devices and create standards/guidelines

T1-7: Explore the feasibility of shared bus/bike combination lanes on transit corridors, including Wilshire Boulevard

Goal T2: Improve the Rider Experience

T2-1: Make bus stops more comfortable through the provision of seating, protection from weather, and other site furnishings like lighting, bike racks, and trash receptacles

T2-2: Use technology to provide real time information about when the bus/train is coming, Wi-Fi hot spots, and USB charging

T2-3: Make bus service faster and more reliable through installation of City infrastructure

T2-4: Encourage increased transit frequency from transit providers that operate in the city

Goal T3: Increase Transit Ridership

T3-1: Promote the use of bus and rail to residents, employers/employees, and visitors

T3-2: Participate in and promote programs and events, like Rideshare Week, that encourage taking transit

T3-3: Provide incentives to City employees to encourage commuting by transit

T3-4: Support and encourage regular surveying of transit riders to make adjustments to improve transit

Vehicle Policies

Goal V1: Reduce Traffic Congestion

V1-1: Encourage residents, employers/employees, and visitors to commute to work by modes other than driving alone

V1-2: Enable access to jobs, shopping, entertainment, services, and recreation by walking, bicycling, or taking public transit, thereby reducing automobile use, energy consumption, air pollution, and greenhouse gases

V1-3: Reduce single-occupant motor vehicle travel in the City through Transportation Demand Management

Vehicle Policies

V1-4: Shift travel from private passenger vehicles to alternative modes, including public transit, ride sharing, car-sharing, bicycling, personal mobility devices and walking

V1-5: Develop benchmarks and standards of success in shifting travelers to non-motorized modes

V1-6: Revise the Transportation Demand and Trip Reduction Measures ordinance to include best practices for the public and private sectors

V1-7: Explore establishment of a Transportation Management Association to implement the revised Transportation Demand and Trip Reduction Measures ordinance

V1-9: Implement policies and strategies to better manage and provide flexibility at the curb space

V1-10: Provide appropriately priced and sited parking to reduce circling

V1-11: Reduce or regulate demand for curb parking

Goal V2: Harness the Power of Data and Technology

V2-1: Improve traffic flow on arterial streets through technology enhancements

V2-2: Implement variable or dynamic parking pricing in commercial districts

V2-3: Prepare for emerging trends in transportation technology, including connected/autonomous vehicles

V2-4: Maintain a modern and up-to-date signal system

V2-5: Regularly increase the quality of available data for all travel modes to evaluate and inform projects

V2-6: Coordinate with the Beverly Hills Police Department's new collision management system to produce user-friendly reports on citywide collisions and trends

Goal V3: Support Safe, Complete, Livable, Sustainable, and Quality Neighborhoods

V3-1: Reduce citywide traffic collisions through improved street design and "Vision Zero" or similar strategies

V3-2: Slow vehicle speeds through traffic calming treatments on residential streets

V3-3: Consider support of efforts to revise State policy regarding how local jurisdictions can set speed limits

V3-4: Develop comprehensive neighborhood traffic control recommendations and a neighborhood traffic calming toolbox

V3-5: Investigate the feasibility of creating special assessment districts to fund improvements for neighborhood traffic management

V3-6: Incorporate improving traffic safety into any discussion about the general health and well-being of the City

V3-7: Reduce cut-through traffic in residential neighborhoods

V3-8: Minimize traffic impacts associated with Metro Purple Line construction

V3-9: Reduce pollution and emissions associated with driving to improve air quality

V3-10: Plan for large-scale use of Green Streets to better connect neighborhoods, use the public right of way, and enhance livability

V3-11: Develop a Green Streets pilot program to test-drive sustainable infrastructure components

V3-12: Seek to incorporate Green Streets facilities into all development, redevelopment, or enhancement projects

V3-13: Implement the City's new Vehicle Miles Traveled (VMT) thresholds

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4. BICYCLING IN BEVERLY HILLS

This chapter describes existing bicycling conditions in Beverly Hills, how the community suggested improving the bicycling environment, opportunities and challenges for expanding bicycling, and recommended bicycle infrastructure and programs. Priority bikeway projects the City intends to pursue in the next six years are detailed in the Complete Streets Action Plan.

WHERE WE ARE TODAY


EXISTING BIKEWAYS

Understanding existing bicycling conditions in Beverly Hills helped to inform where bikeway improvements are recommended and what types of programs and support amenities the City should pursue. **Table 4-1** and **Figure 4-1** identify the locations of existing bikeways in Beverly Hills. Caltrans identifies four classifications of bikeways (described in **Table 4-1**): Class I bike paths, Class II bike lanes, Class III bike routes, and Class IV separated bikeways. Beverly Hills has approximately 3.6 miles of Class II on-street striped bike lanes and 0.5 miles of Class III bike routes with shared lane markings, also called sharrows.

Currently, it can be challenging for bicyclists to travel in Beverly Hills due to few existing dedicated bicycle facilities. While confident bicyclists may feel comfortable sharing the road with moving vehicles, the existing bicycle network in the city is not a holistic network of low-stress facilities and generally does not provide access to key destinations, like schools, parks, and commercial corridors.



Table 4-1: Existing Bikeways

CLASS	DESCRIPTION	PHOTO	EXISTING FACILITIES
Class I Bike Paths	<ul style="list-style-type: none"> Off-street, completely separate from the roadway Provide exclusive right-of-way for bicyclists (and pedestrians) Cross flow by motor traffic is minimized May provide separate pedestrian lanes 		None
Class II Bike Lanes	<ul style="list-style-type: none"> On-street, striped lane for one-way bicycle travel Typically adjacent to vehicle traffic traveling in the same direction Can include buffers for separation from moving traffic and parked vehicles Can be placed in one direction in constricted rights-of-way 		<ul style="list-style-type: none"> Burton Way from Rexford Drive to eastern City limits Crescent Drive from Sunset Blvd to Park Way North Santa Monica Boulevard from western City limits to Doheny Drive
Class III Bike Routes	<ul style="list-style-type: none"> Designated preferred route for bicyclists on streets shared with motor vehicles Established by signage and optional pavement markings Can include traffic calming to create a bike boulevard 		<ul style="list-style-type: none"> Crescent Drive from Park Way to Wilshire Boulevard South Santa Monica Boulevard from Crescent Drive to Rexford Drive
Class IV Separated Bikeways	<ul style="list-style-type: none"> On-street bike lane physically separated from motor vehicle traffic through bollards, planters, or other vertical delineation Often accompanied by bicycle signals through intersections 		None



BIKE PARKING

The City manages a Bike Rack On-Request Program for business owners to request installation of bike parking adjacent to their businesses at no charge. Applications must be submitted to the City Traffic Engineer for review and approval.

Figure 4-2 shows the locations of bike racks in Beverly Hills. Bike racks are most appropriate for short-term storage of bicycles, approximately two hours or less. They can be placed in City right-of-way along sidewalks or as on-street “bicycle corrals.” While some commercial corridors have appropriately spaced bike racks, others have few or no bike racks, which can discourage bicycling to these destinations.

The City does not currently have any publicly available long-term bike parking, such as lockers or secure bike parking areas, a challenge for bicycle commuters riding to their places of employment that may not have a location to store their bicycles.

Figure 4-1: Existing Bikeways

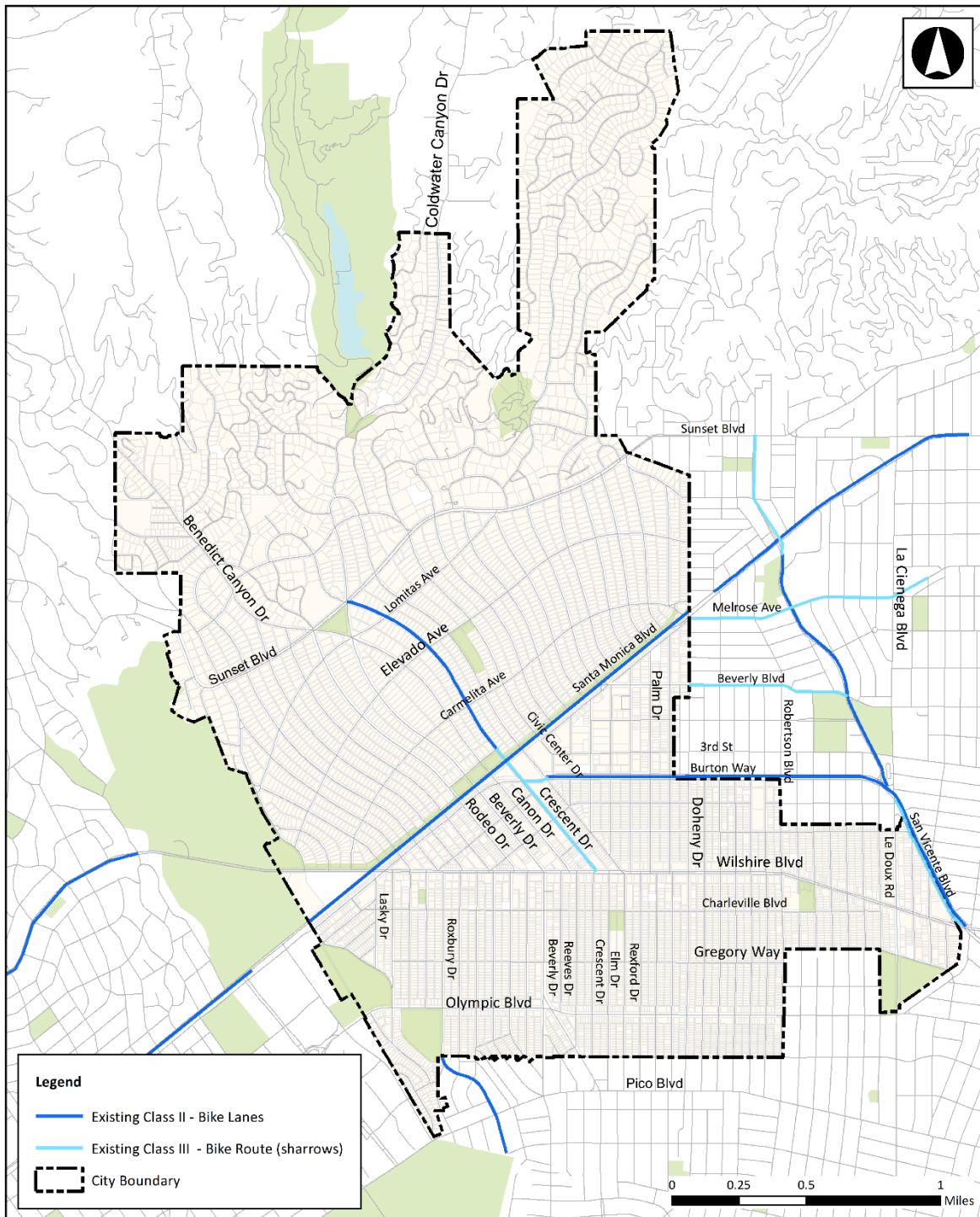
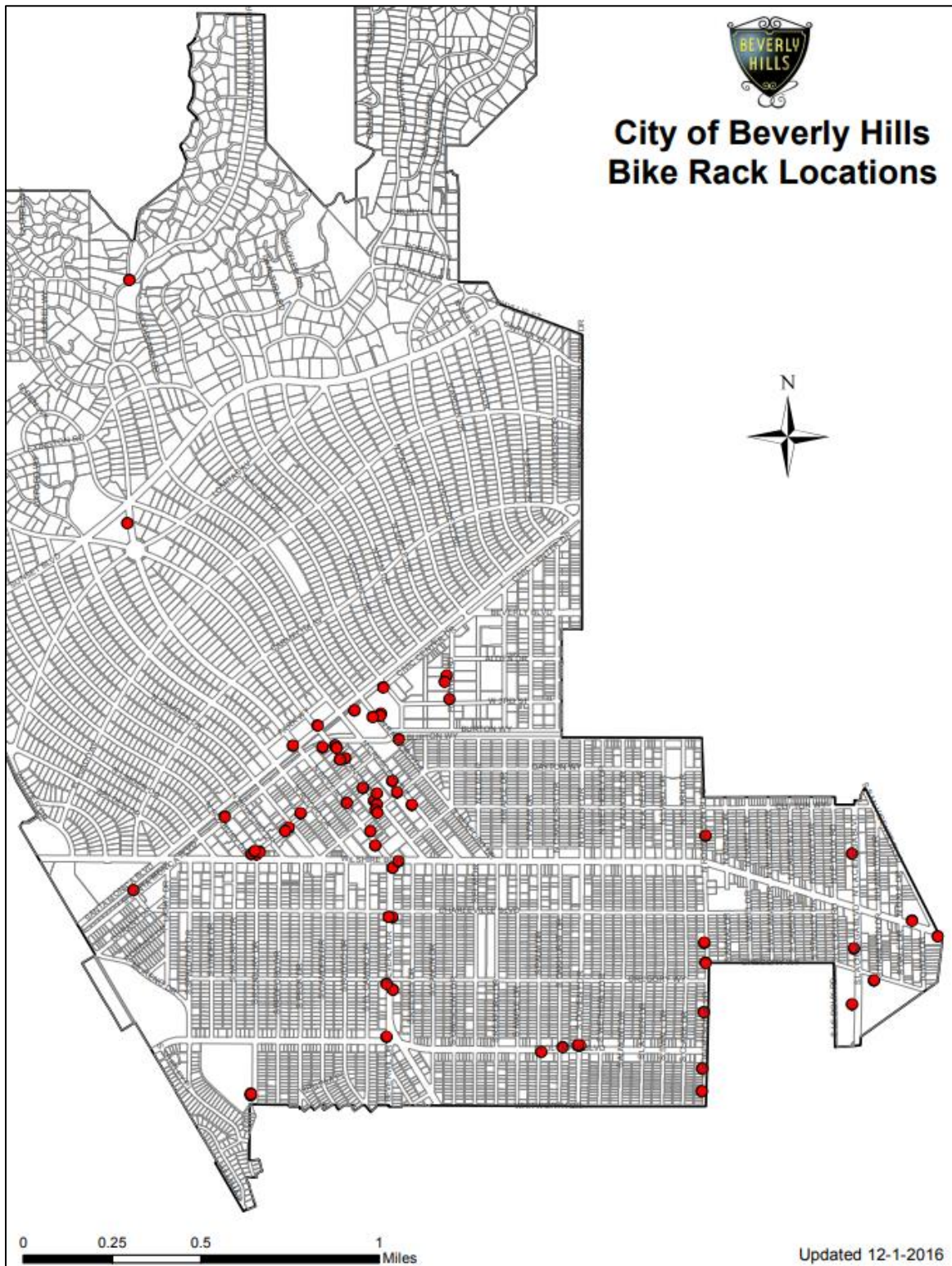


Figure 4-2: Existing Bike Parking



BIKE SHARE

Bike share is a form of public transportation where bicycles are made available 24/7 to rent for short, point-to-point trips. The City began operating Beverly Hills Bike Share in 2016, the second bike share program in Los Angeles County. The system started with 11 bike share stations and 50 bikes, and expanded in April 2018 to include access to the bike share systems in Santa Monica, West Hollywood, and UCLA (though West Hollywood has since pulled out of the program and converted their stations to “virtual” stations). Together, these systems make up Bike Share Connect, which has a coverage area of over 30 square miles, 135 stations (including West Hollywood’s virtual stations), and 830 GPS-connected smart bikes. Members of Bike Share Connect can pick up and drop off bikes within any of the bike share systems without an additional fee.

Figure 4-3 shows the locations of bike share stations in Beverly Hills. Placement of these stations involved review by the Traffic & Parking Commission. Determining station locations in a built-out environment proved challenging as not all businesses supported stations in front of their properties.

The City uses average trips per bike per day to evaluate performance of the bike share system. From September 2016 to September 2017, the average trips per bike per day in Beverly Hills was 0.29, considered low based on industry best practices. It is possible that with implementation of bikeway infrastructure recommendations in the Complete Streets Plan, average trips per bike per day could increase. Conversely, use could decrease with the City of West Hollywood withdrawing from the program as of August 2019.



Figure 4-3: Bike Share System Area

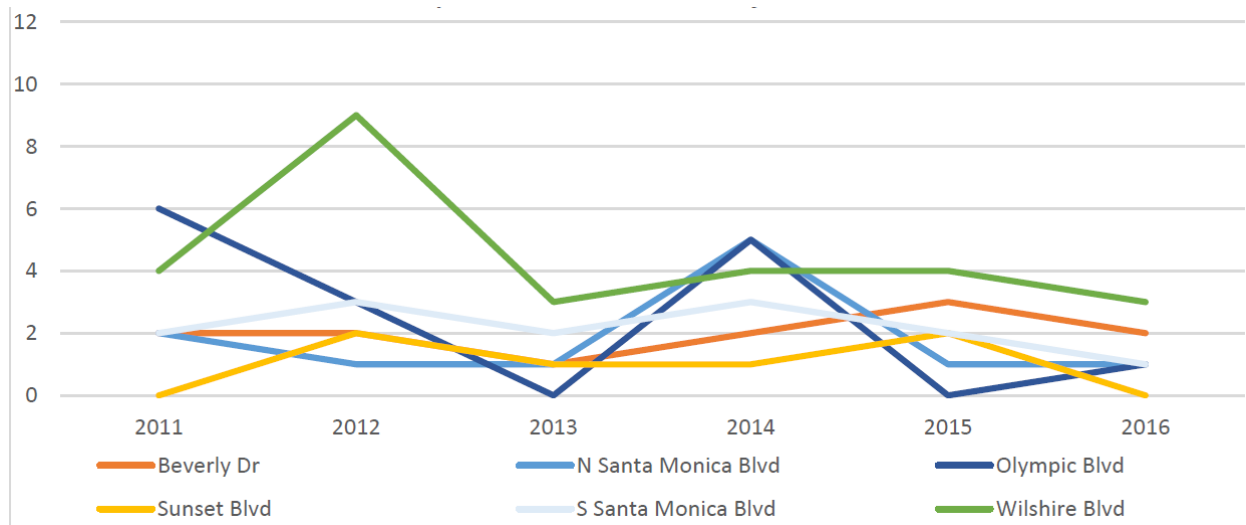


BICYCLIST-INVOLVED COLLISIONS

Understanding where bicyclist-involved collisions occur can help prioritize locations for new or enhanced bicycle infrastructure. A 2011-2016 citywide collision analysis using data from the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (TIMS), and the City's police incident reports, identified initial observations about the collision landscape in Beverly Hills.

As shown in **Figure 4-4**, bicycle collision patterns along the primary corridors fluctuate from year to year, with no meaningful trend up or down over the six years. No one corridor disproportionately accounts for bicycle collisions compared to citywide totals. Bicycle collisions citywide fluctuated between 14 and 41 each year. There are no consistent trends for bicycle collisions citywide.

The City is in the process of procuring new collision management software to better track, analyze, and report on collisions in Beverly Hills. This software will help to prioritize future bikeway improvements and inform upgrades.

Figure 4-4: Bicycle Collision Trends on Major Roads (2011-2016)

Source: Fehr & Peers, 2018

BICYCLE PROGRAMS

The City of Beverly Hills has instituted a number of programs designed to promote bicycle use, described in **Table 4-2** below. With the expansion of the on-street bikeway network, these programs will help educate existing and encourage new bicyclists.

Table 4-2: Beverly Hills Bicycle Programs

PROGRAM	DESCRIPTION
Bike Smart	In 2016, the City of Beverly Hills collaborated with Hawthorne Elementary School to provide weekly bicycle safety classes to children between 3 and 8 years old. The program is not currently active.
Bike Share Helmet Pilot Program	The City of Beverly Hills offers bike share members a free helmet, based on availability/inventory. Members must sign a waiver to receive a helmet.
Bicycle and Pedestrian Awareness Program	In 2017, the Southern California Association of Governments awarded the City of Beverly Hills \$141,000 through its 2017 Active Transportation Call for Proposals for a Bicycle and Pedestrian Awareness Program that will educate residents about safety and promote walking and biking. Funding is anticipated to be received in 2020.
Bike Rack-on-Request Program	The City of Beverly Hills provides business owners the opportunity to request a bike rack to be installed adjacent to their place of business in the public right-of-way (if feasible). The bike racks are available free of charge.
Beverly Hills Police Department Bicycle Patrol	The City of Beverly Hills' Police Department has a unit that conducts enforcement by bicycle.
Bike Month	The City of Beverly Hills has proclaimed the month of May as Bike Month and celebrated national events like Bike to Work Day.
Bike to Work Day	In 2019, the City hosted a pit stop on South Santa Monica Boulevard at Canon Drive to hand out treats to bicycle commuters.
Large-scale Bike Events	The City of Beverly Hills provides support to large-scale bike events like the Amgen Tour of California Bike Race, Gran Fondo Italia Bike Event, and AIDS/LifeCycle Bike Ride that come through the city.

WHAT WE HEARD

In addition to the existing conditions analysis, community feedback helped to inform the recommendations in the Complete Streets Plan. During the public outreach process, 68 percent of survey respondents said they want safer conditions for biking. 49 percent cited safety concerns as a discouragement from biking and 61 percent cited lack of dedicated bikeways as a discouragement from biking. Overall, 77 percent of respondents described the existing conditions for biking as poor or fair. More information about the public outreach process is included in **Chapter 2** and detailed public outreach summaries can be found in **Appendix E**.

*If you build proper bike infrastructure that is **safe, convenient and enjoyable** people will start biking more often.*

– SURVEY PARTICIPANT

WHERE WE ARE GOING

OPPORTUNITIES AND CHALLENGES

The existing east-west bike lanes on North Santa Monica Boulevard and Burton Way, and north-south bike lanes/sharrows on Crescent Drive, create great backbones for the future bikeway network. However, overall there is a lack of both east-west and north-south bikeways throughout Beverly Hills. Building off these existing corridors and prioritizing the accelerated installation of several additional east-west and north-south bicycle facilities could help to develop a holistic bikeway network that bicyclists can use to traverse the city. One existing opportunity is the City's coordination with the City of Los Angeles to the west and City of West Hollywood to the east to close existing gaps in the North Santa Monica Boulevard bike lanes.



Because the City's streets are built out, providing dedicated space for bicyclists is challenging, as it means reallocating space from parking or travel lanes. In addition, the majority of the City's streets are two-lane, residential streets where options for reallocating space are substantially more limited. As such, implementing bike lanes and protected bike lanes will require a robust discussion of tradeoffs with the community during plan implementation to build consensus on the best design for each corridor.

Since the majority of streets in the city are lower volume residential streets, this presents the opportunity to create a robust bicycle boulevard network that serves the needs of bicyclists of a wide range of ages and

abilities. Bicycle boulevards can take the form of shared travel lanes between bicyclists and drivers with extensive traffic calming (Class III) or can provide dedicated bike lanes (Class II) in one or two directions when on-street space permits. With the provision of adequate crossings of arterial and collector streets, this could help provide a low-stress bicycle network throughout the city.



It is predicted that in the long-term, autonomous vehicles may reduce the need for privately owned vehicles and in turn the need for parking; if that proves true, reduced on-street parking demand will provide more opportunities to install bike lanes in the future, especially on neighborhood streets. This could mean that streets with bike routes or only one bike lane in the short-term could eventually be converted to two bike lanes or protected bike lanes.

Existing bikeways in Beverly Hills do not currently provide direct access to the future Metro Purple Line stations at Wilshire/La Cienega and Wilshire/Rodeo. Prioritizing a comprehensive network of bikeways of varying types to connect with the future subway stations, plus providing high quality long-term bike parking, will help bicyclists safely and conveniently navigate to high quality transit and provide a level of bicycle mobility in Beverly Hills comparable to driving. Metro's plans for a secure bike parking area (which they refer to as a mobility hub) at the Wilshire/Rodeo station provide a good jumping off point for connecting bicycling to transit.

RECOMMENDED BIKEWAYS

The vision of the recommended bikeways in Beverly Hills is a holistic network that prioritizes accelerated installation of key east-west and north-south bicycle facilities to provide access to schools, parks, commercial areas, and the Metro Purple Line stations, connected with existing bikeways. **Figure 4-5** identifies a recommended holistic bikeway network for Beverly Hills.

The holistic bikeway network includes Class II bike lanes, Class IV protected bike lanes, and Class III bike boulevards. **Table 4-3** describes considerations for Class II and IV bikeways, and provides initial conceptual details about tradeoffs used to recommend each bikeway class and design details for further exploration/confirmation during implementation. For example, to avoid concentrating parking impacts on one street over another, one-way protected bike lane couplets are considered for both Charleville Blvd and Gregory Way. **Figure 4-6** displays cross-sections that describe the types of potential bikeways and impacts considered for Charleville Blvd and Gregory Way, which led to this consideration.

Figure 4-5: Holistic Bikeway Network

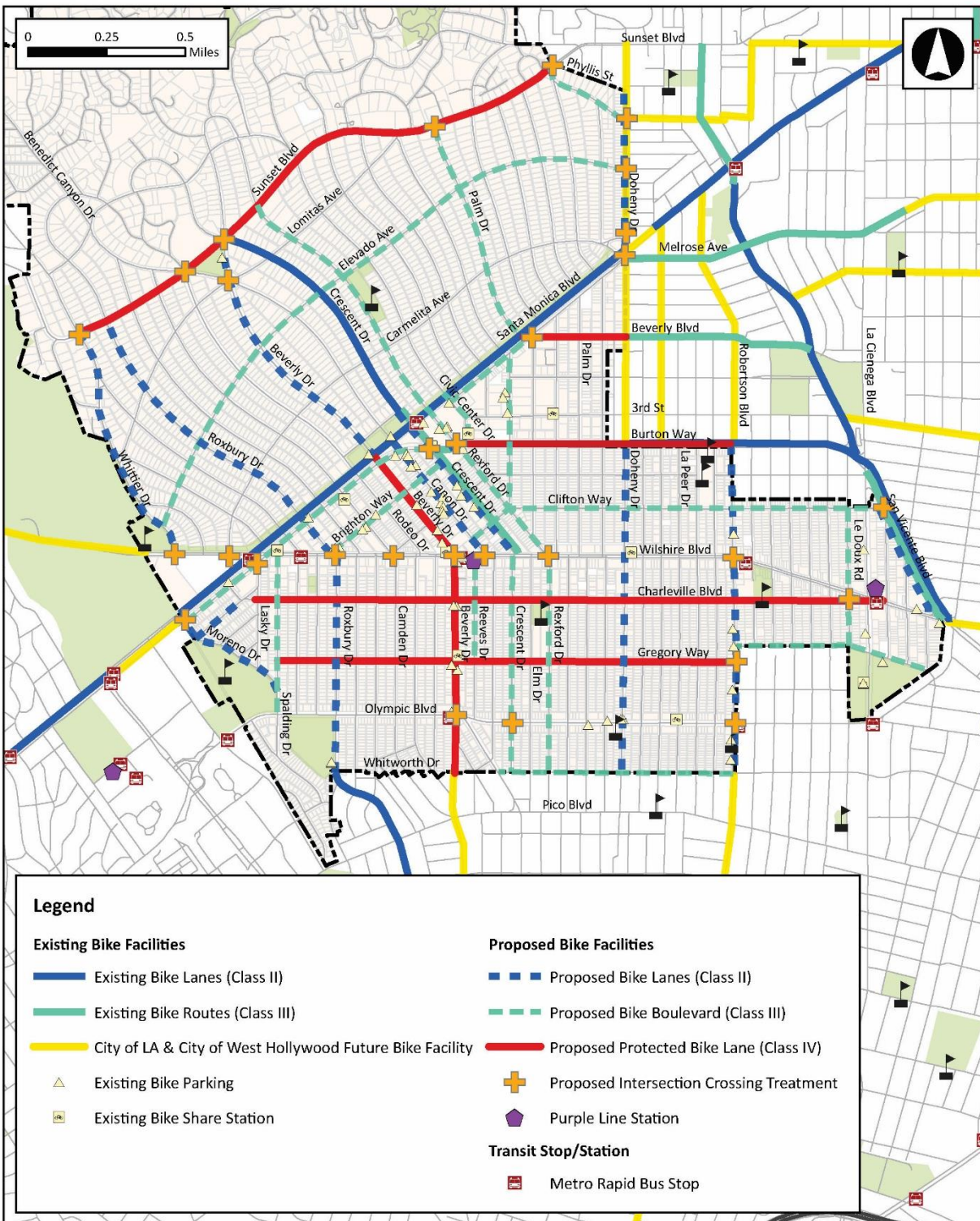


Table 4-3: Holistic Bikeway Network Considerations

BIKEWAYS	CLASS	CONSIDERATIONS
Burton Way – South Santa Monica Blvd	Class IV	<ul style="list-style-type: none"> Existing bike lanes could be made protected at bus stops through the implementation of floating bus islands (bus bulbs), likely with limited striping changes and without impact to number of travel lanes Protected bike lanes in the short-term are likely not feasible due to the City's ongoing median reconstruction project and the need for coordination with City of Los Angeles The transition between Burton Way and South Santa Monica Blvd should be enhanced Bike lanes on South Santa Monica Boulevard could be explored as part of a streetscape plan that identifies priorities for the corridor
Beverly Blvd	Class IV	<ul style="list-style-type: none"> It may be feasible to install protected bike lanes by replacing multiple travel and/or parking lanes
Beverly Drive	Class II and Class IV	<ul style="list-style-type: none"> If the location of the North Portal for the Wilshire/Rodeo subway station (EIR in progress) is identified at Beverly Drive, the City should prioritize the study of bike lanes on both North and South Beverly Drives On South Beverly Drive, it might be feasible to convert one travel lane in each direction to parking protected bike lanes On North Beverly Drive between Wilshire Boulevard and North Santa Monica Boulevard, it might be feasible to convert one travel lane into bike lanes; installing protected bike lanes may be challenging due to curb extensions at midblock crosswalks in the parking lane that narrow the roadway; converting parking to bike lanes might also be challenging due to midblock curb extensions On North Beverly Drive north of North Santa Monica Boulevard, bike lanes can likely be installed without a roadway reconfiguration
Canon Drive – Crescent Drive	Class II	<ul style="list-style-type: none"> As a mitigation for construction of the Wilshire/Rodeo subway station, Canon Drive will be closed at Wilshire Boulevard for at least two years If stakeholders recommend making the closure longer-term, the City should determine if Canon Drive (between North Santa Monica Blvd and Wilshire Blvd) would be more appropriate for bike lanes over Crescent Drive On both Canon and Crescent Drives, a 4 to 3 lane roadway reconfiguration could likely provide bike lanes and a center turn lane
Charleville Blvd – Gregory Way	Combined Class III and Class IV	<ul style="list-style-type: none"> Installing one-way protected bike lanes with sharrows in the opposing direction on both streets would minimize parking loss while providing protected bike lanes in two directions Installing two-way bike lanes or protected bike lanes on either street would likely require parking removal on the entire corridor Treatments to improve bicyclist visibility at stop-controlled intersections should be explored as there are not signals to indicate right-of-way An intersection crossing treatment at Gregory Way/Robertson Blvd, such as bicyclist-activated flashing beacons, should be explored
Doheny Drive	Class II	<ul style="list-style-type: none"> It may be feasible to stripe bike lanes in two directions by replacing on-street parking on one side of the street It may be feasible to stripe a bike lane in the uphill direction with sharrows in the downhill direction to provide a dedicated bike lane where the speed differential between drivers and bicyclists is

BIKEWAYS	CLASS	CONSIDERATIONS
		<p>greatest (potential to have more conflicts) while minimizing parking loss</p> <ul style="list-style-type: none"> North of Santa Monica Boulevard, the City shares the street with West Hollywood, so a design must be coordinated
Durant Drive	Class II	<ul style="list-style-type: none"> Bike lanes may be feasible without a roadway reconfiguration
Moreno Drive – Spalding Drive	Class II	<ul style="list-style-type: none"> Moreno Drive is only wide enough for existing parking on one side of the street; it may be possible to stripe bike lanes in both directions by replacing the existing parking lane On Spalding Drive from Wilshire Blvd to Olympic Blvd, bike lanes may be feasible on most blocks without a roadway reconfiguration On Spalding Drive between Charleville Blvd and Gregory Way, bike lanes may be feasible by replacing the center turn lane
Robertson Blvd	Class II	<ul style="list-style-type: none"> From Burton Way to Clifton Way, it may be feasible to install bike lanes by replacing one parking lane or one travel lane From Clifton Way to Whitworth Drive, it may be feasible to install bike lanes by replacing multiple parking and/or travel lanes
Roxbury Drive	Class II	<ul style="list-style-type: none"> Between Sunset Blvd and Santa Monica Blvd, striping a bike lane in the uphill direction may be feasible by replacing on-street parking on one side of the street Between Wilshire Blvd and Olympic Blvd, striping a bike lane in the uphill direction may be feasible by replacing on-street parking on one side of the street A contra-flow bike lane between Santa Monica Blvd and Wilshire Blvd could be explored An intersection treatment at Wilshire Blvd should be explored to reduce conflicts with drivers and guide bicyclists across the street Reverse angled parking at Roxbury Park should be explored if adjacent to sharrows Striping a southbound Class IV parking protected bike lane adjacent to Roxbury Park should be explored
San Vicente Blvd	Class II	<ul style="list-style-type: none"> There are existing northbound bike lanes in Los Angeles From La Cienega Blvd to Clifton Way, it may be feasible to install a southbound bike lane by replacing one travel lane From Clifton Way to Wilshire Blvd, it may be feasible to install a southbound bike lane without a roadway reconfiguration
Sunset Boulevard – Cinthia St	Class IV	<ul style="list-style-type: none"> City received grant funding (anticipated to be available in FY2019/20) to add 0.5 miles of bike lanes Because of high vehicle speeds and volumes, protected bike lanes should be explored Buffered bike lanes should be explored if the grade is too steep for protected bike lanes Feasibility of median narrowing should be studied throughout the corridor A connection from Sunset Blvd to Cinthia St (Class III) should be explored to connect with a proposed bikeway in West Hollywood
Whittier Drive	Class II	<ul style="list-style-type: none"> It may be feasible to stripe bike lanes in two directions by replacing on-street parking on both sides of the street It may be feasible to stripe a bike lane in the uphill direction with sharrows in the downhill direction to provide a dedicated bike lane where the speed differential between drivers and bicyclists is greatest (potential to have more conflicts) while minimizing parking loss

All bikeway projects identified in **Figure 4-5** and **Table 4-3** would undergo the following implementation process:

- Identify bikeway design concepts to explore
- Gather data, such as traffic volumes, roadway geometrics, parking utilization, and traffic speeds
- Discuss tradeoffs in design concepts, such as level of separation between bicycle and vehicle traffic versus parking removal
- Meet with the community and Traffic and Parking Commission to present information
- Refine design concepts
- Present concept recommendations to the Traffic and Parking Commission and City Council
- Develop engineering drawings
- Install bikeways
- Monitor and evaluate projects based on baseline traffic safety analysis and performance metrics
- Adjust designs, as needed

Prior bikeway studies helped to inform the recommended bikeways presented in this chapter. The City's original Bicycle Master Plan adopted in 1977, shown in **Figure 4-7**, recommended a 22-mile bikeway system to accommodate recreational and transportation needs. Recommendations from the Bicycle Master Plan, listed below, were considered during the development of the Complete Streets Plan, though not all recommendations were carried over (indicated with asterisks).

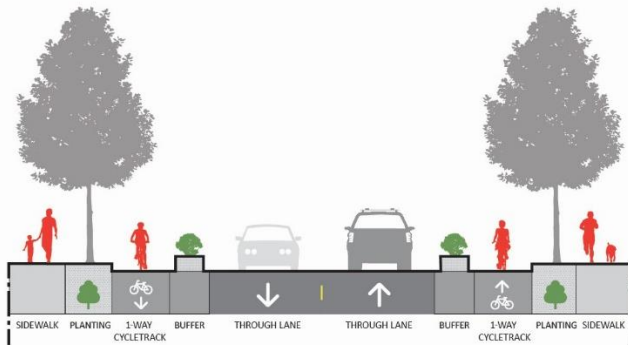
- Separated Bike Paths
 - Beverly Gardens Park*
 - Burton Way median strip*
 - Sections through Roxbury, La Cienega and Coldwater Canyon Parks, and the City Hall grounds*
- On-Street Bike Facilities
 - South of Santa Monica Boulevard
 - On-street bikeways (may require removing parking)
 - Development of two-way couplets on adjacent parallel streets (may potentially not impact parking)
 - North of Santa Monica Boulevard
 - Bike lanes adjacent to parked cars
 - Business Triangle
 - Bikeways along one side of mid-block alleys and/or on left side of one-way streets (parking and loading in alleys limited to one side so that bikeway can be accommodated on the other side of the alley)*
 - Connect to bike systems proposed or developed by neighboring jurisdictions



Bike paths through parks and through City Hall are not included in the plan recommendations due to potential conflicts with pedestrians and lack of available space to provide paths for bicyclists only. Instead, high quality bikeways are recommended on adjacent streets. The plan also does not include a recommendation for a bike path along Beverly Gardens Park because North Santa Monica Boulevard now includes high visibility bike lanes adjacent to the park.

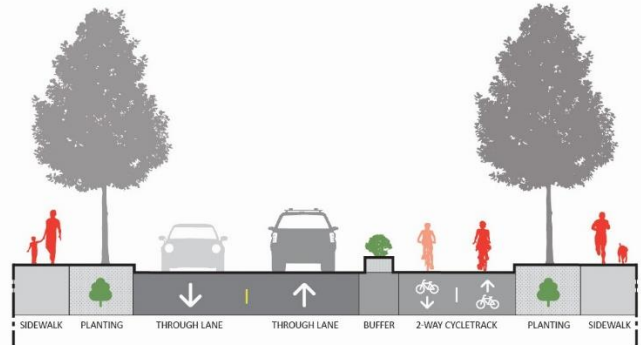
Figure 4-6: Example Bikeway Feasibility Analysis

Class IV with one-way bike lanes



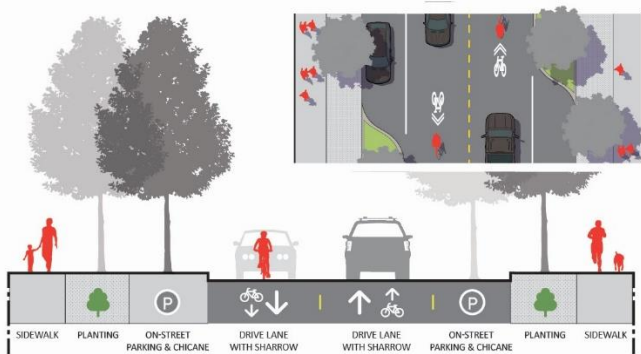
- Replaces on-street parking
- Reduces the parkway curb by 2 feet

Class IV with two-way bike lane



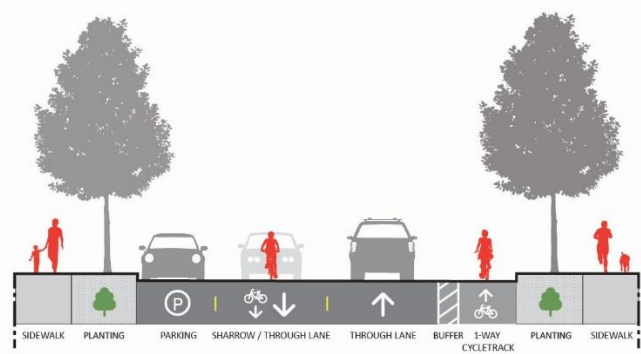
- Replaces on-street parking

Bike blvd. with traffic calming



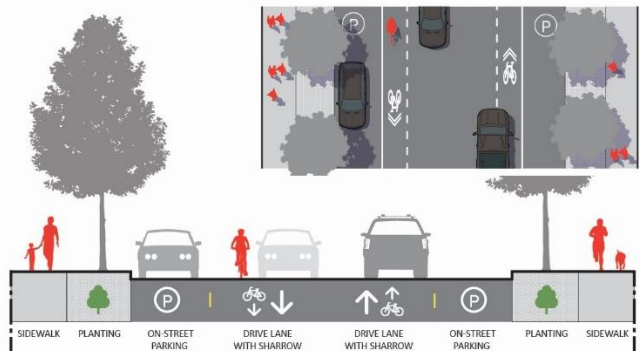
- Replaces on-street parking sporadically

Class II Bike lane and Class III sharrow



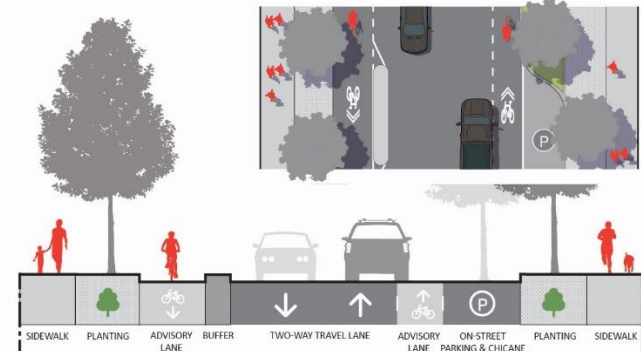
- Replaces on-street parking on one side

Bike blvd. with advisory bike lanes



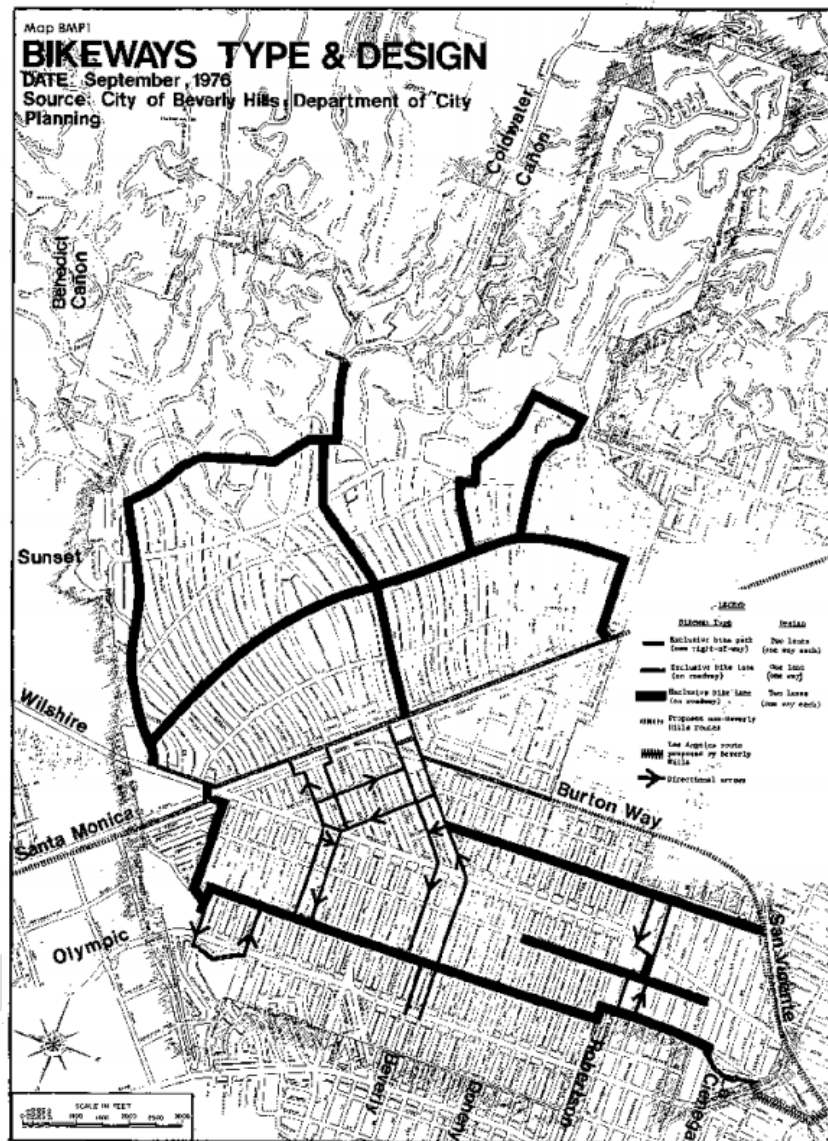
- Removes the center line

Bike blvd. with advisory bike lanes and channelizing island



- Replaces on-street parking on one side
- Removes the center line

Figure 4-7: Bicycle Master Plan



The Complete Streets Plan does not include a recommendation for a bike path in the Burton Way median due to the inconvenience it would create for bicyclists to access, as well as potential conflicts with vehicles turning. Instead, this plan recommends upgrading the existing bike lanes on Burton Way to make them more comfortable for bicyclists on the street. In addition, bikeways in alleys through the Triangle are not included due to potential conflicts with trucks, visibility issues, and reduced accessibility to key destinations. Instead, a robust network of on-street bikeways is recommended to provide bicyclists with a level of facilities comparable to what is provided to drivers.

In 2012, the City completed a Bikeway Feasibility Study (**Figure 4-8**) to evaluate the potential implementation of bikeways on Beverly Drive, Crescent Drive, Carmelita Avenue, Burton Way, Charleville Boulevard, and Reeves Drive. All recommendations from the 2012 study not yet implemented, with exception to Carmelita Avenue and the segment of Reeves Drive south of Charleville Boulevard, have been carried over to this plan.

Figure 4-8: 2012 Bicycle Study Recommendations



Source: Bicycle Feasibility Study, Fehr & Peers 2012

Through the use of pavement markings, striping, and signal changes (discussed in detail in **Appendix B**), bikeways can be made significantly more safe and convenient. For example, when implementing bikeways, the City can get creative about the type of bikeway or design that is installed in an effort to provide dedicated space for bicyclists in constrained rights-of-way:

- Buffered bike lanes can be applied where protected bike lanes will not fit
- A one-directional bike lane (typically uphill due to potential conflicts with increased speed differential) can be combined with sharrows in the opposite (downhill) direction
- Advisory bike lanes can be implemented where there isn't adequate roadway width for two travel lanes and two bike lanes; vehicles share a single two directional travel lane and can enter the bike lanes if a bicyclist is not present to navigate around oncoming traffic
- Contra-flow bike lanes on one-way streets can provide two-way bicyclist travel
- Combined bike and right turn lanes can be installed where there is not space to provide a bicycle through pocket at the intersection so the bike lane does not drop at the intersection where potential conflict is greatest



- Roadway reconfigurations can repurpose vehicle travel lanes to create space for bicycle facilities
- Reverse angled parking adjacent to bike lanes or bike boulevards can improve visibility of bicyclists
- Wayfinding signage and pavement markings along bike boulevards can help bicyclists navigate along residential streets that may zig-zag to create a network

Conflict zone and intersection treatments along designated bikeways, where appropriate, can make bicyclists more visible where vehicles cross the bicyclist path of travel:

- Green paint can make bikeways more visible to drivers
- Bike boxes can facilitate left turns to avoid merging with vehicle traffic to access turn lanes, and/or help transition from one type of bikeway to another
- Two-stage left turn queuing boxes can facilitate left turns to avoid merging with vehicle traffic to access turn lanes
- Intersection crossing markings can guide bicyclists through the intersection to reduce conflicts
- Protected intersections separate bicycle movements from vehicle movements to reduce conflicts at intersections



Bicycle signal modifications can facilitate safer and more convenient bicyclist crossings at intersections:

- Bicycle signals can be installed at intersections along shared use paths and separated bikeways to separate bicycle movements from vehicle movements
- Additional time in the “yellow” phase can be added for bicyclists to clear the intersection
- Bicyclist-activated flashing beacons can assist with crossings at non-signalized intersections
- Detection at intersections, such as through video technology, can trigger the signal for bicyclists



RECOMMENDED BIKE PARKING AND BICYCLIST SUPPORT

In addition to new bikeways, the City should proactively expand short-term bike parking (outside of the Bike Rack On-Request Program) along sidewalks or as on-street bicycle corrals on commercial corridors that currently lack parking facilities, at mid-block locations near frequented destinations, and at corners where one-way streets suggest an opportunity.

In business districts, expanded bike parking could be provided to help form a Bicycle Friendly Business District, which encourages and promotes bicycling for short trips by providing enhanced services, infrastructure, and

amenities/incentives for people on bikes, such as discounts. If a bike shop should begin operation in Beverly Hills, this could provide an opportunity as an anchor for a Bicycle Friendly Business District. The City should explore funding options for implementing Bicycle Friendly Business Districts, such as through the BOLD events.



The City should also expand publically available long-term bike parking by providing support for Metro’s existing plans for a mobility hub at the Wilshire/Rodeo station and studying options for a mobility hub at the Wilshire/La Cienega station that provides long-term bicycle parking and bicyclist amenities, discussed more in **Chapter 6**.

“Bike valet,” which functions in the same way as car valet by providing secure, attended parking, can make it easier to commute to community events by bicycle, demonstrate that bicycling is a legitimate form of transportation, and reduce the demand for vehicle parking. The City should explore providing

bike valet at large public events like BOLD or the Art Show. This could also include the provision of bike corral-style racks at events.

Parking for dockless bicycles or other shared micromobility options (discussed in **Chapter 6**) that are introduced into Beverly Hills in the future should provide curb spaces delineated with paint/stencils to minimize sidewalk clutter that may include few or no racks to maximize capacity. Any future changes to the bike share program should be considered as part of the ongoing exploration of other shared mobility programs.

Programs that encourage bicycling can help attract new riders or make existing riders feel safer. For example, installing and promoting bikeways to schools and/or parks as part of a Safe Routes to School/Parks program can increase access to these destinations, as well as inspire children and adults to bike to them. A Safe Routes to School program can encourage biking to school through City program guidelines and school district policies. For example, the City could support the Beverly Hills Unified School District in encouraging students who live near school to commute by walking, include the program on agenda items for meetings with the district, share best practice bike parking guidelines, and partner to promote events and student educational seminars.

To further the reach of its bicycle encouragement programs, the City could explore partnerships with other organizations. For example, a partnership with the Los Angeles County Bicycle Coalition (LACBC) could help promote the City’s Bike Month events in May.



Additionally, the City could explore partnerships with LACBC, the Beverly Hills Chamber of Commerce, and the Conference and Visitors Bureau to promote “open streets” events or “pedestrian only” days, which are programs that temporarily open streets to people walking and rolling by closing them to vehicles. These can give newer bicyclists a low-stress environment to give riding a try. At these events, streets become places where people of all ages, abilities, and backgrounds can play, explore, connect with one another, and improve their health. They often include a “festival” feel, with booths, games, and food. As part of event promotion (as well as other events like BOLD), the City could also work with the above partners to promote the establishment of bike friendly business districts.



5. WALKING IN BEVERLY HILLS

This chapter describes existing walking conditions in Beverly Hills, how the community suggested improving the pedestrian environment, opportunities and challenges for making streets more walkable, and recommended pedestrian infrastructure and programs. Priority projects the City intends to pursue to enhance walking in the next six years are detailed in the Complete Streets Action Plan.

WHERE WE ARE TODAY

EXISTING PEDESTRIAN AMENITIES




Understanding existing walking conditions in Beverly Hills helped to inform where pedestrian improvements are recommended and what types of additional pedestrian amenities the City should pursue. The Business Triangle in Beverly Hills is one of the most walkable neighborhoods in the Los Angeles region. The City was one of the first communities in the United States to implement pedestrian scrambles, and has since enhanced many downtown streets with wider sidewalks, midblock crossings, wayfinding signage, decorative lighting, and curb extensions to improve the pedestrian experience.


In 2015, the City received a Metro Call for Projects grant to improve pedestrian crossings at intersections throughout Beverly Hills (funding anticipated to be available in 2019/2020). The grant will fund new midblock crossings on the 400 blocks of Bedford and Camden Drives; curb extensions at the existing midblock crossing on the 200 block of South Beverly Drive; a pedestrian refuge island at the existing crosswalk at Wilshire Boulevard/Palm Drive; and curb extensions and flashing beacons at Robertson Boulevard/Chalmers Drive; enhanced crosswalks at Wilshire Boulevard and Beverly, Roxbury, Camden, and Bedford Drives; and upgrades to continental crosswalks at 20 additional intersections. In 2018, as part of the North Santa Monica Boulevard Reconstruction Project, the City completed the implementation of eight raised crosswalks connecting the

decomposed granite pedestrian path through Beverly Gardens Park across intersections. **Table 5-1** describes and identifies the locations of enhanced midblock, scramble, and raised crosswalks in Beverly Hills.

Recently, the City identified the standard crosswalk style in Beverly Hills as continental in an effort to make pedestrians in intersections more visible and is currently working to upgrade existing crosswalks citywide through regular maintenance. Through the Complete Streets Plan process, staff developed a crosswalk policy (discussed later in this chapter) that identifies appropriate locations for marked crosswalks and supporting infrastructure enhancements that will be applied to all future crosswalk installations.

Table 5-1: Existing Enhanced Crosswalks

TYPE	DESCRIPTION	PHOTO	EXISTING FACILITIES
Midblock Crosswalks	<ul style="list-style-type: none"> • Crosswalks located between two intersections • Are accompanied by traffic control 		<p>Canon Drive</p> <ul style="list-style-type: none"> • Between South Santa Monica Boulevard and Brighton Way • Between Brighton Way and Dayton Way • Between Dayton Way and Wilshire Boulevard <p>Beverly Drive</p> <ul style="list-style-type: none"> • Between South Santa Monica Boulevard and Brighton Way • Between Brighton Way and Dayton Way • Between Dayton Way and Wilshire Boulevard • Between Charleville Boulevard and Gregory Way <p>Rodeo Drive</p> <ul style="list-style-type: none"> • Between South Santa Monica Boulevard and Brighton Way • Between Brighton Way and Dayton Way <p>Robertson Boulevard</p> <ul style="list-style-type: none"> • Between Chalmers Drive and Olympic Boulevard <p>Wilshire Boulevard</p> <ul style="list-style-type: none"> • Between Clark Drive and Swall Drive
Scramble Crosswalks	<ul style="list-style-type: none"> • All red pedestrian signal phase • Allows pedestrians to cross in any direction 		<ul style="list-style-type: none"> • Brighton Way and Bedford Drive • Brighton Way and Camden Drive • Brighton Way and Rodeo Drive • Brighton Way and Canon Drive • Dayton Way and Rodeo Drive • Dayton Way and Canon Drive
Raised Crosswalks	<ul style="list-style-type: none"> • Extends the sidewalk across the road • Brings motor vehicles up to the pedestrian level • Serves as a traffic calming device 		<ul style="list-style-type: none"> • Alpine Drive • Foothill Road • Elm Drive • Maple Drive • Hillcrest Road • Arden Drive • Alta Drive • Sierra Drive • Oakhurst Drive • Third Street

TYPE	DESCRIPTION	PHOTO	EXISTING FACILITIES
Enhanced Crosswalks	<ul style="list-style-type: none"> Marked crosswalks at intersections with supplemental measures to improve access and safety 		<ul style="list-style-type: none"> Lasky Dr and South Santa Monica Boulevard South Palm Drive at Wilshire Boulevard (planned)

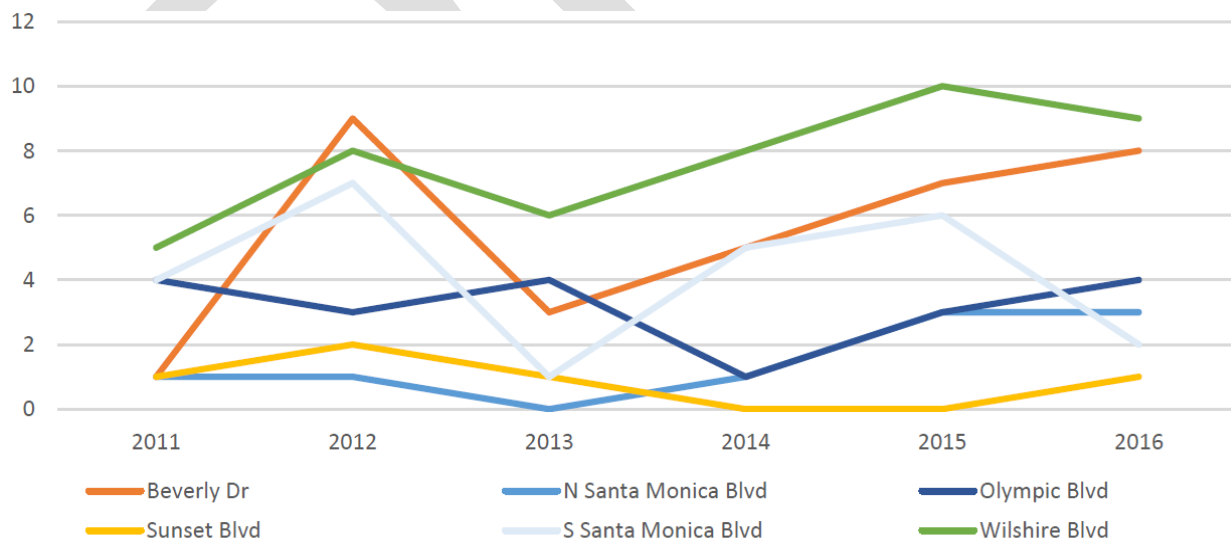
PEDESTRIAN-INVOLVED COLLISIONS

Understanding where pedestrian-involved collisions occur can help prioritize locations for new and enhanced crosswalks or other treatments that improve pedestrian safety. A 2011-2016 citywide collision analysis using data from the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (TIMS), and the City's police incident reports, identified initial observations about the collision landscape in Beverly Hills. According to the study, 9 percent of collisions in Beverly Hills are categorized as vehicle/pedestrian.

As shown in **Figure 5-1**, pedestrian collision patterns along the primary corridors fluctuate from year to year, with no meaningful trend up or down over the six years. No one corridor disproportionately accounts for pedestrian collisions compared to citywide totals. Citywide, pedestrian collisions fluctuated between 35 and 63 collisions each year. Overall, pedestrian collisions in the City of Beverly Hills increased citywide from 2011 to 2016.

The City is in the process of procuring new collision management software to better track, analyze, and report on collisions in Beverly Hills. This software will help to prioritize future pedestrian improvements and inform upgrades.

Figure 5-1: Pedestrian Collision Trends on Major Roads (2011-2016)



Source: Fehr & Peers, 2018

PEDESTRIAN PROGRAMS

The City of Beverly Hills has instituted several programs designed to promote walking, described in **Table 5-2** below.

Table 5-2: Beverly Hills Pedestrian Programs

PROGRAM	DESCRIPTION
Bicycle and Pedestrian Awareness Program	In 2017, the Southern California Association of Governments awarded the City of Beverly Hills \$141,000 through its 2017 Active Transportation Call for Proposals for a Bicycle and Pedestrian Awareness Program that will educate residents about safety and promote walking and biking. Funding is anticipated to be available in 2020.
Walk With the Mayor	To promote health and wellness, former Mayor Lili Bosse hosted weekly Monday morning walks leaving from City Hall.

WHAT WE HEARD

In addition to the existing conditions analysis, community feedback helped to inform the recommendations in the Complete Streets Plan. During the public outreach process, 50 percent of survey respondents said they wanted safer conditions for walking. Meeting participants noted that they want safer crosswalks, and improved safety on key corridors like Olympic Boulevard and Wilshire Boulevard. Community members also identified that improvements like street trees and wider sidewalks would enhance walkability on corridors like Wilshire Boulevard and Robertson Boulevard; residential streets need better lighting; and sidewalk maintenance/repair and cleaning should occur more regularly. More information about the public outreach process is included in **Chapter 2** and detailed public outreach summaries can be found in **Appendix E**.

We love living in the City of Beverly Hills. And we love to walk within our beautiful city.

– SURVEY PARTICIPANT

WHERE WE ARE GOING

OPPORTUNITIES AND CHALLENGES

While the pedestrian environment is robust in the Business Triangle with well-maintained sidewalks and marked crosswalks, there is room for improvement on commercial corridors outside the heart of downtown. Implementing the grant-funded pedestrian improvements on North Camden, North Bedford, and South Beverly Drives is an opportunity to help expand the pedestrian-friendly environment in the core of the Triangle out to the west and south, and serve as an example for future projects to improve crossings.

While many commercial corridors in Beverly Hills lack consistent, uniform streetscapes, there is general consensus throughout the city that upgrades to landscaping, street furniture, lighting, and signage could make these streets more welcoming. This topic has been brought up recently at various community meetings outside the development of this plan, including the Southeast Task Force, Mayor’s Strategic Planning Committee, and Small Business Task Force.

The Metro Purple Line extension also presents a great opportunity to improve the pedestrian environment, as Metro will be reconstructing the public right-of-way around the future stations. Streetscape upgrades could be incorporated into this construction to save costs and minimize duplication of efforts; the City does not currently have streetscape design standards that can be provided to Metro (or to other projects that involve reconstruction of the public right-of-way), but anticipates a planned study of the streetscape on Wilshire Boulevard will help inform their development.



RECOMMENDED PEDESTRIAN ENHANCEMENTS

As part of the Complete Streets Plan process, the City developed a crosswalk policy to guide the installation of new crosswalks and the upgrades of existing crosswalks. Adoption of this plan formally adopts the crosswalk policy. To inform policy development, the City reviewed crosswalk guidelines at the federal, state, and selected local agency levels. In addition, the Traffic and Parking Commission provided input and feedback.

For any new crosswalk, the City will install the continental style crosswalk markings, which features white (or yellow in school zones) painted bars paired with a limit line set back from the crosswalk. This design reduces driver encroachment, has a longer detection distance by approaching motorists, and is generally more visible than crossings marked by two thin lines connecting two corners of an intersection. The City has already implemented continental crosswalks at multiple locations and as existing crosswalks are maintained, non-compliant crosswalks will be replaced with continental crosswalks.



For non-controlled intersections, the City will use the criteria-driven process in **Table 5-3** below to determine if a marked crosswalk will be installed. If not all criteria are met, the City’s Traffic Engineer may use judgement to approve a marked crosswalk in unique circumstances.

Table 5-3: Sample Crosswalk Criteria Consideration Checklist

CRITERIA ITEM	CHECKLIST CONSIDERATION	YES	NO
Pedestrian Volume	Does the pedestrian volume equal a minimum of 20 pedestrians crossing a location during the pedestrian peak hour(s)?	<input type="checkbox"/>	<input type="checkbox"/>
Location	Is the minimum distance between the proposed crosswalk location and the nearest controlled pedestrian crossing at least 250 feet?	<input type="checkbox"/>	<input type="checkbox"/>
Speed	Is the 85 th percentile speed 30 miles per hour or less?	<input type="checkbox"/>	<input type="checkbox"/>

CRITERIA ITEM	CHECKLIST CONSIDERATION	YES	NO
Visibility	Can motorists see pedestrians at the curb waiting to cross the street?	<input type="checkbox"/>	<input type="checkbox"/>
Lighting	Is there adequate street lighting?	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Uses	Does the proposed crosswalk location provide a connection to a transit stop, school, civic building, senior center, recreation center, public library, medical center, childcare facility, post office, church, bikeway, or other facility that cannot currently be accessed conveniently?	<input type="checkbox"/>	<input type="checkbox"/>

Installing continental crosswalks with supplemental measures can dramatically increase driver yielding rates and help pedestrians cross high-volume or high-speed streets. As such, all marked crosswalks that meet the criteria for installation at non-controlled intersections in Beverly Hills will require additional treatments or enhanced technology, such as those listed below:

- Rectangular rapid flashing beacons
- Pedestrian hybrid beacons
- Raised crosswalks or other traffic calming treatments
- Speed feedback signs
- Staggered crosswalks
- Pedestrian refuge islands
- Striping changes such as narrower lanes, painted medians, roadway reconfigurations, or other speed reducing treatments

Decorative or creative crosswalks may be considered with the use of colors, textures, and patterns to promote City streets as engaging places for people. They could be designed to reflect the special character of a neighborhood, mark the gateway to a district, or otherwise create local identity and pride.



- Creative crosswalk treatments may only be considered at intersections where a marked crosswalk exists or can be approved per the crosswalk policy.
- Decorative elements may be added only between the continental bar markings. The reflective white parallel bars in continental layout must always be included.
- The material used shall be a special, highly durable road-marking paint approved by the City.
- While creativity and artistic innovation is encouraged, creative crosswalk treatments cannot obscure or interfere with regulatory crosswalk markings. No commercial advertising or shapes such as logos, or any text or colors that can be confused with standard traffic control devices or legends will be considered.

- Only locations where pavement is in good condition will be considered, allowing the materials to bond well.
- All locations and design proposals must be reviewed and approved by a City traffic engineer and the Traffic and Parking Commission.

If a crosswalk is requested for removal, the City will conduct an evaluation of pedestrian-involved collisions. The City would recommend crosswalk removal if data shows that collisions have increased after installation of a crosswalk compared to last three years prior to installation. The City will continue to follow the California Vehicle Code (CVC) Section 21950.5 guidelines for crosswalk removal: A 30-day notice of potential removal would be provided to residents and a public hearing would be required.

As mentioned above, implementing streetscape upgrades to commercial corridors outside the core streets in the Business Triangle could expand the walkability of Beverly Hills citywide by beautifying the streets. **Figure 5-2** shows the recommended priority corridors for pedestrian improvements in the city. These include (1) streets with destinations that attract pedestrian activity, like retail and office space, but need upgrades to make them more pedestrian-friendly since they have not been through recent urban design enhancement processes like many of the streets in the Business Triangle, and (2) streets where the City has received grants for new crossings. These changes will also making walking to school more convenient and a more attractive option, which is a priority of this plan.

Consistent landscaping, pedestrian-scale lighting, and street furniture would dramatically improve the walkability of these corridors. Upgrades on streets like South Santa Monica and Robertson Boulevards could help to revitalize commercial corridors that are critical pieces of the City's neighborhoods. In addition, continuing to improve sidewalks identified as in need of repair will help increase accessibility and encourage walking more often. Community members suggested looking to streets like Larchmont Boulevard in Los Angeles and the Third Street Promenade in Santa Monica as models.

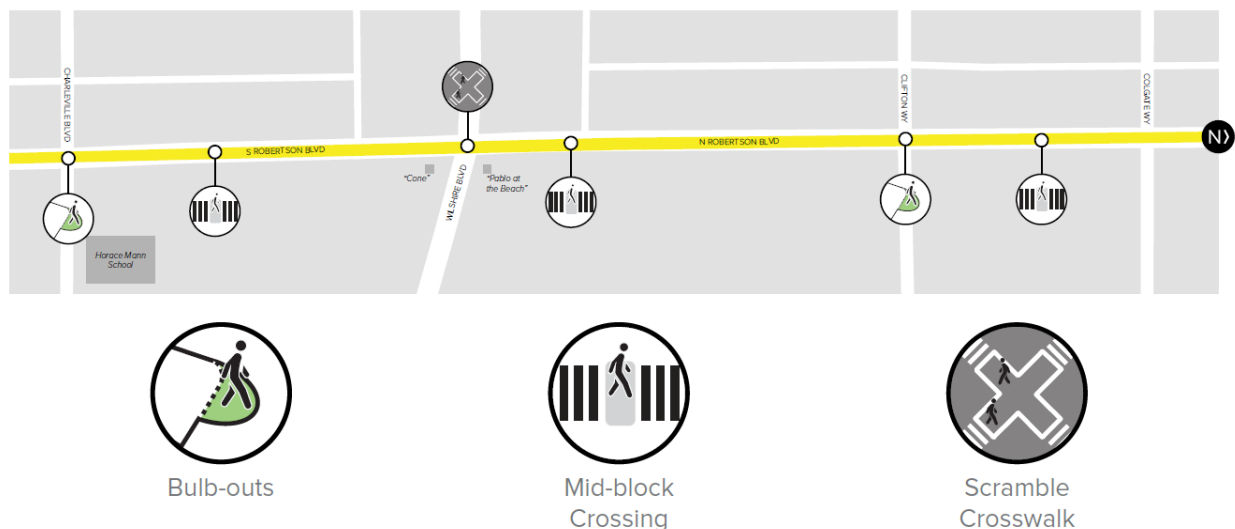


Figure 5-2: Recommended Pedestrian Corridor Improvements



Conceptual corridor-wide pedestrian improvement plans and design standards would be developed during implementation for each priority pedestrian corridor included in the plan to determine where specific improvements should be located, shown below in the example for Robertson Boulevard. This would include a targeted, neighborhood-level community outreach process for each street, as each corridor and intersection may have different, localized needs. Treatments to consider for pedestrian improvement plans that beautify streets, improve safety, and enhance crossings include but are not limited to:

- Streetscape upgrades like landscaping, pedestrian lighting, benches, decorative tree wells, and art
- Curb extensions
- Pedestrian-activated flashing beacons
- Pedestrian refuge islands
- Advanced limit lines and high visibility crosswalks
- Intersection treatments like tightened corner radii or reduced street angles
- Outdoor seating and gathering spaces, like parklets and plazas
- Green infrastructure elements, like permeable pavers and bioretention
- Signal modifications, like leading pedestrian intervals, scrambles, and automatic WALK phases



Since the arrival of the subway stations will dramatically increase the number of people walking on Wilshire and La Cienega Boulevards, the City plans to prioritize a more comprehensive study to develop streetscape standards for these two corridors to improve walkability and help them feel more welcoming and inviting. Developing design standards for these streets first will allow the City to provide the standards to Metro with enough time to incorporate them into plans for reconstruction of the public right-of-way adjacent to the stations. The City would then prioritize implementing the streetscape standards along the remainders of the corridors outside the station areas.



In addition to enhanced streetscapes and improved crossings, the pedestrian environment can be improved through pedestrian programs to encourage safe traveling on the pedestrian corridors. For example, the Bicycle and Pedestrian Awareness Program the City won grant funding for could help educate drivers on the importance of yielding to pedestrians in the crosswalk and other behaviors that make people walking feel unsafe.

As mentioned in the previous chapter, the City could establish a Safe Routes to School program to encourage walking to school and improve pedestrian access. A Safe Routes to School program can encourage walking to school through City program guidelines and school district policies. For example, the City could support the Beverly Hills Unified School District in encouraging students who live near school to commute by walking, include the program on agenda items for meetings with the district, share best practice bike parking guidelines, and partner to promote events and student educational seminars.

The City could also participate in national programs that bring awareness to walkability, such as PARKing Day, which is an annual event that encourages communities to temporarily convert 1-3 parking stalls into parklets (mini parks). This one-day demonstration project could help the City test the feasibility of and support for parklets on commercial corridors in Beverly Hills. A potential pilot program for PARKing Day (or longer) could be implemented for the Next Night event on South Beverly Drive.





6. TAKING TRANSIT IN BEVERLY HILLS

This chapter describes existing public transportation conditions in Beverly Hills, how the community suggested improving transit operations and the rider experience, opportunities and challenges for expanding transit use, and recommended transit infrastructure the City could pursue. Priority projects the City intends to pursue to improve public transportation in the next six years are detailed in the Complete Streets Action Plan.

WHERE WE ARE TODAY

BUS ROUTES AND STOPS

The transit system serving Beverly Hills is primarily comprised of bus service provided by Metro local and rapid lines. Additional bus service is operated by the Antelope Valley Transit Authority (AVTA) and the Los Angeles Department of Transportation (LADOT). Bus routes serving Beverly Hills are listed in **Table 6-1**.

Table 6-1: Bus Routes in the City of Beverly Hills

SERVICE AGENCY	ROUTE NAME	STREETS	SERVICE AREA	PEAK HOUR FREQUENCY (MINUTES)	
				AM	PM
Metro Local and Limited	2/302	Sunset Blvd	Westwood - Downtown Los Angeles	20-30	20-25
Metro Local	4	Sunset Blvd	Santa Monica/ West Los Angeles - Downtown Los Angeles	15-20	10-15
Metro Local	14	Canon Dr, Beverly Dr, Beverly Blvd, Burton Way & Doheny Dr	Larchmont Village - Downtown Los Angeles	10-20	5-10
Metro Local	16/316	Burton Way & Robertson Blvd	Century City - Downtown Los Angeles	5-15	5-10
Metro Local	17	Robertson Blvd	Culver City - Downtown Los Angeles	25-30	30-40
Metro Local	20	Wilshire Blvd	Santa Monica/ Westwood - Downtown Los Angeles	10-15	10-20

SERVICE AGENCY	ROUTE NAME	STREETS	SERVICE AREA	PEAK HOUR FREQUENCY (MINUTES)	
				AM	PM
Metro Local	28	Olympic Blvd	Century City - Eagle Rock	10-20	10-25
Metro Local	30/330	San Vicente Blvd	West Hollywood - Downtown Los Angeles/ East Los Angeles	25-30	30-45
Metro Local	105	La Cienega Blvd	West Hollywood - Vernon	15-25	15-20
Metro Local	220	Robertson Blvd	Culver City - Beverly Center	Limited	Limited
Metro Rapid	704	Santa Monica Blvd	Santa Monica - Union Station	15-20	10-15
Metro Rapid	705	La Cienega Blvd	West Hollywood - Vernon	10-30	15
Metro Rapid	720	Wilshire Blvd	Santa Monica - City of Commerce	8-11	3-5
Metro Rapid	728	Olympic Blvd	Century City - Union Station	10-20	10-20
Antelope Valley Transit Authority	786	Rodeo Drive & Wilshire Blvd	Century City/ West Los Angeles - Palmdale/Lancaster	Limited	Limited
LADOT Commuter Express	534	Olympic Blvd	Union Station - Westwood	Limited	Limited

Figure 6-1 presents the average weekday Metro boardings and alightings at the 72 local bus stops in the City of Beverly Hills. The stops with the highest average weekday boarding are observed at:

- South Santa Monica Boulevard and Crescent Drive
- La Cienega Boulevard and Wilshire Boulevard
- North Santa Monica Boulevard and Crescent Drive

The stops with the highest average weekday alightings are observed at:

- Sunset Boulevard and Canon Drive
- Doheny Drive and Beverly Boulevard
- South Santa Monica Boulevard and Canon Drive



Figure 6-2 presents the average weekday Metro boarding and alightings at the 15 rapid bus stops in the City of Beverly Hills. The stops with the highest average weekday boarding and alighting are observed at:

- Wilshire Boulevard and Santa Monica Boulevard
- Wilshire Boulevard and Rodeo Drive
- Wilshire Boulevard and Robertson Boulevard

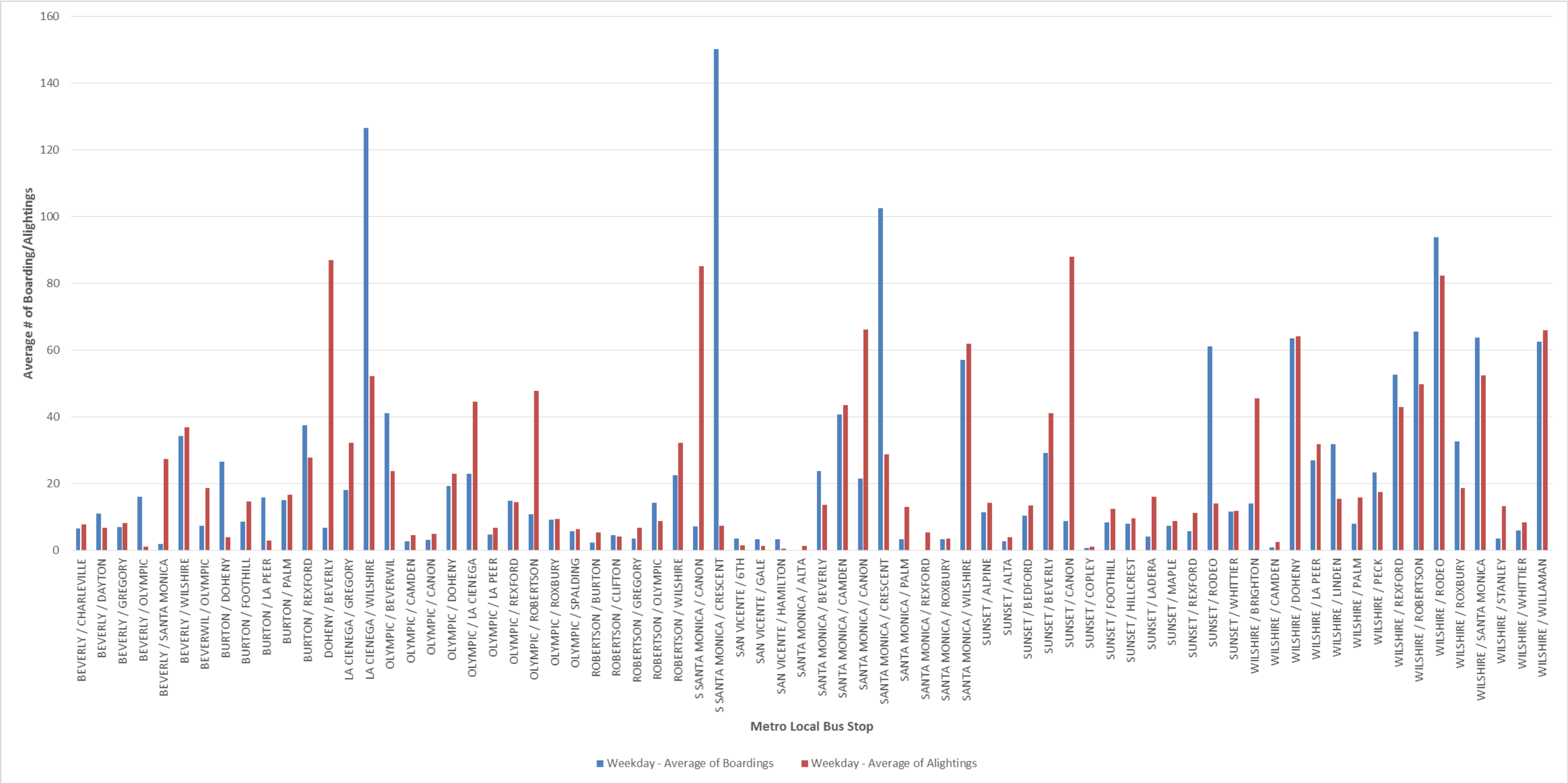


The City of Beverly Hills has 119 total bus stops for all transit operations, but only one bus shelter (in addition to a shelter at a tour bus layover). Some bus stops have seating, trash receptacles, or other amenities, but many others do not.

METRO PURPLE LINE EXTENSION

Two subway stations are under construction in Beverly Hills as part of the Metro Purple Line Extension from Koreatown in Los Angeles to the VA Hospital in West Los Angeles, shown in **Figure 6-3**. The stations will be located at Wilshire Boulevard/La Cienega Boulevard and Wilshire Boulevard/Reeves Drive (referred to as the Wilshire/Rodeo station). The Metro Purple Line is currently 6.4-miles and will extend another approximately nine miles west when completed.

Figure 6-1: Average Weekday Boarding and Alighting at Metro Local Stops

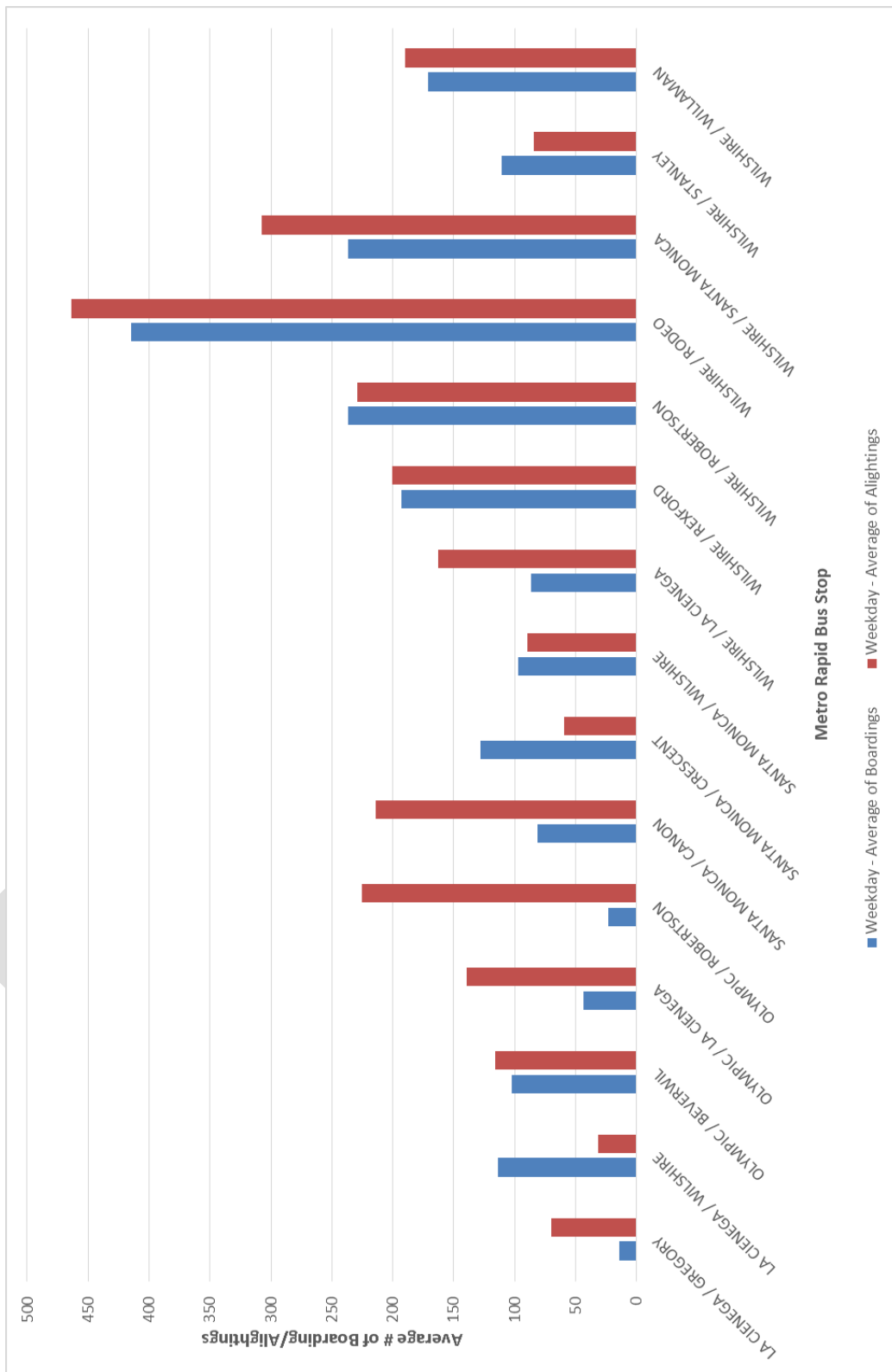


Source: Metro

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Figure 6-2: Average Weekday Boarding and Alighting at Metro Rapid Bus Stops



Source: Metro

Figure 6-3: Metro Purple Line Extension and Station Locations



In 2023, the Wilshire/La Cienega station of the Metro Purple Line extension is anticipated to open, followed by the Wilshire/Rodeo station in 2025. While it will fall under Metro’s jurisdiction to operate the subway line and manage the station plazas at street level, it will fall under the City’s jurisdiction to improve the corridors leading to and from the future stations, providing high quality first/last mile connections.

In early 2019, the City and Metro began the development of a First/Last Mile Plan for the Wilshire/Rodeo station to improve biking, walking, and bus connections to the future station. That effort will be closely coordinated with recommendations made in this Complete Streets Plan.

TRANSIT PROGRAMS

The City of Beverly Hills has instituted several programs designed to promote transit use, described in **Table 6-2** below.

Table 6-2: Beverly Hills Transit Programs

PROGRAM	DESCRIPTION
Trolley	The City of Beverly Hills offers free trolley service between the Third Street tour bus location and Rodeo Drive on Saturdays and Sundays from 11 a.m. to 5 p.m. During high traffic seasons, such as summer, service is expanded.
Dial-A-Ride	The City of Beverly Hills provides curb to curb pick-up and drop-off for Dial-A-Ride and Supermarket shuttles. The service is for seniors age 62 and older and people with disabilities.
Metro Bus Pass Senior Discount Program	Beverly Hills residents age 62 or older, and disabled residents of any age, are eligible for a 30-day discounted bus passes for \$7.00.
New Employee Metro Pass Program	The City of Beverly Hills in collaboration with Metro provides seven days of unlimited transit services to new City employees.

WHAT WE HEARD

In addition to the existing conditions analysis, community feedback helped to inform the recommendations in the Complete Streets Plan. During the public outreach process, 77 percent of survey respondents describe the existing transit service in Beverly Hills as poor or fair. 30 percent of respondents said they find transit service inconvenient and/or unreliable and 42 percent say they would use transit more if service was more frequent. Community workshop participants were enthusiastic about improvements to transit stop amenities, including more benches, shaded areas, and trash bins. They also commented on the need for higher capacity buses, bus lanes, and additional north-south bus routes. More information about the public outreach process is included in **Chapter 2** and detailed public outreach summaries can be found in **Appendix E**.



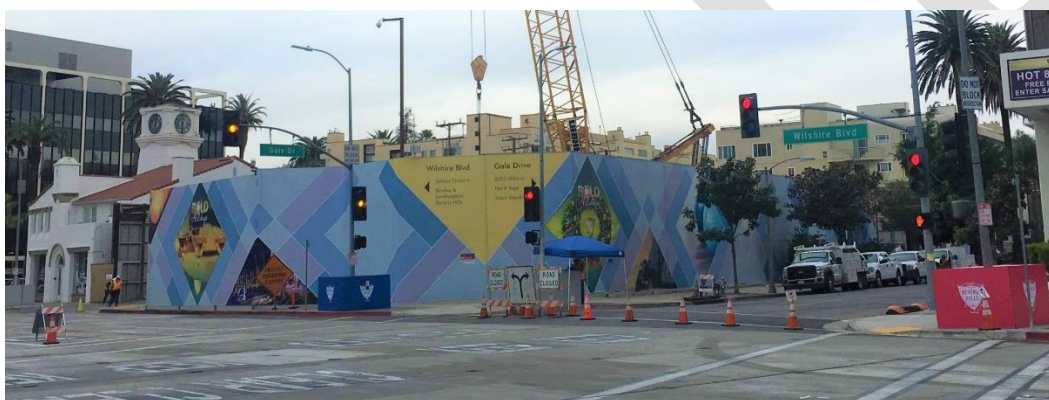
WHERE WE ARE GOING

OPPORTUNITIES AND CHALLENGES

The construction of the Metro Purple Line could be considered the greatest recent opportunity for improving mobility in the city, as it brings a high-speed alternative to driving. Metro anticipates that riders will be able to travel from the western terminus of the line at the VA hospital to Downtown Los Angeles in approximately 20 minutes, which currently can take over an hour by bus or car.

However, the Metro Purple Line will not provide direct, point-to-point access to all origins and destinations in Beverly Hills, so the City will be tasked with improving first/last mile connections, which will be no small feat. For example, as previously mentioned, the City only has one bus shelter, which can create an uncomfortable transfer for transit riders connecting to/from the train to buses in heat or inclement weather.

In addition, providing adequate loading and unloading at the Metro Purple Line stations will be a challenge, as there is currently minimal available space on-street adjacent to the stations due to peak hour travel lanes on Wilshire and La Cienega Boulevards. At the Wilshire/La Cienega station, an opportunity for off-street loading exists at the Gale Staging Yard property, which the City purchased and will take ownership of after subway construction is complete. At the Wilshire/Rodeo station, the City is in the process of exploring potential locations for a station entrance north of Wilshire Boulevard, the “North Portal,” to better connect the Triangle to the Wilshire/Rodeo station, which could provide an opportunity for loading/unloading north of Wilshire Boulevard. North Canon Drive will be closed at Wilshire Boulevard to create a cul-de-sac as a construction mitigation for at least two years; if stakeholders view the cul-de-sac as favorable in the future and would like to make it longer-term, North Canon Drive could potentially serve as a drop-off/pick-up area.



The City is somewhat limited in its ability to improve transit since it doesn’t operate the existing bus systems (or future subway) in Beverly Hills. However, there are opportunities to reduce delay, improve reliability, and enhance the user experience through infrastructure changes that the City can install in partnership with the bus operators.

Emerging trends in public transit (discussed in detail in **Appendix C**) are also an opportunity. Microtransit, for example, is a small-scale, demand responsive transit system, providing more flexibility over conventional public transit. Riders call the service when they want it, are picked up at/near their locations, and are dropped off at/near their destinations. This could serve as a first/last mile connection to the future Metro Purple Line stations. Shared mobility and shared micromobility/autonomous services are another potential option for first/last mile connections and to supplement transit. These services enable users to gain short-term access to transportation modes on-demand and can take the form of car sharing, bike sharing, on-demand ride sharing (carpooling and vanpooling), scooter sharing, and on-demand ride-hailing services. If demand exists in the city to allow a permitting process for shared use mobility devices, standards/guidelines should be developed, including a requirement for the provider to share data with the City. The National Association of City Transportation Officials (NACTO) provides guidance for cities and public entities as they look to manage and regulate dockless shared mobility providers. The City should also explore a potential partnership with a shared mobility provider as a demonstration project.



Mobility as a Service (MaaS) is the integration of various forms of transportation services (public and private) into a single, digital mobility platform available on demand. MaaS platforms are key instruments to incentivize public transit ridership, reduce vehicle miles traveled (VMT), and advance shared mobility services. As technology progresses, this is something the City should be aware of.

The City should also monitor new forms of public transit that are emerging as they could help reduce dependence on automobiles and provide other transportation options. For example, Hyperloop has attracted a lot of attention recently as a fifth mode of transportation. Virgin Hyperloop One is working on a demonstration project in Nevada and completed a feasibility study for a project in Missouri. Also, vertical takeoff and landing (VTOL) vehicles, popularly called flying cars or passenger drones, are currently being explored. The vehicles are ultimately intended to operate autonomously, though they would be piloted in initial stages, under various concepts proposed by companies such as Boeing, Airbus, Google, and Uber.

RECOMMENDED TRANSIT UPGRADES

Improving bus stops will dramatically improve the transit rider experience in Beverly Hills and is an important first step in implementing first/last mile connections to the future Metro Purple Line stations. **Figure 6-4** shows potential locations for standard (low ridership stop) and enhanced (high ridership stop) bus stop amenities in the city along the transit enhanced network, which are streets with existing bus routes. It is important to note that routes may change with the opening of the Metro Purple Line extension or as a result of Metro's in-progress Next Gen Bus Study, so the City should be prepared to add/revise this map as needed.



Standard bus stop amenities include minimum infrastructure for low and high ridership bus stops. At minimum, all bus stops within Beverly Hills should have substantial upgrades to street furniture, including shelter, seating, lighting, trash/recycling bins, poles/signs with route information and schedules, a system map (or link to one), a paved boarding area, and ADA-compliant pedestrian connections. High ridership stops, most of which are Metro Rapid bus stops, should also have standard amenities like street furniture, as well as real-time travel information to display to passengers when the next bus is coming, bicycle parking, automated displays, and potentially bike share/micromobility connections, bus bulbs/floating bus islands, and raised platforms for level boarding. The City should develop design guidelines for bus stops to ensure consistent furniture along corridors. Providing this infrastructure can make the trip more comfortable for existing riders and make transit more attractive to potential users. **Appendix D** includes additional details on transit stop/station design, placement, and first/last mile connections.

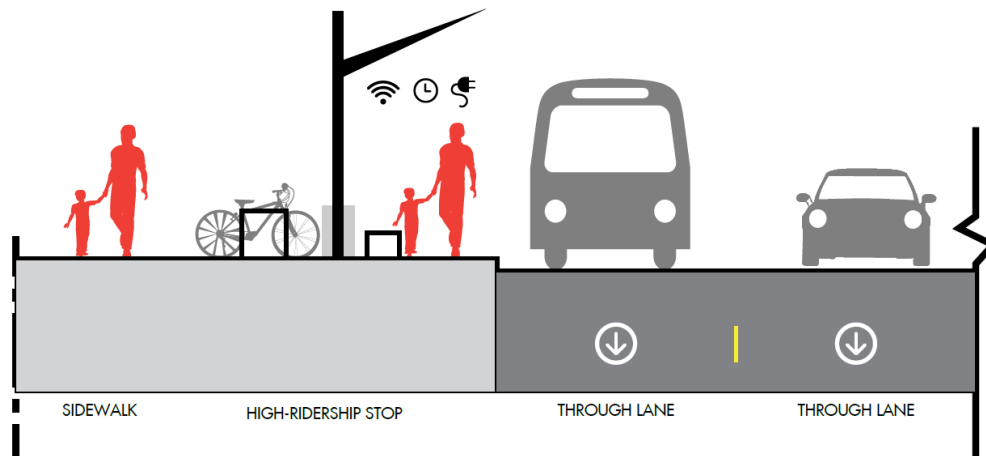
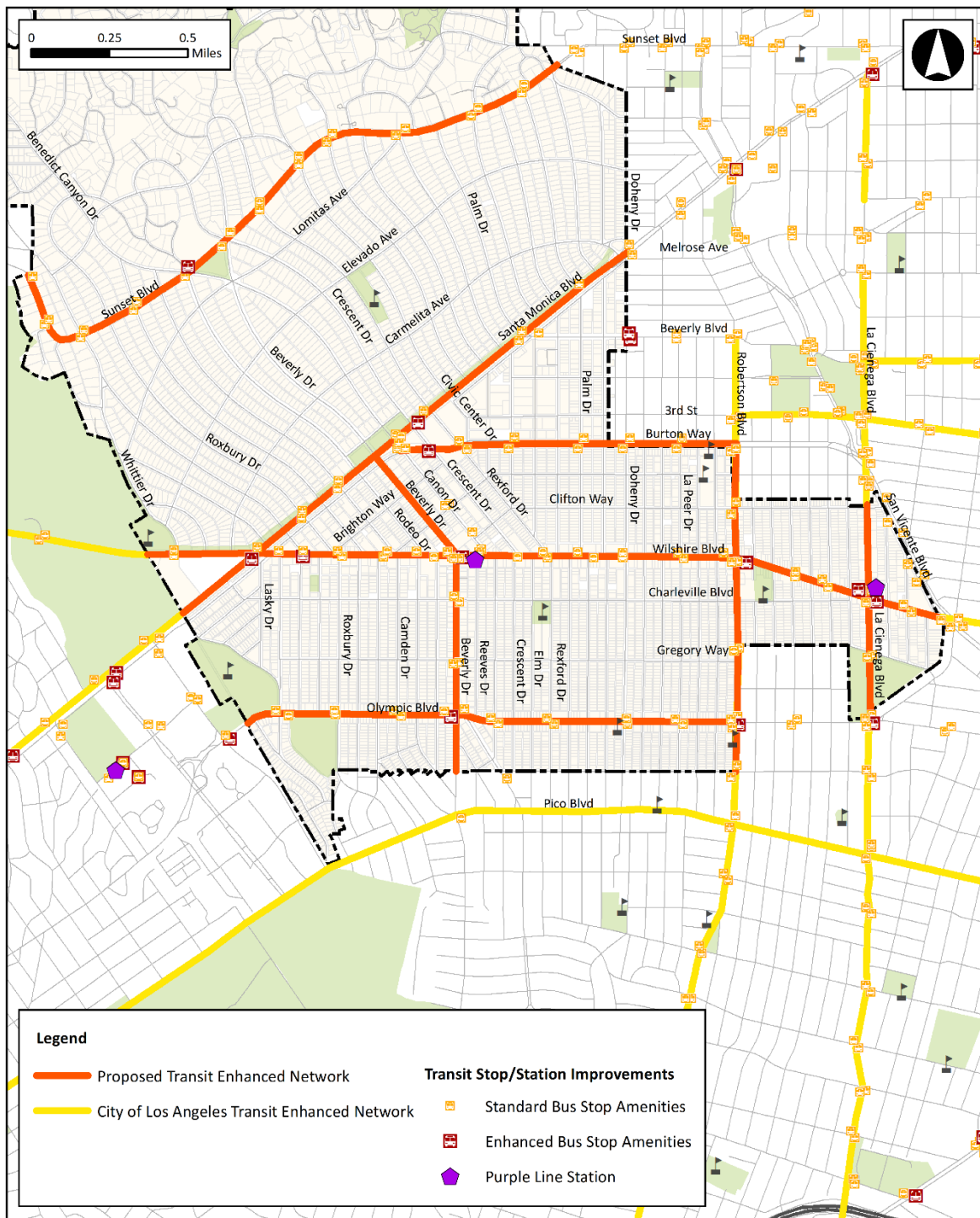


Figure 6-4: Recommended Transit Improvements



As mentioned above, the City purchased the Gale Staging Yard property from Metro, which is an opportunity to provide off-street first/last mile access to the Wilshire/La Cienega station. The City plans to explore options for a “mobility hub” at this site, which could include geofenced loading/unloading for Transportation Network Companies (TNCs), autonomous vehicle charging stations or staging, long-term bicycle parking and cyclist amenities, micromobility or shared mobility connections, and other amenities like small shops or cafes. The existing zoning allows for up to a three story building on the property, so the City intends to analyze what types of uses the community would like to have on this site and determine how they could be prioritized or accommodated.

For both the north and south portals to the Wilshire/Rodeo station, the City will need to explore high quality options for loading and unloading of passengers to mitigate traffic impacts to neighborhood streets and the Business Triangle. The City is currently working with Metro on the development of their First/Last Mile Plan for the Wilshire/Rodeo station, which will build upon conceptual recommendations in the Complete Streets Plan and recommend more detailed design changes around the station. Once the location of the North Portal is determined, loading options can be further refined, as well as potential options for a mobility hub to increase multi-modal station access.



Since the future Metro Purple Line extension and existing bus systems do not provide direct access to all origins and destinations in Beverly Hills, the City should explore implementing a microtransit service (discussed in detail in **Appendix B**) to provide point-to-point service to the subway stations as a first/last mile improvement and to increase transit access. This could take the form of an autonomous shuttle once technology has progressed toward widespread use. The shared use of autonomous vehicles could also help supplement transit service in the City and should be explored in the future, as well. The

City should pursue an autonomous vehicle demonstration project in the meantime to begin exploring this concept and to be prepared for when the technology can be brought to Beverly Hills.

There are many infrastructure options the City can explore to improve bus service in the City (discussed in detail in **Appendix B**). For example, bus lanes provide a dedicated travel lane for transit vehicles, which can improve reliability and increase travel speeds since the buses do not share lanes with motor vehicle traffic. Bus lanes have been found to reduce congestion because as bus speeds increase, more people switch to transit and there are fewer vehicles on the road. The City could consider a bus lane pilot program on Wilshire Boulevard after Metro Purple Line Section 2 design-build construction activities are completed. This could be a shared bus/bike lane to provide direct bicycle access to the subway stations. Other infrastructure items to consider implementation of include bus bulbs or floating bus islands (shown on the next page as a concept for Burton Way) to minimize the need for buses to pull in and out of traffic, and transit signal priority to reduce bus delay at intersections.



Providing quality infrastructure is only one piece of improved transit. Equally important is providing programs and incentives to encourage people to choose to take public transportation. For example, the City could participate in programs like Rideshare/Shared Mobility Week, which is hosted by Metro the first week of October and is meant to motivate commuters to try traveling by a mode that is not driving alone. Through this program, Metro organizes competitions with prizes to people/teams that log the most miles of commuting by walking, biking, transit, carpooling, vanpooling, or rideshare. Other incentives the City can use to encourage taking transit include providing a fleet of vehicles for site visits if staff commute without their private vehicles, parking cash-outs, subsidized transit passes, and City-managed carpool and rideshare matching. Additional recommendations for reducing automobile trips are discussed in the following chapter.

To supplement infrastructure, transit programs can make riding easier for those who are dependent on taking transit. For example, a Safe Routes for Seniors program, like Metro's On the Move Riders Club, can host events that educate older adults how to take transit.





7. DRIVING IN BEVERLY HILLS

This chapter describes existing driving conditions in Beverly Hills, how the community suggested improving traffic, and recommended street/signal infrastructure. Priority projects the City intends to pursue to improve driving in the next six years are detailed in the Complete Streets Action Plan.

WHERE WE ARE TODAY

Understanding existing street conditions in Beverly Hills helped to inform where vehicle improvements are recommended. In conjunction with the Complete Streets Plan, the City is in the process of updating its signal system and reevaluating operations to prepare for advancements in vehicle/signal technology. Through Metro Call for Projects grants, the City has synchronized signals on all major corridors starting in the 1990s. Much of the equipment is approaching the life cycle for replacement. A new software system will allow the City to store signal timing data in a robust database, which would provide greater capabilities for the City to optimize signal operations; reduce the likelihood of system crashes; and allow for implementation of future technology, such as connected and autonomous vehicles, that cannot operate on the City's current system.

The City developed a planning document which includes city staff/consultant roles, planning, implementation, and operations for the upgraded traffic signal system. The project is currently in the planning phase. The City retained KOA Corporation to conduct inventories at each signalized intersection, which includes the hardware/software in the cabinet, signals poles, and signal infrastructure on the poles. The Traffic Management Center located in the Public Works Department is also included as part of the inventory for upgrade. Following the inventory, KOA Corporation will provide the City a narrative on their findings, make

recommendations, and provide bidding documents for implementing a new traffic management system and layout of a new Traffic Management Center.

TRAFFIC AND PARKING

Figure 7-1 shows the average daily traffic (ADT) within the City. ADT is the total volume of vehicle traffic that passes along a highway or road in a typical 24-hour period. It is an important factor to consider when planning improvements to the roadway network and can be used to measure changes in travel patterns, such as increases in cut-through traffic.

The City of Beverly Hills offers public parking through on-street meters and multiple off-street structures. **Figure 7-2** shows the locations for on-street metered parking and **Figure 7-3** shows the location of 18 City-owned parking structures within the City of Beverly Hills. Knowing the location and utilization of on- and off-street parking in the city will help inform future efforts to prepare for autonomous vehicles, as it is possible on-street parking stalls may need to be converted to passenger drop-off/pick-up zones along some commercial corridors.



The City provides 35 Electric Vehicle (EV) charging stations with 59 Level 2 ports, as shown in **Table 7-1**, to encourage the use of low-emission vehicles. Annual on-road sales of EVs are expected to reach eight percent of total new car sales by 2020 and ramp up to 15 percent in 2025.³ Efforts should be made for similar percentages of parking spaces to be provided with EV chargers.

Table 7-1: Electric Vehicle Charging Stations

ADDRESS	EV CHARGING STATIONS	# OF PORTS/LEVEL 2
345 N. Beverly Drive 4 7	4	7
216 S. Beverly Drive 2 2	2	2
9510 Brighton Way 2 4	2	4
440 N. Camden Drive 2 4	2	4
450 N. Rexford Drive 2 4	2	4
438 N. Beverly Dr. - 439 N. Canon Dr. 2 4	2	4
241 N. Canon Dr. - 242 N. Beverly Dr. 2 4	2	4
9333 W. Third Street 2 4	2	4
461 N. Bedford Drive 2 4	2	4
333 N. Crescent Drive 2 2	2	2
221 N. Crescent Drive 2 3	2	3
9361 Dayton Way 2 2	2	2
450 N. Crescent Drive 4 6	4	6
321 S. La Cienega Blvd. 2 4	2	4
City Council Parking Lot 1 1	1	1
Roxbury Park Community Center	2	4
TOTAL	35	59

Source: City of Beverly Hills

³ <https://arb.ca.gov/cc/greenbuildings/pdf/tcac2018.pdf>, p 8.

Figure 7-1: City of Beverly Hills Average Daily Traffic

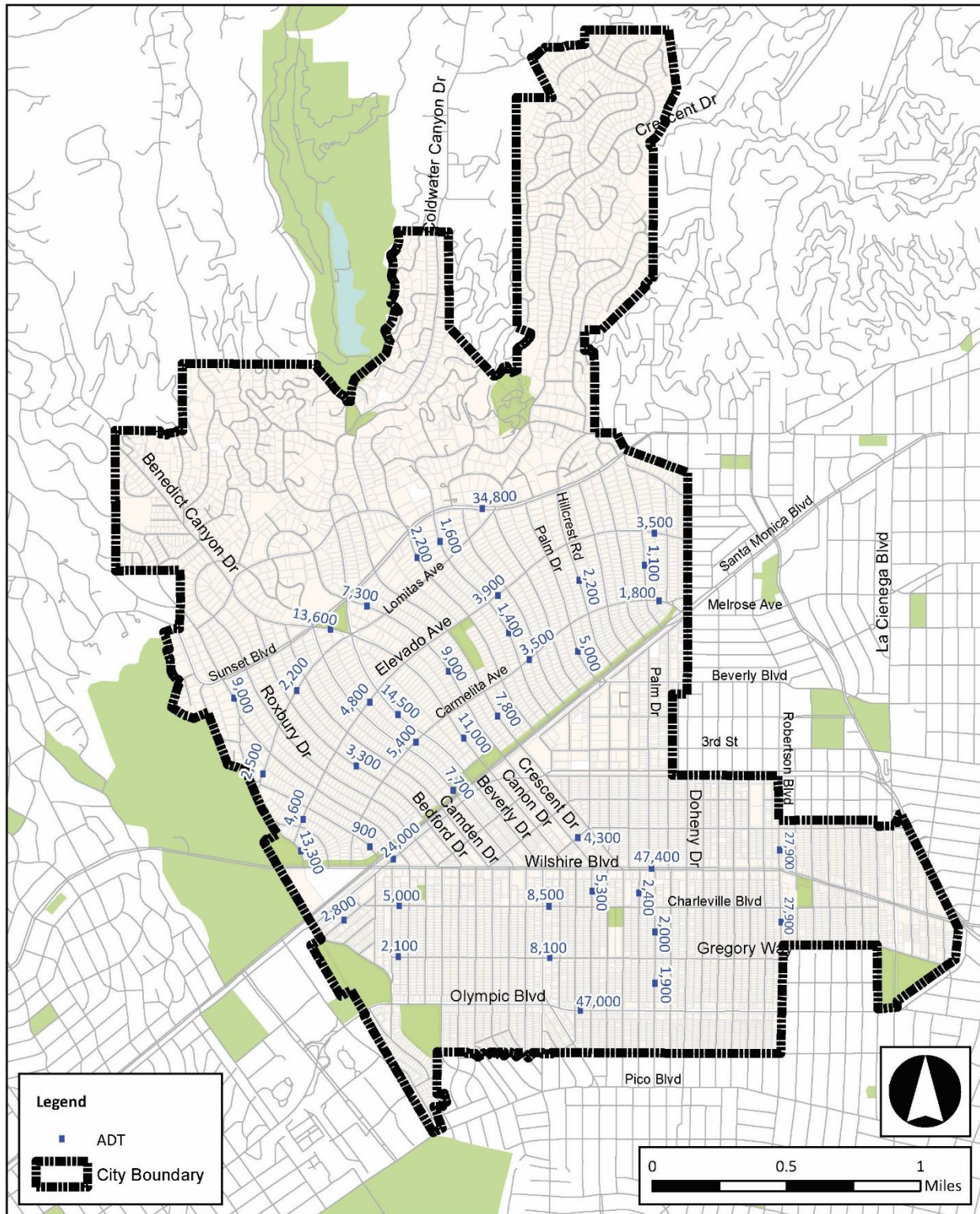
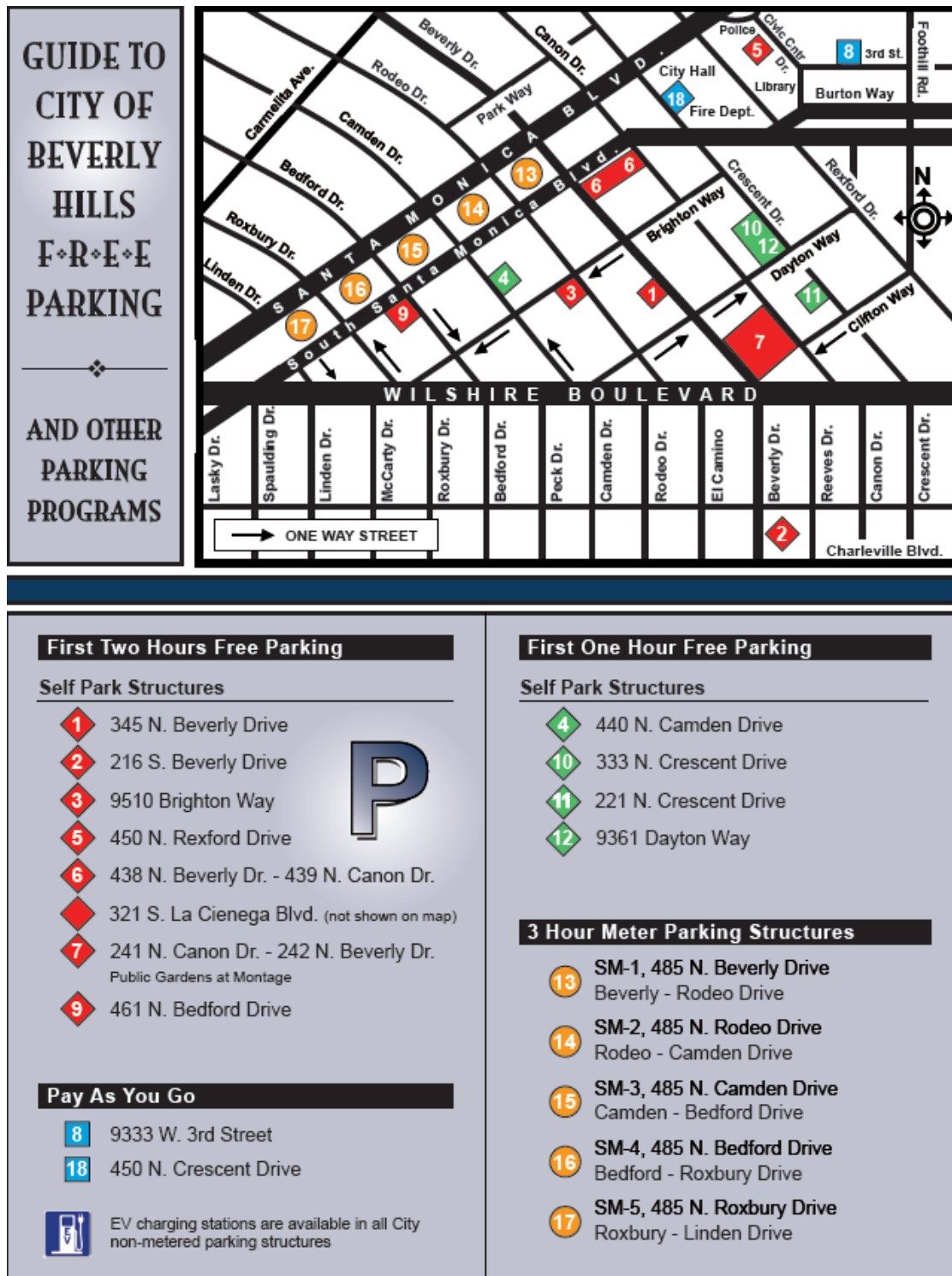


Figure 7-2: On-Street Metered Parking



Source: City of Beverly Hills

Figure 7-3: City of Beverly Hills Parking Structures



VEHICLE-INVOLVED COLLISIONS

A 2011-2016 citywide collision analysis using data from the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (TIMS), and the City’s police incident reports, identified initial observations about the collision landscape in Beverly Hills. The types of collisions occurring in the city are listed below.

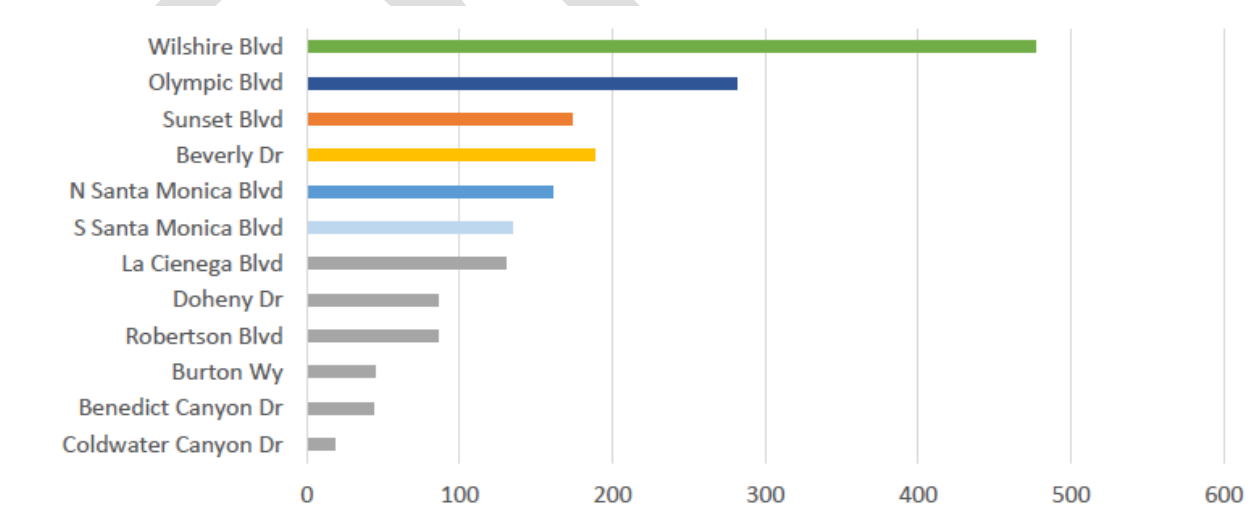
- Broadside: 34 percent
- Rear-end: 23 percent
- Sideswipe: 18 percent
- Vehicle/pedestrian: 9 percent
- Hit object: 8 percent
- Head-on: 8 percent

Figure 7-4 presents injury collision data by corridor in Beverly Hills. Slightly more than 70 percent of injury collisions over the six year period occurred on primary corridors (arterials and collectors). Wilshire Boulevard is one of the longest and busiest primary corridors within the city, and also has the highest number of collisions (19 percent of total injury collisions). Slightly more than one-third of injury collisions took place along the top three major corridors, Wilshire, Olympic, and Sunset Boulevards. Traffic congestion contributes to incidence of collisions, and these are also some of the most congested corridors in Beverly Hills. Due to the absence of collision management software, the City relies on manual tabulation of collision data.

An average of 64 percent of injury collisions were very minor with a severity of “complaint of pain”, the lowest category, and about 34 percent with the next level of severity, “minor injury”. These averages are about the same for primary corridors and local streets in the city.

The City is in the process of procuring new collision management software to better track, analyze, and report in collisions in Beverly Hills. This software will help to prioritize improvements and inform upgrades.

Figure 7-4: Total Injury Collisions by Corridor (2011-2016)



WHAT WE HEARD

In addition to the existing conditions analysis, community feedback helped to inform the recommendations in the Complete Streets Plan. During the public outreach process, 59 percent of survey respondents stated that they wanted to see improved traffic flow in Beverly Hills and 65 percent believe the plan should reduce congestion. Meeting participants identified support for left-turn restrictions to improve traffic flow and suggested better vehicle access to the Metro Purple Line stations, both in terms of parking and drop-off/pick-up. Overall, residents indicated they would like to prioritize moving traffic on arterial streets, especially commuter traffic; reducing cut-through traffic on neighborhood streets, such as through traffic calming; and reducing conflicts between drivers and other modes. More information about the public outreach process is included in **Chapter 2** and detailed public outreach summaries can be found in **Appendix E**.



WHERE WE ARE GOING

OPPORTUNITIES AND CHALLENGES

Data collection is an important tool for evaluating street conditions and project impacts. Challenges with traditional ADT collection come with the variability of traffic patterns, which may be impacted by construction, events, emergency response incidents, weather, etc., on day(s) of collection. Transportation agencies are starting to establish ongoing traffic count data collection programs using permanent count stations. Technology has progressed over the past 25 years to allow use of video detection cameras (i.e., smart sensors at traffic signals) to not only operate traffic signals, but also count vehicles, bicycles, and pedestrians. In this way, agencies know who is using their respective street segments, and they have the inputs necessary to operate the streets to assure safety for all users.

Access to “big data” and technology is a huge opportunity as it can change the way data is generated, collected, maintained, and utilized to improve traffic flow and street operations. For example, automatic traffic data collection of numbers and movements of vehicles, bicycles, and pedestrians can be documented for every hour of every day, and delivered from the street to the cloud to staff desktops. Incorporating new options for data

collection and analysis can help prioritize projects that minimize driver delay and improve the efficiency of streets. When updating its count methodology, the City should implement best practice technology to count multi-modal road users.

The expansion of autonomous vehicle technology (discussed in detail in **Appendix C**) has the potential to make streets more efficient and safer as the human component in driving is minimized. It is predicted that autonomous vehicles will reduce collisions and could provide a point-to-point supplement to transit. One significant challenge with future autonomous vehicles is properly managing the curb space to allow loading/unloading to occur, which the city already experiences today with Transportation Network Companies (TNCs), like Uber and Lyft. Another challenge is minimizing the time autonomous vehicles drive with few or no occupants, an issue also seen with TNCs. However, with appropriate regulation by public policies, autonomous vehicles have the potential to significantly minimize conflicts at the curb, reduce parking demand, and reduce vehicle miles traveled (VMT). Installing the infrastructure needs to accommodate autonomous vehicles is a first step to making them a success in Beverly Hills.



Electric vehicle use (discussed in detail in **Appendix C**) has also expanded significantly, which can improve air quality and the environment as these vehicles have no direct emissions. A greater density of electric vehicle charging infrastructure would make electric vehicles a more viable option for a wider range of vehicle trips. The construction of the Metro Purple Line Extension presents an opportunity for cleaner commuting in the city, as well; however, appropriate traffic mitigations and traffic calming should be implemented during construction to minimize negative impacts to residents.

RECOMMENDED INFRASTRUCTURE AND PROGRAMS

The recommendations in this plan to enhance vehicle infrastructure are aimed at (1) making the roadways more efficient for drivers through improvements to major corridors and (2) making neighborhoods more livable through neighborhood traffic management and safer streets. Potential improvements for vehicles are not currently mapped as they are not concentrated onto specific corridors, can be applied citywide, and/or require neighborhood-level targeted community outreach.

The City's current work to upgrade the signal system will help make streets more efficient, as it will allow for the optimization of signal operations, and provide options for better data collection and the implementation of future technologies, including autonomous vehicles. To further prepare for autonomous vehicles and address existing issues with TNCs, cities are starting to explore digitizing the curb and installing shared use mobility zones to manage the curb based on demand. A pilot program, such as the example shown at on the next page, would help the City determine what types of curb regulations and zones might be needed. The following are examples of curb space management strategies implemented in other cities to help better organize uses and address demand:



- Flexible curb zones to change curb restrictions based on demand or time of day

- Geo-fencing of drop-off and pick-up for TNCs like Uber and Lyft
- Off-peak loading to reduce deliveries during peak travel periods

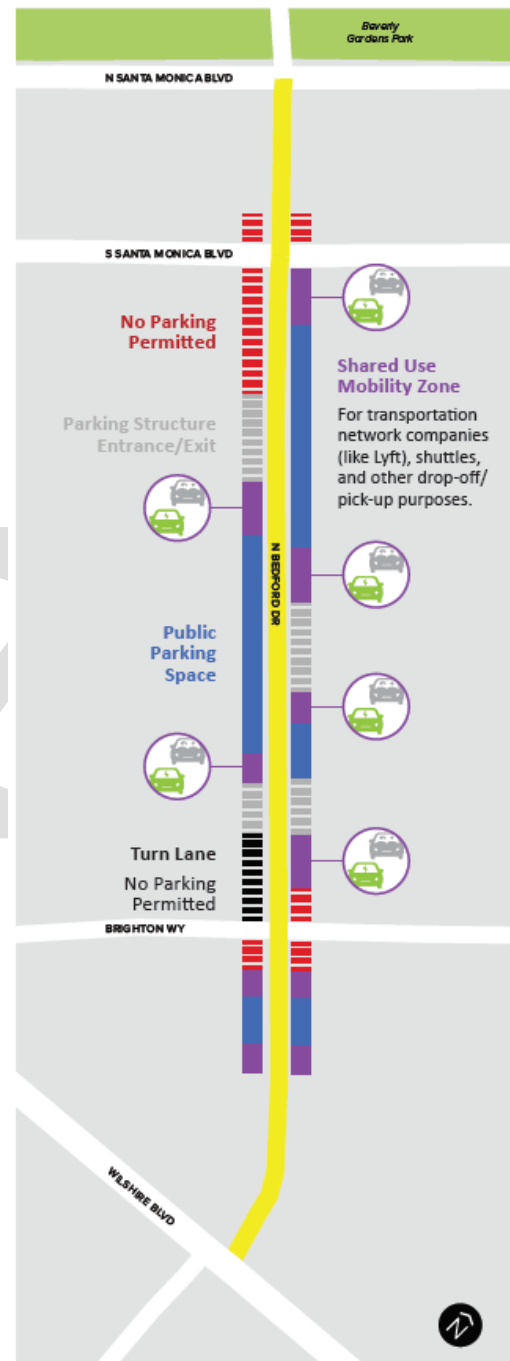
When available parking is not visible, such as when it is in off-street lots, it can also make streets less efficient because motorists drive around searching for on-street parking. Using dynamic signs that show real-time availability of parking in lots can make the stalls more visible to the motorists and reduce traffic congestion. Appropriately pricing on-street parking or using variable pricing based on demand can help reduce congestion by using parking fees to encourage other travel modes during congested hours. Car share programs in residential or commercial areas have been shown to reduce car ownership and encourage car-free and car-light lifestyles, which could also lead to improved congestion.

The City could consider supporting a regional congestion pricing program, which is a traffic management strategy where drivers are charged during peak hours or in locations with high demand in an effort to reduce congestion. Transportation professionals widely agree that congestion pricing is one of the only effective means of reducing traffic because it uses supply and demand principles to appropriately price roads.

Adopting a more robust Transportation Demand Management (TDM) ordinance could also encourage commuting by walking, biking, taking transit, and carpooling/vanpooling to reduce congestion. As a first step, the City should review the existing ordinance to analyze the impact of current TDM and trip reduction measures, and then revise the TDM measures and incentives for public and private sectors as appropriate to be in line with the goals of the Complete Streets Plan. This could help the City encourage employers to provide transit/active transportation benefits. Evaluation of TDM measures through performance metrics, a mode shift audit (which could also inform the City Council's priority setting exercise and the Traffic and Parking Commission), or data obtained through the annual City employee commute mode survey managed by the Air Quality Management District could help determine their success. The City could also review and revise its commute benefits to be in line with the goals of the Complete Streets Plan, such as by providing incentives to City employees to use transit/active modes (also discussed in **Chapter 6**).

When roadways do not operate efficiently or when there is heavy construction in an area, congestion can spill into residential neighborhoods as drivers look for less congested routes. In conjunction with operational improvements, the City should explore the use of traffic calming devices in neighborhoods to help slow vehicle speeds, reduce cut-through traffic, and make communities more livable. Examples include:

- Speed humps/lumps or tables

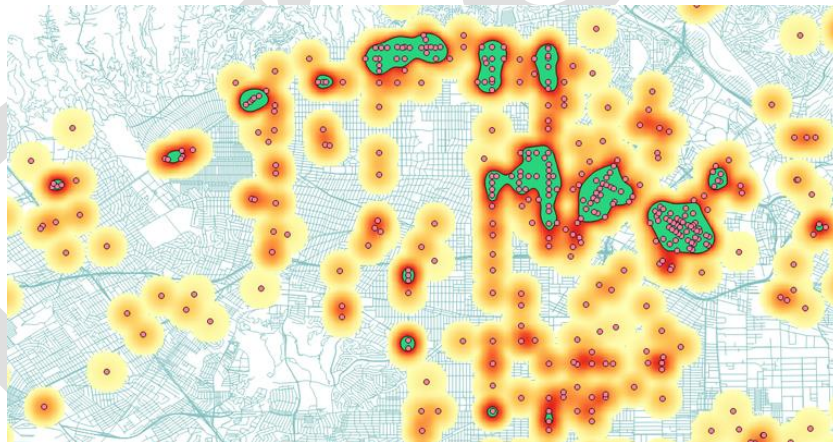


- Chokers or chicanes
- Raised intersections
- Neighborhood traffic circles
- Travel lane narrowing or roadway reconfiguration
- Roadway closures (full or partial)
- Diagonal diverters, forced turn barriers, or median barriers
- Turn restrictions
- Speed legends
- Speed feedback signs



These engineering measures can help slow speeds and justify speed limit reductions in line with State policy. The City currently cannot reduce speed limits unless a speed survey shows that most drivers are already traveling at that speed.

The City can also help make neighborhoods more livable by improving safety throughout Beverly Hills. For example, the Beverly Hills Police Department (BHPD) is in the process of purchasing a new software program to better manage and track collisions across all modes: bicycle, pedestrian, vehicle, and new mobility devices. After that program is acquired, the Transportation Division should partner with BHPD to review collision reports, track collisions, and improve collision hot spots through engineering designs, especially those involving injury collisions and resulting in collision trends. This analysis could be used to help BHPD target enforcement efforts, along with community member suggestions on enforcement priorities, and begin exploration of methods to evaluate responses to enforcement priorities. The Transportation Division should biannually report on the status of collision reduction efforts in Beverly Hills to expand on monthly reports BHPD provides, and continue to deploy improvements at the most critical locations.



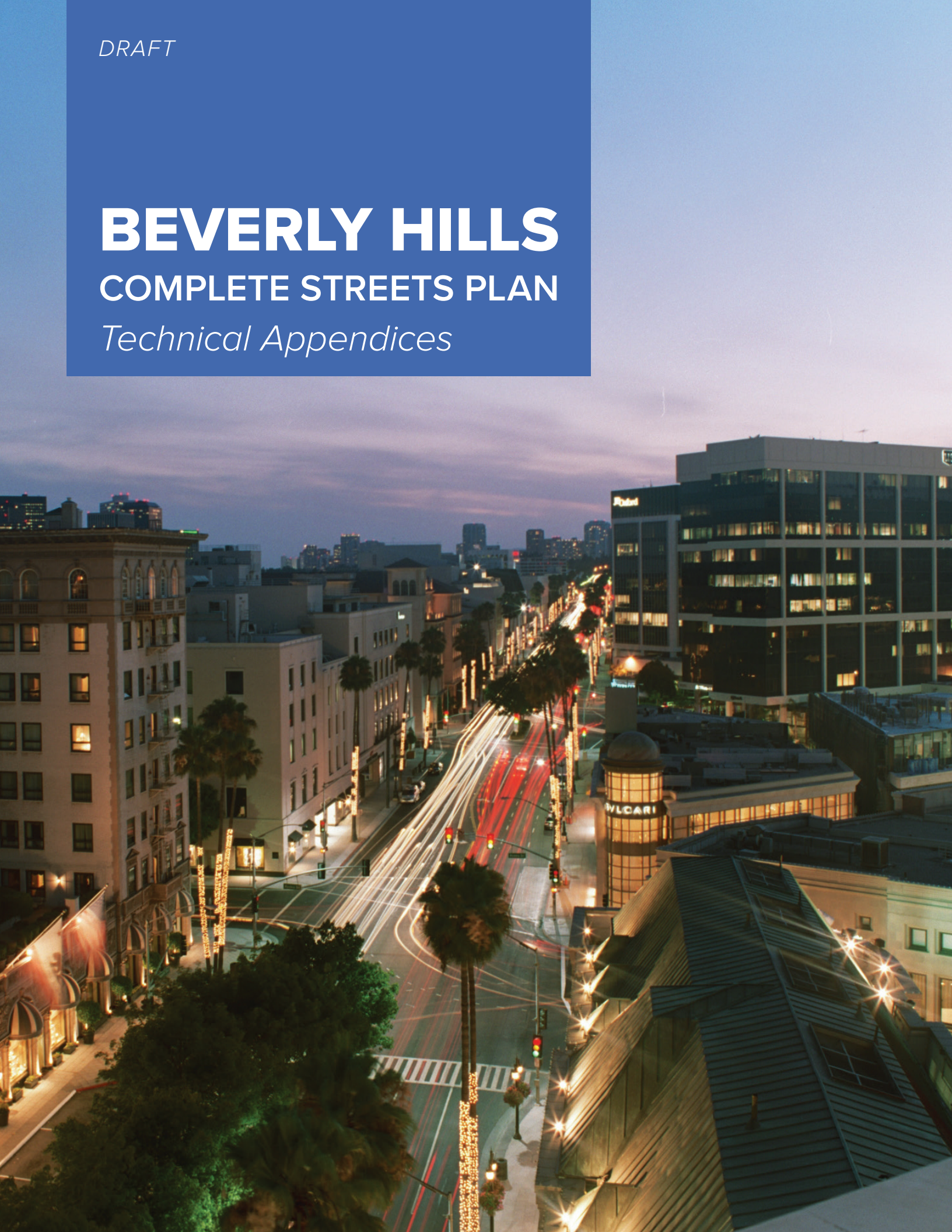
The City could improve air quality and livability by working to expand electric vehicle charging infrastructure at the same rate of increased use of electric vehicles and/or adopt supportive policies, like afterhours access to private lots and a reduction in minimum parking requirements in exchange for public electric vehicle station installation. Another example, Intelligent Transportation Systems (ITS), are a broad group of technologies that provide information and automation for the transportation industry to deliver benefits of improved safety, mobility, and environmental outcomes for travelers. Agencies across the United States have deployed or are testing ITS technologies such as changeable message signs, advisory speed limits, and adaptive traffic signal timing. In addition, automated enforcement measures can help reduce red light violations and control speeding without diverting law enforcement resources from other areas. The City should explore how increased use of these devices could improve conditions in Beverly Hills.

DRAFT

BEVERLY HILLS

COMPLETE STREETS PLAN

Technical Appendices



APPENDIX A: POLICY SETTING

The Complete Streets Plan complements and expands on existing policies established by the City of Beverly Hills, which are included in the City's General Plan, the 2009 Beverly Hills Sustainable City Plan, the City's Bicycle Master Plan, the 2012 Bicycle Pilot Feasibility Analysis, and the City's Municipal Code, as well as policies established by overlapping governmental jurisdictions. This section presents a summary of existing policies and plans that the Complete Streets Report is consistent with, and a discussion of State and Federal policies that could be constraints for implementation.

2010 GENERAL PLAN UPDATE

The City's 2010 General Plan Update is the long-term vision for growth in Beverly Hills. It discusses increasing traffic congestion and costs for services, and a push toward reduced resource consumption, pollution, and greenhouse gas emissions. A number of overarching themes listed in the General Plan Update's introduction – such as growing smarter, reducing carbon footprints, and addressing global climate change – are consistent with the concept of complete streets, which are defined in the document as:

Streets that include facilities and designs that enable safe access for all users (i.e., pedestrians, bicyclists, motorists and transit riders) of all ages and abilities with characteristics such as a comprehensive, integrated, and connected network; balanced design; variety of uses and activities that create a varied streetscape; design that relates well to bordering uses and allows for continuous activity; pedestrian and biking facilities that promote safety and maximize access to bordering uses; aesthetically designed street lights that provide sufficient illumination of sidewalks; consistent landscaping that includes street trees and landscaped medians and sidewalks; sustainable design that minimizes runoff, minimizes heat island effects, responds to climatic demands, and conserves scarce resources; and well-maintained facilities.

The Beverly Hills Complete Streets Plan provides guidance that complements the adopted goals and policies outlined in the City's General Plan.

CIRCULATION ELEMENT

The Circulation Element of the General Plan Update describes the regional transportation setting for all modes, and sets goals and policies for the “safe and efficient” use of the City's circulation system. This element emphasizes multimodal mobility and regional connectivity, and stresses that functional traffic patterns hinge on coordinated land use and transportation development where alternatives to driving are realistic options for the community. The 2010 Circulation Element Amendment puts greater emphasis on walking, biking, and transit and regional connectivity, which sets a policy groundwork for Complete Streets initiatives.

In 2001, the City supported a Neighborhood Traffic Management Plan (NTMP) pilot that tested the viability of traffic calming measures for the neighborhoods between Wilshire and Olympic Boulevards, and Beverly and Doheny Drives. Goal 3 of the 2010 Circulation Element Update calls for the implementation of a NTMP with the goal to improve community character and quality of life.

Goals 7 and 8 respectively are for a “safe and comfortable pedestrian environment that results in walking as a desirable travel choice” and an “integrated, complete, and safe bicycle system to encourage bicycling within the City.”

OPEN SPACE ELEMENT

The Open Space Element of the General Plan is the principal guide for “maintenance and conservation of natural resources, open space, and recreation and park lands in the City of Beverly Hills.” The Open Space Element evaluates the demand for open space and recreational facilities in the City and uses this research “as

a basis for program priorities and recommendation for changes.”

Goals and policies from the Open Space Element related to and consistent with the Complete Streets Plan include the following:

- OS 7 Improved air quality:
 - OS 7.1 Promote transit ridership
 - OS 7.3 Encourage City employees to use rideshare for their daily work commute
 - OS 7.4 Encourage the use of zero-emission and low emission vehicles
- OS 9 Park and recreation preservation
 - OS 9.2 provide adequate parking supply around Roxbury and La Cienega parks
- OS 12 Use of recreation resources
 - OS 12.4 Development of a jogging trail/route system. The City should consider redesigning certain intersections to improve safety and encourage additional uses
 - OS 12.5 Development of a bikeway/route system, which can serve both transportation and recreation needs

The La Cienega Park and Recreation Complex is currently being studied to determine which amenities and activities residents might like to see included in the future. This public engagement project is seeking feedback and ideas from current park and facility users, stakeholder groups, and residents through focus groups, a community survey, interviews, community presentations, and targeted outreach. One possible approach to the OS 9.2 policy to provide adequate parking supply around the park may be to reduce demand at the park by improving pedestrian connectivity with a pedestrian/bicycle bridge over La Cienega Boulevard.

The Open Space Element also includes a Bicycle Master Plan, which is discussed in detail in **Section 2.2**.

IMPLEMENTATION PROGRAM

The Implementation Programs chapter lists programs that shall be used to implement the goals and policies described in the General Plan. *Program 3.7 Circulation, Mobility, and Parking* indicates that streets shall be improved to complete streets standards. Other actions within this program include the following:

- Implementation of Intelligent Transportation Systems (ITS)
- Development of a Parking Master Plan
- Development and implementation of a Bicycle Master Plan
- Monitor and improvement of traffic conditions as necessary
- Work with Metro on the subway extension and to improve transit ridership
- Expand transportation demand management programs (TDMP)
- Development of a Neighborhood Traffic Management Program (NTMP)

BICYCLE MASTER PLAN

The Beverly Hills Bicycle Master Plan is a sub-element to the Open Space Element in the General Plan Update. This sub-element identifies the City’s desire to provide bicycle connectivity between major commercial, recreational, educational, and employment facilities and land uses via the shortest safest possible route.

The City's original Bicycle Master Plan, adopted in 1977 and shown in **Figure A-1**, recommended a 22-mile bikeway system that could accommodate recreational and transportation needs. The Bicycle Master Plan was amended in 2010 along with the General Plan Update, detailing the existing bikeways in the City and providing recommendations for development of a bikeway system. The document also calls for the implementation of the Traffic Segregation Plan, which calls to reduce cut-through traffic on local roadways, in order to have a more fluid bikeway system with fewer stop signs. If fully implemented, the system "would connect the major commercial, recreation, educational and employment facilities in the City by the shortest safest possible routes." The Bicycle Master Plan lists three objectives:

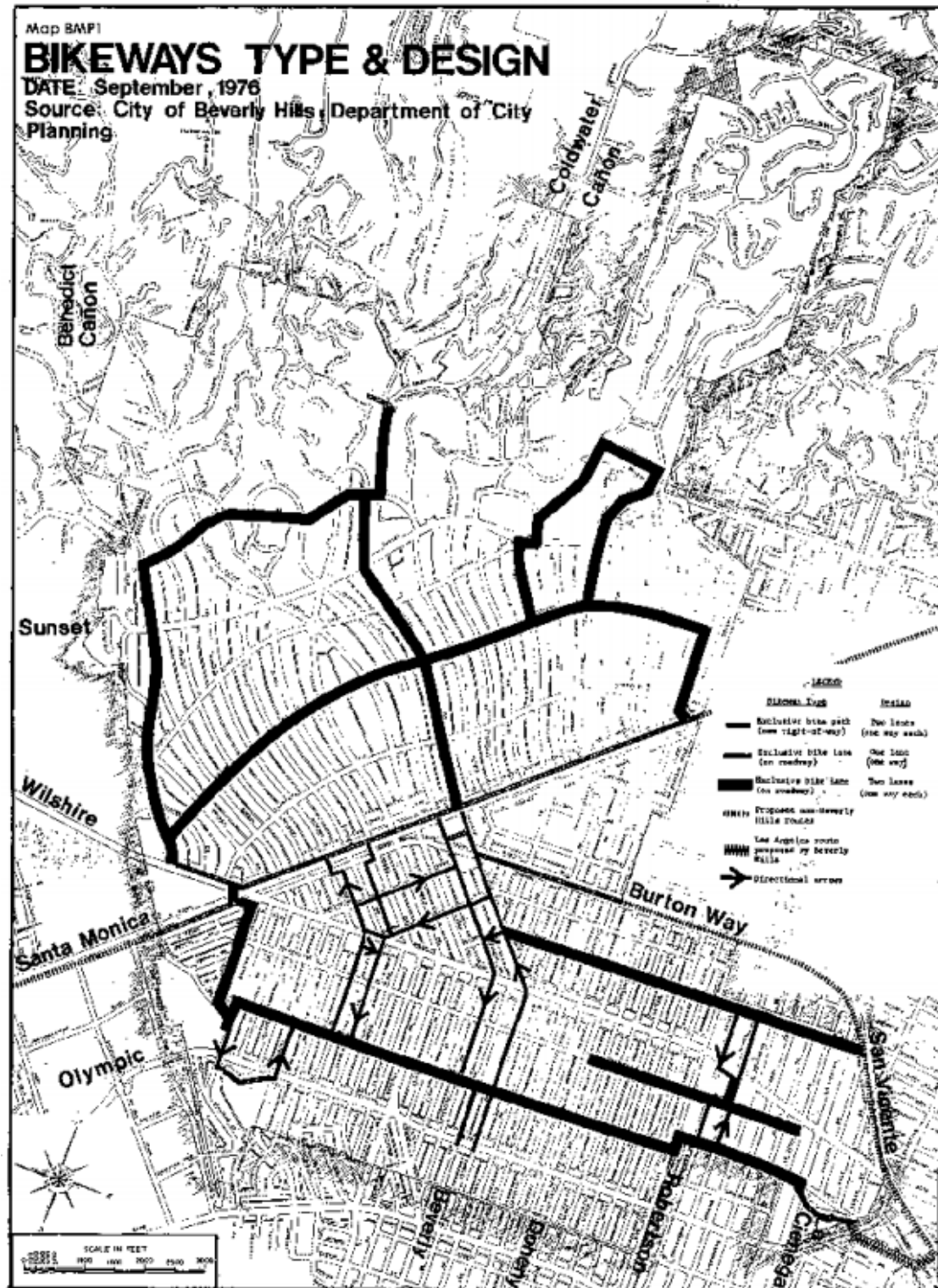
- Reevaluate/build upon City's Goals and policies associated with bikeways
- Recommend a bikeway plan responsive to long-range needs of various users
- Recommend programs for acquisition, development, and use of bikeways to meet the City's needs

The following facilities are recommended for further evaluation in the Bicycle Master Plan and were considered during the development of the Complete Streets Report. Not all recommendations were carried over into the Complete Streets Plan as indicated with asterisks below.

- Separated Bike Paths
 - Beverly Gardens Park*
 - Burton Way median strip*
 - Sections through Roxbury, La Cienega and Coldwater Canyon Parks, and the City Hall grounds*
- On-Street Bike Facilities
 - South of Santa Monica Boulevard
 - On-street bikeways (may require removing parking)
 - Development of two-way couplets on adjacent parallel streets (may potentially not impact parking)
 - North of Santa Monica Boulevard
 - Bike lanes adjacent to parked cars
 - Business Triangle
 - Bikeways along one side of mid-block alleys and/or on left side of one-way streets (parking and loading in alleys limited to one side so that bikeway can be accommodated on the other side of the alley)*
 - Connect to bike systems proposed or developed by neighboring jurisdictions

Bike paths through parks and through City Hall are not included in the Beverly Hills Complete Streets Plan recommendations because of potential conflicts with pedestrians and lack of available space to provide paths for bicyclists only. Instead, high quality bikeways are recommended on adjacent streets. The plan also does not include a recommendation for a bike path along Beverly Gardens Park because North Santa Monica Boulevard now includes high visibility bike lanes adjacent to the park.

Figure A-1: Bicycle Master Plan



The Complete Streets Plan also does not include a recommendation for a bike path in the Burton Way median due to the inconvenience it would create for bicyclists to access, as well as potential conflicts with vehicles turning. Instead, this plan recommends upgrading the existing bike lanes on Burton Way to make them more comfortable for bicyclists on the street.

In addition, bikeways in alleys through the Triangle are not included due to potential conflicts with trucks, visibility issues, and reduced accessibility to key destinations. Instead, a robust network of on-street bikeways is recommended to provide bicyclists with a level of facilities comparable to what is provided to drivers.

BICYCLE FEASIBILITY STUDY

The 2012 Bicycle Feasibility Study evaluated the potential implementation of bikeways identified in the 2010 Bicycle Master Plan (discussed above) in accordance with adopted design standards by the City of Beverly Hills. Recommendations are presented for six corridors, taking into account traffic elements such as roadway speeds, average daily traffic (ADT), parking, and roadway right-of-way. **Figure A-2** shows the recommended corridors for bicycle improvements and **Table A-1** summarizes the details of each.

Figure A-2: Bicycle Facilities – Recommended Corridors



Source: Bicycle Feasibility Study, Fehr & Peers 2012

Table A-1: 2012 Bicycle Feasibility Study - Recommended Bicycle Facilities

LOCATION	FACILITY TYPE	DESIGN DETAILS
Burton Way	Class II bike lanes	Restripe roadway (in both directions) to provide: <ul style="list-style-type: none"> • Two 11' travel lanes • 13' shared parking/bike lane allowing 7-8' for parking and 5-6' for bicyclists
Charleville Blvd	Class III bike route	<ul style="list-style-type: none"> • Designated bike route signage • Sharrow striping
Carmelita Ave	Class III bike route	<ul style="list-style-type: none"> • Designated bike route signage • Sharrow striping
Crescent Dr (north of Santa Monica Blvd)	Class II bike lanes	Retain existing striping
Crescent Dr (Santa Monica Blvd to Charleville Blvd)	Class III bike route	<ul style="list-style-type: none"> • Designated bike route signage • Sharrow striping
Reeves Dr (Charleville Blvd to Olympic Blvd)	Class III bike route	<ul style="list-style-type: none"> • Designated bike route signage • Sharrow striping
Beverly Dr (north of Santa Monica Blvd)	Class II bike lanes	Restripe roadway (in both directions) to provide: <ul style="list-style-type: none"> • One 11' travel lane per direction • One 7' parking lane per direction • One 12' lane for bicyclists per direction, which include a 6' cycling area and striped buffers of 3' each to separate bicyclists from both parking and travel lanes
Beverly Dr (south of Santa Monica Blvd)	Class III bike route	<ul style="list-style-type: none"> • Designated bike route signage • Sharrow striping • Diagonal parking

It's important to note that the 2012 study was completed before the inclusion of Class IV protected bike lanes in Caltrans facility typology, and before widespread use of striping buffers to further separate bicyclists from motorists. The Complete Streets Plan revisits the designations listed in **Table A-1** above and recommends upgraded facility types where appropriate and feasible, as well as supplemental traffic calming measures and pedestrian improvements.

All corridors recommended in the 2012 study are carried over into the Complete Streets Plan with the exception of Reeves Drive, which is replaced by Crescent Drive to connect with the recommended bikeway on Crescent Drive north of Wilshire Boulevard. Reeves Drive between Wilshire Boulevard and Charleville Boulevard remains in the plan as a first/last mile connection to the Metro Purple Line Wilshire/Rodeo station.

SUSTAINABLE CITY PLAN

In 2009, the City adopted its Sustainable City Plan to combat climate change, improve air quality, and develop a sustainability strategy. The plan defines sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." To the City of Beverly Hills, this involves maintaining a strong economy, promoting social equity, and ensuring sensitivity to the natural environment. The following are the guiding principles of the Sustainable City Plan that will help the City with decision-making and move towards sustainability:

- City policy will be guided by a long-term vision of sustainability
- The City will lead by example
- The City recognized that environmental, economic, and social equity are mutually dependent

- Economic, environmental and social impacts will be key considerations in City policy and actions
- The City will inform and inspire all community members to take action
- The City recognizes that partnerships are essential to achieving a sustainable community
- The City recognizes its linkage with the regional, national, and global community

A significant portion of the City's goals and policies that promote sustainability both directly and indirectly involve transportation and relate to the Complete Streets Plan. Topic area #5 of the Sustainable City Plan's list of goals highlights the importance of promoting an energy efficient, walkable, and bikeable community that reduces traffic congestion and its negative effects while encouraging alternative forms of travel.

MUNICIPAL CODE

The City of Beverly Hills Municipal Code includes regulations for pedestrian and bicycle use. The Code includes policies that seek to encourage and accommodate pedestrian and bicycle activity, as well as restrict use along certain thoroughfares. Relevant policies are listed below in **Table A-2**.

Table A-2: Municipal Code Policies Related to Complete Streets

SECTION	POLICY
10-3-1653	Defines "pedestrian oriented areas" within the City restricting land uses to promote pedestrian usage. There are six designated pedestrian oriented areas within the City: <ul style="list-style-type: none"> • Rodeo Drive from South Santa Monica Boulevard to Wilshire Boulevard • North Beverly Drive from South Santa Monica Boulevard to Wilshire Boulevard • South Beverly Drive from Wilshire Boulevard to Gregory Way • North Canon Drive from South Santa Monica Boulevard to Wilshire Boulevard • Brighton Way from Wilshire Boulevard to North Canon Drive • Dayton Way from Wilshire Boulevard to North Canon Drive
5-6-801	The operator of a bicycle shall not ride on the public sidewalk in any business district, where "business district" is defined in section 235 of the California Vehicle Code (CVC) as: <i>A portion of a highway and the property contiguous thereto (a) upon one side of which highway, for a distance of 600 feet, 50 percent or more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sides of which highway, collectively, for a distance of 300 feet, 50 percent or more of the contiguous property fronting thereon is so occupied.</i>
5-6-802	It is considered unlawful to operate skateboards, roller skates, in-line skates, and scooters on the grounds of any public school. However, the code does not explicitly prohibit bicycles on public school grounds.
8-1-104	Riding a bicycle (or similar type of device) is prohibited within parks and recreational facilities except where specially authorized by posted signs.
10-7-301	For non-residential developments with a total area greater than or equal to 25,000 square feet, the developer is required to provide bicycle racks (or other secure bicycle parking) to accommodate four (4) bicycles for the first 50,000 square feet of development. Further, accommodation for one (1) additional bicycle is required for each additional fifty thousand (50,000) square feet of nonresidential development.
18-O-2757	Temporarily bans dockless bicycles and scooters from being placed in any public right-of-way or public property and prohibits operators from offering these devices in Beverly Hills.

At the January 10, 2019 Traffic and Parking Commission Special Meeting (discussed in detail in Chapter 6), City staff presented an option to consider revising the City's Municipal Code to allow bicyclists on some sections of commercial sidewalks as a way to reduce vehicle/bicyclist conflicts and improve bicycle access until infrastructure was built out, using Santa Monica Boulevard in the City of West Hollywood as an example: when a bicycle lane is present, sidewalk riding is prohibited, but where there isn't adequate street width to accommodate on-street bikeways, sidewalk riding is permitted. Revising the code is not included as a formal

recommendation in this plan due to concern of the Commission and community with regards to bicycle/pedestrian conflicts; however, allowing sidewalk riding on a limited case-by-case basis on commercial corridors where a gap in the first/last mile network may be present, such as on Wilshire Boulevard near the future La Cienega Metro Purple Line station, may be considered.

LOS ANGELES COUNTY POLICIES

METRO COMPLETE STREETS POLICY

In 2014, the Los Angeles County Metropolitan Transportation Authority (Metro) adopted a Complete Streets Policy to guide multimodal design in Los Angeles County. The policy identifies opportunities and actions for Metro to support local complete streets implementation with partner organizations and agencies. Per the policy, Metro requires all jurisdictions to adopt a complete streets policy to be eligible for Metro Capital Grant funds. The goals of Metro's Complete Streets Policy include:

- Maximize the benefits of transit service and improve access to public transit by making it convenient, safe, and attractive for users
- Maximize multi-modal benefits and efficiencies
- Improve safety for all users on the transportation network
- Facilitate multi-jurisdictional coordination and leverage partnerships and incentive programs to achieve a complete and integrated transportation system that serves all users
- Establish active transportation improvements as integral elements of the countywide transportation system
- Foster healthy, equitable, and economically vibrant communities where all residents have greater mobility choices¹

Implementation steps set forth by the Policy include:

- **Design:** Design and evaluate projects with the latest design standards and options
- **Network/Connectivity:** Work with partner agencies and local jurisdictions to incorporate complete streets infrastructure with the goal of creating a larger connected network of facilities across jurisdictional boundaries and corridors that can accommodate, as well as anticipate, the future demands of bicyclists and pedestrians. Adjacent intersections, interchanges, and bridges shall accommodate bicyclists and pedestrians in a manner that is safe and accessible.
- **Implementation Next Steps:** Ensure consistency with other relevant plans and engage stakeholders
- **Performance Measures:** Develop performance metrics and track progress toward achieving sustainability policies and priorities, including complete streets implementation¹

METRO FIRST/LAST MILE STRATEGIC PLAN

Transit travelers often must first walk, bike, or drive themselves to and from the nearest station or stop. This is referred to as the first and last mile of the user's trip, or "first/last mile" (FLM) for short. Bus and rail services often form the core of a trip, but users complete the first and last portion on their own.

The Metro FLM Plan is an approach for identifying barriers and planning and implementing improvements for the first/last mile portions of an individual's journey. It provides an adaptable vision for addressing FLM improvements in a systematic way, and results in data and information to justify taking those actions. FLM

¹ http://media.metro.net/projects_studies/sustainability/images/policy_completestreets_2014-10.pdf

expands the transit experience, improves safety, and enhances visual aesthetics. Examples of FLM improvements include the following:

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

METRO LONG RANGE TRANSPORTATION PLAN

Metro is currently working to update its Long Range Transportation Plan (LRTP) that was last adopted in 2009. Once approved by the Metro Board of Directors, the LRTP serves as a blueprint for how Metro will spend anticipated revenues in the coming decades to:

- Operate and maintain our current and planned system
- Continue to deliver on our commitments from the 2009 LRTP
- Identify any new projects, programs, or initiatives

METRO ACTIVE TRANSPORTATION STRATEGIC PLAN

The Active Transportation Strategic Plan (Plan) is Los Angeles Metro's effort to identify strategies to increase walking, bicycling and transit use in Los Angeles County. It presents policy and infrastructure recommendations that will require collaboration between Metro, local and regional agencies, and other stakeholders to ensure implementation. The Active Transportation Strategic Plan will focus on improving first and last mile access to transit and propose a regional network of active transportation facilities, including shared-use paths and on-street bikeways, and develop a funding strategy to get them built.

The funding strategy should be closely monitored by the City of Beverly Hills, as future regional investments should be attracted to the City's Purple Line station areas for improved FLM connectivity.

STATE POLICIES

The Caltrans Complete Streets Implementation Action Plan 2.0 (CSIAP 2.0) establishes the California Department of Transportation's complete streets policy framework and provides an overview of Caltrans' complete streets implementation efforts. The plan defines a complete street as:

A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility.²

The Plan identifies the benefits of complete streets as:

- Increased Transportation Choices
- Economic Revitalization
- Improved Return on Infrastructure Investments
- Livable Communities

² http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/CSIAP2_rpt.pdf

- Improved Safety
- More Walking and Bicycling
- Greenhouse Gas Reduction and Improved Air Quality³

The basis for the plan is the California Complete Streets Act (AB 1358) of 2008, which requires cities and counties to include complete streets policies in their general plans to provide safe roadway design for all users. It also complements an existing Caltrans policy (California Department of Transportation revised version of Deputy Directive 64, an internal policy document that explicitly embraces Complete Streets as the policy covering all phases of state highway projects, from planning to construction to maintenance and repair) to “fully consider the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products.”⁴

The State of California also administers the California edition of the Manual on Uniform Traffic Control Devices (MUTCD), the California Vehicle Code, ADA Accessibility Code, and related programs that dictate minimum standards. At the City’s discretion, minimum standards may be exceeded, but the standards presented in these documents limit the City’s ability to install devices. For example, devices like pedestrian hybrid beacons must meet specific warrants to justify installation per the MUTCD.

FEDERAL POLICIES

In 2010, Secretary of Transportation Ray LaHood and the United States Department of Transportation (USDOT) issued the Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations. The statement calls for transportation projects to incorporate “safe and convenient walking and bicycling facilities.”⁵ Recommended actions include:

- Considering walking and bicycling as equals with other transportation modes
- Ensuring that there are transportation choices for people of all ages and abilities, especially children
- Going beyond minimum design standards
- Integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges
- Collecting data on walking and biking trips
- Setting mode share targets for walking and bicycling and tracking them over time
- Improving non-motorized facilities during maintenance projects⁶

In 2018, the National Complete Streets Coalition updated its Complete Streets framework, which identifies 10 elements of an ideal complete streets policy and a tiered point system to benchmark local policies. The elements, listed below, provide a national model for best practices of new and revised policies. The Beverly Hills Complete Streets Plan incorporates these policies into its recommendations.

- **Vision and intent:** Includes an equitable vision for how and why the community wants to complete its streets. Specifies need to create complete, connected, network and specifies at least four modes, two of which must be biking or walking.

³ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/policy_accom.cfm

⁴ <https://www.smartgrowthamerica.org/app/legacy/documents/cs/media/cs-ca-pressrelease.pdf>

⁵ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/policy_accom.cfm

⁶ Ibid

- **Diverse users:** Benefits all users equitably, particularly vulnerable users and the most underinvested and underserved communities
- **Commitment in all projects and phases:** Applies to new, retrofit/reconstruction, maintenance of, and ongoing projects
- **Clear, accountable expectations:** Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to being granted
- **Jurisdiction:** Requires interagency coordination between government departments and partner agencies on complete streets
- **Design:** Directs the use of the latest and best design criteria and guidelines, and sets a time frame for their implementation
- **Land use and context sensitivity:** Considers surrounding communities' current and expected land use and transportation needs
- **Performance measures:** Establishes performance standards that are specific, equitable, and available to the public
- **Project selection criteria:** Provides specific criteria to encourage funding prioritization for complete streets implementation
- **Implementation steps:** Includes specific next steps for policy implementation⁷

EXAMPLE COMPLETE STREETS POLICIES

The following summaries of complete streets plans and policies from other cities in Los Angeles County were used as examples to inform the development of the Beverly Hills Complete Streets Plan.

CITY OF SANTA MONICA

Adopted in 2010 (last amended in 2015), the City of Santa Monica's Land Use and Circulation Element (LUCE) is a key component of the City's General Plan. The award-winning plan establishes a vision to maintain the character of the city while enhancing neighborhoods, managing the transportation system, and encouraging residential development in a sustainable manner. Consistent with the vision, a primary goal of the LUCE is to create complete neighborhoods where residents can walk and bike to a mix of uses and local services, which are linked by green connections and open space. Transit-oriented development is also encouraged especially along the Expo Line corridor and requires the replication of the city's grid system, improved connectivity among neighborhoods, enhancement of bike facilities, and creation of wide, welcoming sidewalks and pedestrian amenities. LUCE establishes a "No Net New Vehicle Trips" policy to improve access and mobility while accommodating modest growth and development. The LUCE's 20-year vision reflects a six-year community engagement process and includes phasing and monitoring.

Adopted in 2011, the Santa Monica Bike Action Plan establishes priorities to guide and coordinate the implementation of bicycle programs and the LUCE bicycle network to encourage residents, employees, and visitors to make bicycling a transportation choice. Santa Monica's Bike Action Plan establishes a five-year implementation strategy and 20-year vision to implement bike programs and bikeway improvements that can be used by bicyclists of all experience levels. The plan embraces the complete streets concept and builds upon existing facilities within a multimodal street network, providing roadway allocation and visibility for bicyclists while also accounting for all road users. Safe bicycling is also encouraged on complete streets through education, awareness, and encouragement efforts with business, employers, and schools.

⁷ <https://smartgrowthamerica.org/resources/elements-complete-streets-policy/>

The 2016 Santa Monica Pedestrian Action Plan establishes a vision for overall pedestrian well-being, creates policies to enhance the pedestrian environment, and identifies a coordinated set of practices, programs, and projects. Santa Monica's Pedestrian Action Plan draws from empirical analyses and community engagement to recommend citywide and location-specific actions that will improve safety, access to transit, and overall walkability of the community. The analyses include a review of reported collisions, existing and future supply and demand, health and sustainability, as well as a transit walkshed analysis. Leveraging existing policies and community and fiscal resources, the Plan recommends changes in business practices as well as policy, program, and project actions that will enhance the culture of walking in Santa Monica. A review of infrastructure best practices provides the foundation for a countermeasure selection guide and toolkit of strategies that reflect project goals, street context, and local collision patterns. The toolkit informs high priority safety and transit access projects to be recommended for 5, 10, and 20-year budget planning.

CITY OF WEST HOLLYWOOD

The West Hollywood Pedestrian & Bicycle Mobility Plan adopted in 2017 provides a vision and set of prioritized strategies and tools to enhance the City's streets to be more comfortable, safe, and inviting to pedestrians and bicyclists of all ages and abilities. Similar to Beverly Hills, the city and its street network is almost entirely built out, meaning that not all streets may be designed to serve all modes. Given this challenge, West Hollywood's Pedestrian & Bicycle Mobility Plan presents a Complete Network Approach where modal priorities are established on separate streets. The guiding principle of West Hollywood's Pedestrian & Bicycle Mobility Plan is as follows, "city streets should provide safe connections for residents and visitors, regardless of their mode of transportation. Each public right-of-way should be designed to emphasize the mode(s) that are determined to be most relevant to the particular corridor."⁸

The objectives of West Hollywood's Pedestrian & Bicycle Mobility Plan are as follows:

- Implement the West Hollywood General Plan & Climate Action Plan
- Comply with federal and state regulations
- Support multi-modal transportation option to reduce greenhouse gases, congestion, and pollution
- Eliminate barriers along pedestrian routes and enhance sidewalks and crossings
- Provide a convenient and connected walking network
- Strengthen regional bicycle network connections
- Eliminate gaps in existing bicycle network and provide high-quality bicycle infrastructure to improve bicyclist comfort and safety
- Coordinate with neighboring jurisdictions to connect West Hollywood to regional destinations
- Improve City streets and sidewalks to provide enjoyable community living spaces
- Improve end-of-trip experience for bicyclists with lockers, showers, changing areas, secure parking⁸
- Foster educational programs to encourage safety and knowledge of rights and responsibilities
- Support the enforcement of traffic laws for all users of City streets
- Promote the City's identity as a walkable and bikeable place

West Hollywood's Pedestrian and Bicycle Mobility Plan identifies planning efforts to improve bicycle and pedestrian facilities. In 2011, the City's Bicycle Task Force put out a report containing recommendations to

⁸ <http://www.weho.org/home/showdocument?id=34445>

improve bicycle mobility as part of the General Plan update, which inspired the formation of the West Hollywood Bicycle Coalition. The Plan provides recommendations for developing a “complete network” in four distinct sections:

- **Design Toolbox Matrix:** Identifies design treatments that will help create a more comfortable walking and biking environment in West Hollywood. Descriptions, benefits, considerations, and locations are provided for each design treatment.
- **Priority Projects:** Identified in response to key issues raised by the community, which would close major gaps in the bikeway network, enhance the pedestrian environment, and improve highly used crosswalks. The five priority projects are identified with the intention that they will be approved and designed within 5 years following the adoption of the plan.
- **Additional Network Improvements:** Recommendations for the citywide network with a longer-term outlook, which would be implemented as funding becomes available, and/or in coordination with street maintenance work. Network improvements include new bike lanes, sharrows, intersection enhancements, and crossing improvements.
- **Programs and Policies:** Education and outreach campaigns, events, policies, and programs intended to encourage, educate, and create a more walkable and bikeable city⁹

West Hollywood’s Pedestrian and Bicycle Mobility Plan proposes bicycle facilities on the following corridors that connect with the City of Beverly Hills:

- Cynthia Street
- Melrose Avenue
- Beverly Boulevard
- Doheny Drive
- Santa Monica Boulevard

CITY OF LOS ANGELES

Los Angeles’ Mobility Plan 2035 provided a 2016 update to the City’s General Plan. It included the following five goals: Safety First, World Class Infrastructure, Access for all Angelinos, Informed Choices, and Clean Environments for a Healthy Community. These goals establish a clear policy foundation for using complete streets as a strategy for goal implementation. The City also published a Complete Streets Design Guide, which falls under the authority of the City of Los Angeles’ Street Standards Committee. The Design Guide is intended to provide flexible guidance for implementation that can change as innovations are introduced into the city’s landscape. Key policy initiatives from the Mobility Plan include:

- Lay the foundation for a network of complete streets and establish new complete street standards that will provide safe and efficient transportation for pedestrians (especially for vulnerable users such as children, seniors and the disabled), bicyclists, transit riders, and car and truck drivers, and more
- Consider the needs of public safety when evaluating changes that implement complete streets improvements

⁹ <https://www.smartgrowthamerica.org/app/legacy/documents/cs/media/cs-ca-pressrelease.pdf>

- Implement a balanced transportation system on all streets, tunnels, and bridges using complete street principles to ensure the safety and mobility of all users¹⁰

The City's Safety First goal is supported by its Vision Zero work. In 2014, the Los Angeles Department of Transportation (LADOT) released its first Vision Zero Strategic Plan, with the goals of reducing traffic deaths by 20 percent by 2017, and eliminating traffic fatalities citywide by 2025. The action plan includes the following approaches to implementation:

- **Engineering and Planning:** Focusing on high priority intersections and corridors on the High Injury Network, the City will increase visibility of the most vulnerable people on the road, such as pedestrians and bicyclists, children, and older adults; reduce conflicts; and set speed limits that protect human life. Safety projects will be prioritized based on crash profiles, cost effectiveness, and proven countermeasures.
- **Enforcement:** Enforcement will focus on high crash locations and target unsafe travel behavior (e.g., driving under the influence, distracted driving, failure to yield to people in crosswalks). Enhanced reporting statistics, including expanding pedestrian collisions reporting by LAPD and developing strategies based on long-term collision trends, will assist in directing safety efforts to high injury areas.
- **Education and Outreach:** The City will partner with community and neighborhood groups (especially in areas with high collision rates) and will develop safety campaigns to encourage safe travel behavior and draw attention to the most vulnerable people.
- **Evaluation and Monitoring:** The City will continue to collect and analyze collision, public health, and land use data to prioritize locations for (and evaluate results of) engineering, enforcement, and education efforts.
- **Partnerships:** Partners include County of Los Angeles Public Health, Los Angeles Unified School District, and the City's police, fire, and public works departments. The City will continue to work with community partners to improve safety at the neighborhood level.
- **Equity:** Prioritizing safety initiatives will focus on communities with both high levels of collisions and poor health outcomes¹⁰

Vision Zero Strategic Plan proposes bicycle facilities on the following corridors that connect with the City of Beverly Hills:

- Burton Way
- 6th Street
- Wilshire Boulevard
- North Santa Monica Boulevard
- Robertson Boulevard
- Beverwil Drive

¹⁰ <https://planning.lacity.org/documents/policy/mobilityplnmemo.pdf>

APPENDIX B: BEST PRACTICES

TRAFFIC MANAGEMENT

ITS / TRAFFIC SIGNAL SYNCHRONIZATION

Intelligent Transportation Systems (ITS) are a broad group of technologies that provide information and automation for the transportation industry to deliver benefits of improved safety, mobility, and environmental outcomes for travelers. Agencies across the United States have deployed or are testing ITS technologies such as changeable message signs, advisory speed limits, transit signal priority, and adaptive traffic signal timing.

Changeable message signs are used in San Francisco to provide drivers with crucial information like emergency street closures, public service announcements (e.g., reminding drivers to slow down), special events where congestion is expected, and wayfinding around congestion. They are also used in Beverly Hills for notifying drivers to take alternative streets during Metro Purple Line construction.

Advisory speed limits have been used on Portland and Seattle freeways, primarily as a tool to alert drivers about upcoming incidents (e.g., crashes, inclement weather, or other sudden slowdowns). Innovative agencies are exploring options to communicate suggested variable speed limits, inclusive of explanations of why reduced speeds are suggested (e.g., high volumes of pedestrians and/or bicycle traffic ahead). This takes advantage of the increasing connectivity being built into new vehicles. General Motors, Ford, Toyota, Audi and Tesla all communicate posted speed limits on the vehicle instrument panel, and some communicate warnings to drivers.

Transit signal priority is a technology that provides an early green light or extends the existing green light so that transit vehicles can move through the intersection without delay if needed to maintain or regain schedule adherence.

Adaptive traffic signal timing is used in many cities with high vehicular traffic so that vehicles continuously arrive at a green light while traveling through a corridor. The number and speed of approaching vehicles on each intersection leg are known to the traffic signal controller, and traffic signal green time is adaptively reallocated to maximize throughput. A good example of this is the Mercer corridor in Seattle, which is a very wide eight-lane arterial that has intermittent yet significant bicycle traffic crossings. The City uses smart sensor video detection to distinguish when bicyclists are present and extends green time to assure slower moving bicyclists safely cross the intersection when they are present; when no bicycles are present that traffic signal green time is reallocated back to the main street for better vehicle flow. The City should evaluate adaptive signal technology for applicability in Beverly Hills.

Video detection at traffic signals is also more effective in maintaining signal coordination through construction zones. Detection zones are simply redrawn as lane assignments shift with various construction stages, and both communications and counting capabilities are maintained. The count data can be sent from the controller to the cloud to the agency staff desktop, in a format ready for direct input for programming optimal traffic signal coordination for construction-induced traffic pattern shifts.

CURB SPACE MANAGEMENT

The efficient use of curbside space is one of the most valuable and underutilized tools that cities have to manage freight, shuttle, and for-hire vehicle traffic. As technology continues to change, changes in demand at the curbside changes, as well. For example, in recent years there has been an increase in urban freight due to online shopping and personal deliveries, such as app-based meal purchasing.

The following are examples of curb space management strategies implemented in other cities to help better organize uses and address demand.

- **Flexible Curb Zones:** Cities with curbsides in high demand have adopted new strategies to accommodate a wide range of priorities. Washington, D.C. tested a pilot zone that removed on-street parking at the Golden Triangle Business Improvement District. This neighborhood attracts high transportation network company (TNC) traffic from 10 PM – 2 AM during the weekends resulting in traffic congestion and a higher likelihood of pedestrian/vehicle conflicts as many TNCs would pickup and drop-off in the travel lane. By prohibiting parking from 10 PM – 7 AM, business owners noted increased customer traffic and reduced dwell times for TNC vehicles. Flexible curb zones are likely to be a more common best practice as on-street parking demand gives way to increased pick-up and drop-off activities as a result of more shared rides.
- **TNC Geo-fencing:** Many commercial districts struggle with accommodating TNC (for example, Lyft and Uber) pickup/drop-off activity during high-demand periods. Lack of coordination among TNCs and the City controlling the curb space results in TNC vehicles blocking travel lanes and bike lanes, compromising bike and pedestrian safety. Cities are increasingly working with TNCs directly to set up “geofences” – restricted zones that require TNC drivers/riders to pick-up/drop-off only from dedicated locations. Users are instructed to set their desired pickup/drop-off locations at the predetermined locations within the respective TNC apps. Geofencing generally prohibits TNCs from pickup/drop-off at key transit stops/stations and where loading presents significant conflicts with other modes. Geofencing for TNCs is becoming increasingly prevalent at landmarks with surges in demand, such as at sports arenas. Geofencing areas around the future Metro Purple Line stations could help address issues with unloading and loading in travel lanes adjacent to the stations.
- **Off-peak loading:** Management of loading and deliveries aims to reduce heavy truck traffic and conflicts with other modes by discouraging commercial loading during peak travel periods. Cities such as Philadelphia and New York provide incentives for overnight freight deliveries, while parts of central Boston ban mid-day truck traffic altogether. The City requires commercial deliveries to occur in alleys, but this still invites truck traffic on city streets during peak hours.

AUTOMATED ENFORCEMENT

Automated enforcement measures can help reduce red light violations and control speeding without diverting law enforcement resources from other areas. Such measures are intended to reduce congestion and improve safety. A factor in road congestion is collisions and incidents, which some experts believe cause half of all traffic congestion due to related traffic backups.

Traffic cameras cannot be used for speed enforcement in California. Some other States use radar to identify and photograph drivers exceeding the speed limit or running red lights. They are often combined with signs warning drivers that traffic laws are photo enforced. Traffic cameras are usually implemented on major arterials with a history of crashes attributed to high speeds or red light violations. In Portland, Oregon, red light cameras have been found to reduce total crashes at intersections by an average of 40 percent and injuries by an average of 48 percent¹¹.

Radar speed signs can be either permanent or mobile signs that detect and display the speed of vehicles as they approach. The signs raise the awareness of people driving and encourage them to slow down if they are



¹¹ City of Portland, Bureau of Transportation

above the speed limit. They are best used on busy streets where people are frequently observed driving above the speed limit, and/or on approaches to school zones and other high pedestrian activity areas prioritized with data collected on pedestrian counts at traffic signals by smart sensors. The radar speed signs can be configured to alert enforcement officers of locations and times of flagrant speeding, so that patterns can be discerned and effective enforcement can be scheduled.

A major factor that can affect public perceptions and attitudes toward automated traffic enforcement for red light running is the way in which these programs are implemented. A well-designed implementation plan can maximize opportunities to garner community support and raise public awareness of the reasons for deployment, while poorly implemented programs can generate negative public reactions and harsh media attention right from the start, potentially leading to program termination. Many factors in automated speed enforcement development and delivery are thought to affect the level of public acceptance and the success of speed camera programs. These factors include:

- Having specific target sites for enforcement (e.g., school zones, work zones, etc.)
- Program funding and use of any excess revenue
- Nature of citations issued (citing vehicle owner vs. driver)
- Type of citation review (e.g., police officer, vendor)
- Penalties for violations (level of fines, points on license, etc.)
- Existence and results of program evaluations
- Media reports and level of media exposure
- Public perception of the program

PARKING

REVERSE ANGLED PARKING

Reverse angled parking rotates head-in angled parking so that motorists instead back into stalls. This rotation improves sight distance of motorists exiting parking stalls so they can better see bicyclists and other motorists in the travel lanes. Reverse angled parking also has benefits to pedestrians as drivers can load cargo and children into vehicles from the sidewalk rather than the street.

Some United States cities that have installed reverse angled parking include Seattle, Tacoma, Olympia, Vancouver, Portland, Salem, Tucson, Austin, Salt Lake City, Washington, D.C., and Indianapolis. Tucson tracked data for bicycle/vehicle crashes before and after installing reverse angled parking and found that in the first four years after implementation it resulted in zero reported crashes, as compared to an average of three to four crashes associated with head-in angled parking.

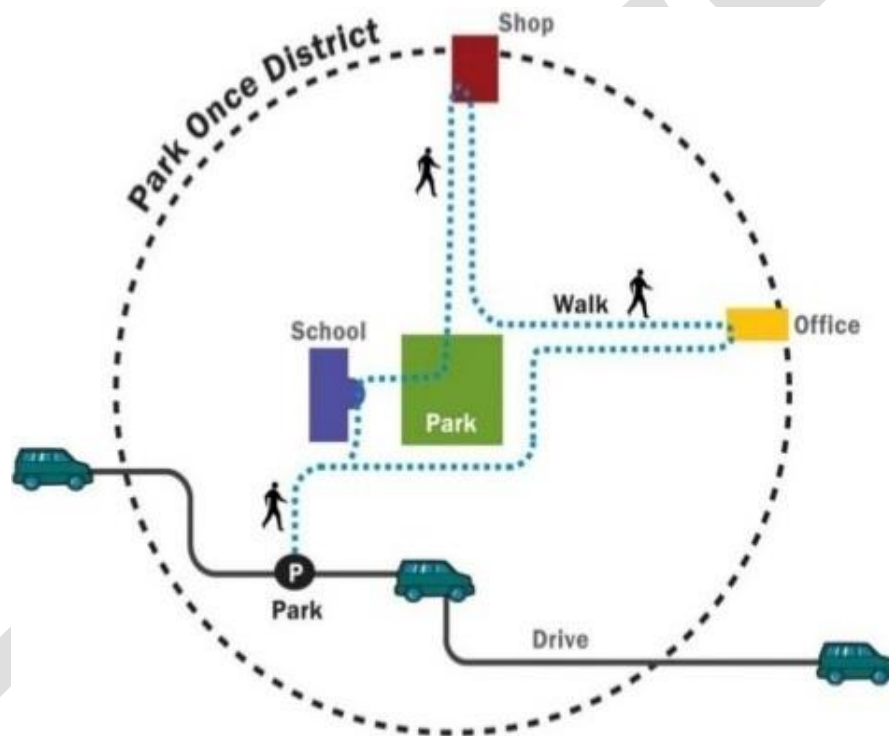


PARK ONCE DISTRICT

Park Once is a concept for a pedestrian-friendly district that allows people to park their cars once and walk through the area for errands/tasks instead of driving from destination to destination, as shown in **Figure B-1**.

Parking is located such that most visitors are within the walking distance of their destinations¹². This parking program provides the users with information on space availability and cost of parking. It utilizes the existing parking capacity more efficiently through applications that can be downloaded to personal cellphones, available online on the City's website, and shown at the entrance of parking garages. The Park Once District can improve the mobility of pedestrians in the area, enhance the business viability, and reduce traffic congestion and fuel consumption. The Park Once strategy has been widely used in downtown mobility plans and implemented in cities such as Glendale¹³ and Ventura¹⁴.

Figure B-1: Schematic Demonstration of Park Once District



Source: Nelson\Nygaard, based on an illustration by Walter Kulash

REAL-TIME PARKING INFORMATION

Visibility of available parking in off-street lots is a common issue in dense, urban areas. In many cases, motorists drive around searching for on-street parking spaces because they cannot see other available options. Using dynamic signs that show real-time availability of parking in lots can make the stalls more visible to the motorists and reduce traffic congestion. The City of Santa Monica includes static signs directing motorists to available off-street parking and nearby parking lots, and digital signs that show the number of available parking stalls at public facilities.¹⁵ The City of Beverly Hills provides indicator lighting over stalls in some parking structures to alert drivers of available parking stalls downstream.

Real-time information on parking availability and price can be collected to build an interactive parking map to

¹² <http://www.pedbikeinfo.org/>

¹³ Glendale Downtown Mobility Study, 2007. <https://www.glendaleca.gov/home/showdocument?id=20140>

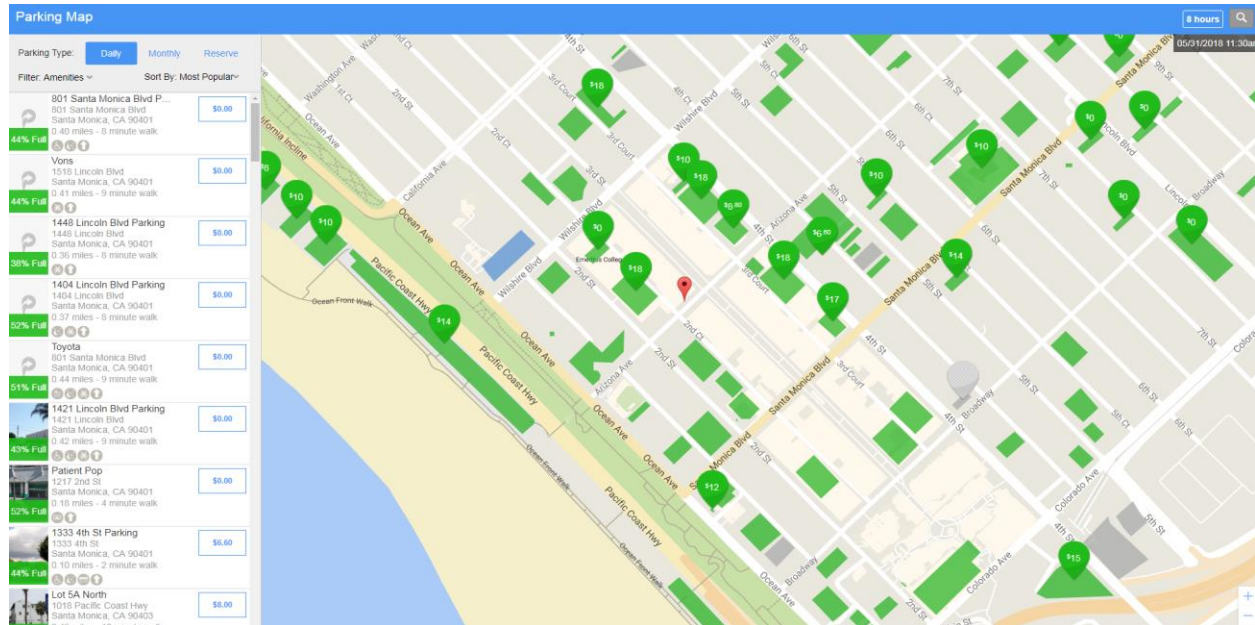
¹⁴ Downtown Ventura Mobility & Parking Plan, 2006.

<https://www.cityofventura.ca.gov/DocumentCenter/View/1311/March-2006-Downtown-Ventura-Mobility-and-Parking-Plan-PDF>

¹⁵ City of Santa Monica, <https://www.smgov.net/Departments/PCD/>

provide to drivers, for example through the “ParkMe” website/application. **Figure B-2** shows a screenshot of a ParkMe map, demonstrating the available parking in Santa Monica, CA along with the parking prices in real-time.

Figure B-2: ParkMe Website Snapshot



Source: <https://www.parkme.com/>

PEDESTRIAN INFRASTRUCTURE

CURB EXTENSIONS

Curb extensions can improve safety for pedestrians by narrowing the roadway to slow traffic and increasing space for pedestrian- and transit-friendly infrastructure. Curb extensions can shorten the crossing distance for pedestrians, therefore reducing the conflict zone with drivers. They can increase pedestrian visibility and provide additional space for amenities like street furniture. Curb extension treatments can also be installed on a temporary basis with paint, bollards, and planters, like along Pico Boulevard in Los Angeles. Types of curb extensions include:

- **Conventional:** Conventional curb extensions can be installed at corners or intersections where there is on-street parking to increase pedestrian visibility and reduce crossing distances.
- **Midblock:** Also known as pinch points or chokers, midblock curb extensions are useful for calming traffic at mid-block crossing locations on streets where there is on-street parking preceding and/or proceeding the crossing area.
- **Offset:** Also known as chicanes, offset curb extensions slow traffic speeds by requiring vehicles to move in a lateral motion.

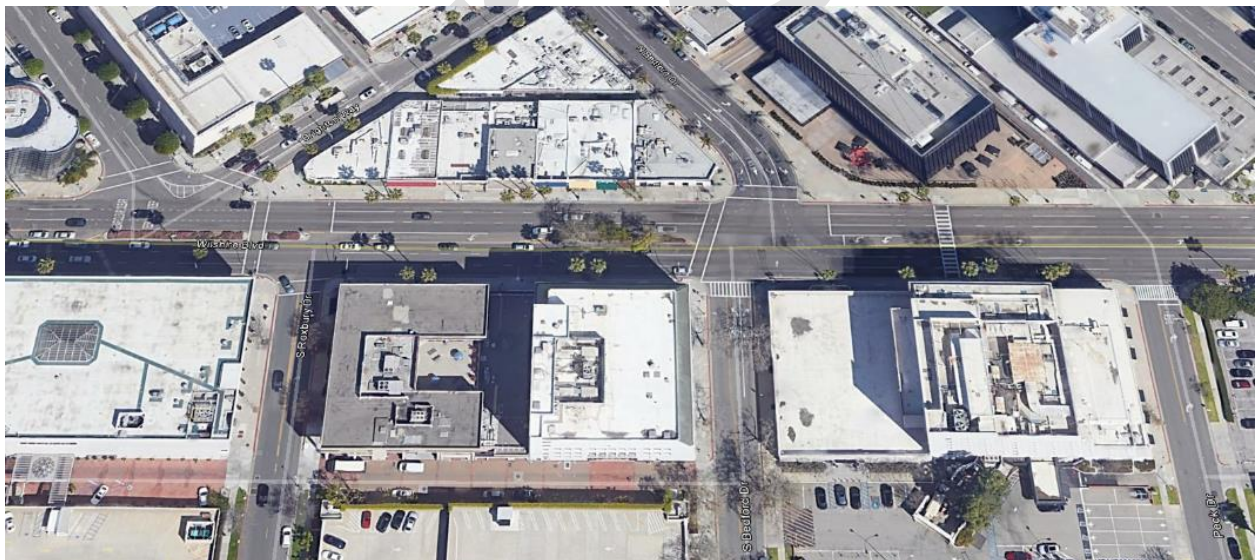


Curb extensions may include pervious pavement to effectively treat, detain, and infiltrate stormwater runoff where landscape-based strategies are restricted or less desired. Pervious pavements have multiple applications, including sidewalks, street furniture zones, and entire roadways (or just their parking lane or gutter strip portions). Where landscape options are available, bioswales are recommended. They are vegetated, shallow, landscaped depressions designed to capture, treat, and infiltrate stormwater runoff as it moves downstream. They are typically sized to treat the water quality event, also known as the “first flush,” which is the first and often most polluted volume of water resulting from a storm event. Bioswales are the most effective type of green infrastructure facility in slowing runoff velocity and cleansing water while recharging the underlying groundwater table. They have flexible siting requirements, allowing them to be integrated with medians, cul-de-sacs, curb extensions, and other public space or traffic calming strategies.

INTERSECTION TREATMENTS

Most conflicts between roadway users occur at intersections where vehicles, bicyclists, and pedestrians cross paths. In general, intersections should be designed to avoid conflicts by making right-of-way clear and heightening the visibility of pedestrians and bicyclists. Types of intersection treatments include:

- **Tight Corner Radii:** Make the turning angles at corners as narrow as possible (10 to 15 foot radii) to reduce the crossing distance, increase visibility of pedestrians, and slow down turning vehicles.
- **Mitigate Skewed Intersections:** Reduce instances where vehicles approach a roadway at an obtuse angle rather than perpendicularly. Skewed intersections can increase crossing distances for pedestrians, require longer signal phases, encourage speeding, and reduce visibility of pedestrians. Mitigations include tightening corner radii, squaring off the intersection (90-degree angles), installing pedestrian refuge islands (discussed below), and striping guidelines for motorists and bicyclists through undefined areas. Skewed intersections are prevalent along Wilshire Boulevard in Beverly Hills.



- **Mitigate Multi-leg Intersections:** Reduce intersections with more than four legs because they have multiple conflict points and potentially longer crossing distances. Mitigations include traffic circles (roundabouts) or closing one leg to create a minor intersection further up or downstream.
- **Traffic Circles or Roundabouts:** Reduce vehicle-pedestrian conflicts, reduce vehicle speeds, and reduce crash severity. In particular, roundabouts eliminate the most common types of crashes at intersections, which are left-turning movements and right-angle crashes.
- **Advanced Limit Lines:** Reduce vehicle encroachment into crosswalks and improve visibility of pedestrians for motorists. Stop lines should be set back between four to six feet from the crosswalk at signalized intersections, up to 40 feet where right turn on red conflicts exist, and a minimum of 40 feet at signalized midblock crossings.
- **High visibility crosswalks:** Improve visibility of pedestrians. When complemented with curb extensions and advance stop lines, high visibility crosswalks reduce the incidences of vehicle and pedestrian conflicts at intersections. The City of Beverly Hills' new standard crosswalk style is high visibility continental.

PEDESTRIAN REFUGE ISLANDS

Pedestrian refuge islands reduce pedestrian exposure to vehicles and help people cross wide streets by allowing them to cross one approach at a time. Refuge islands should ideally be 8-10 feet wide with a cut-through accessible ramp equal to the width of the crosswalk. As shown in the image at right, islands should have a “nose” extending past the crosswalk and curbs and/or bollards to protect people waiting.



ROADWAY RECONFIGURATION

Roadway reconfigurations repurpose vehicle travel lanes to create space for people walking and riding bicycles. A typical reconfiguration converts a four-lane roadway to two travel lanes, a center turn lane, and space for active modes. The images below show an example of a roadway reconfiguration in Downtown Los Angeles, where the City converted the curb lane to public space. These restriping treatments are generally deemed feasible where average daily traffic volumes do not exceed 20,000 vehicles per day on streets with two lanes in each direction.

A key benefit of roadway reconfiguration is the creation of additional space in the roadway for pedestrian and/or bicycle amenities, such as pedestrian refuge islands, bike lanes, or wide sidewalks. Reducing the number of vehicle travel lanes shortens the crossing distance for pedestrians and can slow speeds by visually narrowing the roadway, thus also potentially reducing crash severity. Roadway reconfigurations can also improve traffic flow by moving left-turning vehicles to the center lane where they do not queue in front of through traffic.



SIGNAL MODIFICATIONS

Signal modifications can be made to better communicate pedestrian rights of way, both to the pedestrian and to conflicting traffic. Most vehicle collisions with pedestrians occur at intersections where turning vehicles conflict with people walking. Pedestrian safety at intersections can be improved through changes to signals, which are often designed to accommodate or maximize motor vehicle traffic with little to no considerations given for pedestrians. Types of signal enhancements include:

- Leading Pedestrian Intervals (LPIs):** Typically give pedestrians a 3 to 7 second head start before vehicles are permitted to proceed at an intersection. This makes pedestrians more visible in the intersection and reinforces their right-of-way over turning vehicles. LPIs can be relatively low cost to install because they typically only require adjustments to the existing signal timing. LPIs have been shown to reduce pedestrian-involved collisions by as much as 60 percent.
- Scramble Crossings:** Exclusive pedestrian phase that allows pedestrians to cross in any direction—including diagonally—while vehicles from all directions are stopped. The City of Beverly Hills has several pedestrian scrambles in the Business Triangle and was one of the first cities in Los Angeles County to install this treatment.
- Automated Pedestrian Detection:** Microwave and infrared devices are able to sense when a pedestrian is waiting at a crosswalk and automatically send a signal to switch to a pedestrian WALK phase. Some automated pedestrian detection devices are also able to determine whether a pedestrian needs more time to cross the roadway and will lengthen the crossing interval to accommodate the slower pedestrian. Automated pedestrian detection devices reduce the percentage of pedestrians who cross roadways at inappropriate times, such as when the DON'T WALK signal is visible. A delay can be built into either of the devices so that the Walk signal is called only if the pedestrian stays within the detection zone for a certain amount of time. The delay helps to prevent pedestrians who walk by the detection zone from accidentally activating the WALK signal.



FLASHING BEACONS

Long blocks or gaps between signalized intersections can create a challenging crossing situation for pedestrians and bicyclists. The following tools increase visibility of active modes at unsignalized crossings.

- Rectangular Rapid Flashing Beacons (RRFB):** Alert drivers to pedestrians crossing at unsignalized intersections via pedestrian push button. RRFBs have been shown to generate high yield compliance by drivers.



- Pedestrian Hybrid Beacons:** Alert drivers to people crossing through a pedestrian push button that activates an overhead warning light. Once activated, the signal turns yellow to notify vehicles that a pedestrian is preparing to cross, before moving to a steady red while the pedestrian is crossing, and a flashing red during the pedestrian clearance interval. A study on the safety effects of hybrid beacons showed a 69 percent reduction in pedestrian-involved collisions.



- In-roadway Flashing Lights:** Pedestrian-activated lights embedded in the pavement in front of the crosswalk that flash to notify drivers of pedestrians crossing. In-roadway flashing lights to date have degraded over time and require significant maintenance, but new technology appears to be improved.



- Toucan Signals:** Provide a protected crossing for bicyclists and pedestrians on roads that prioritize non-motorized traffic. Vehicle traffic is required to turn right or left, which can help calm traffic on streets with these signals.



PARKLETS

A parklet converts an on-street parking stall or underutilized roadway space into an extension of the sidewalk to provide additional public space. They are appropriate in areas with high pedestrian activity through most of the day and can effectively widen narrow sidewalks with limited space for pedestrian amenities like street furniture. Parklets can include seating, games, bike parking, or other amenities that activate the public realm.



PEDESTRIAN SCALE LIGHTING

Street lighting of lower height can improve accessibility and visibility by illuminating sidewalks, crosswalks, and signs. Pedestrian-scale lighting and vehicle-scale lighting should complement each other to ensure that both sidewalks and travel lanes are effectively illuminated. Lampposts are recommended to be staggered on opposite sides of the street to act as vertical buffers between the sidewalk and street and help define pedestrian areas.¹⁶ Pedestrian-scale lighting can be applied to the following uses to enhance the public realm:

- Landscaping
- Transit stops
- Building entrances
- Edges of parks and plazas
- Retail displays
- Architectural details
- Signage
- Focal points
- Traffic calming

BICYCLE INFRASTRUCTURE

SHARED USE PATHS

Shared-use paths allow for two-way, off-street bicycle and pedestrian use. They are appropriate for riders of all abilities, particularly children and older adults, because they are completely separated from the roadway. If heavy use by pedestrians or other non-motorized users is expected, separated space for bicyclists may be appropriate.



BIKE LANE UPGRADES

Buffered bicycle lanes are on-street bike lanes with an additional buffer between either the bike lane and the travel lane, or the bike lane and the parking lane (or both). They are more comfortable for bicyclists because they provide more separation from moving traffic and can move bicyclists out of the door zone.

¹⁶ https://nacto.org/docs/usdg/best_practices_ped_master_planning_design_sacramento.pdf

A before and after study of buffered bicycle lane installation in Portland, OR found an overwhelmingly positive response from bicyclists, with 89 percent of bicyclists feeling safer riding after installation and 91 percent expressing that the facility made bicycling easier.¹⁷



Where pavement widths are constrained, consideration may be given to striping uphill bike lanes (to better protect the slower moving ascending bicyclists) and downhill sharrows (to position the faster descending cyclists in the right-third of the travel lane). This provides a bike lane in one direction, providing separation from vehicle traffic in the more critical direction.

Often due to roadway constraints, bike lanes drop at intersections and allow for right turning vehicle movements. Striping combined bike and right turn lanes like what is currently at several intersections on North Santa Monica Boulevard in Beverly Hills can encourage drivers and bicyclists to share space and move more slowly in conflict zones.

Advisory bike lanes provide for two-way motor vehicle and bicycle traffic using a central travel lane and “advisory” bike lanes on either side. The center lane is dedicated to, and shared by, motorists traveling in both directions. Cyclists are given preference in the bike lanes, but motorists can move into the bike lanes in order to pass other road users after yielding to cyclists. Advisory bike lanes are most appropriate for lower volume streets. They exist throughout the United States and Canada. Cities in the United States must apply for FHWA authorization for an experimental treatment to implement advisory bike lanes.



¹⁷ National Cooperative Highway Research Program, 2014. Report #766: Recommended Bicycle Lane Widths for Various Roadway Characteristics.

Contra-flow bike lanes effectively convert one-way streets to two-way streets by allowing bicyclists to ride in the opposite direction of traffic in the bike lane (the street remains one-way for motorists). Contra-flow lanes can provide greater connectivity and access to bicyclists, as well as shorter trip distances and travel times. Contra-flow lanes can be placed next to the bike lane in the same direction as motor vehicle traffic to create two-way separated bike lanes.



BIKE BOULEVARDS

Bicycle boulevards are bike routes on low volume streets that are enhanced with traffic calming and intersection treatments to prioritize active modes of travel. They are appropriate for all levels of bicyclists, especially children and older adults that may not feel comfortable biking on arterial streets. They are intended to bring vehicle travel speeds down to the approximate speed of cyclists, and work well to resolve speeding complaints along low volume local streets. If space permits, they can also include bike lanes in one or two directions.

SEPARATED BIKEWAYS

Separated bikeways are one- or two-way bike lanes physically separated from moving traffic through bollards, planters, concrete, or other vertical delineation. Separated bikeways are significantly more comfortable for less confident bicyclists, especially children or older adults that do not feel comfortable riding adjacent to moving vehicles. Due to reduced conflict points, separated bikeways can reduce vehicle-bicycle collisions.



SIGNAL MODIFICATIONS

Bicycle signals can facilitate safer and more convenient bicyclist crossings at intersections along shared use paths and separated bikeways by providing a bicycle signal phase, which minimizes bicycle-vehicle conflicts. An intersection with bicycle signals may reduce stress and delays for a crossing bicyclist, and discourage illegal and unsafe crossing maneuvers.¹⁸

Bicyclists typically need more time to travel through an intersection than motor vehicles. Green light times for bicycle signals should be determined using the bicycle crossing time for standing bicycles. In the United States, bicycle signal heads typically use standard three-lens signal heads in green, yellow, and red lenses. Further, push buttons, signage, and pavement markings may be used to highlight these facilities for both bicyclists and motorists.

At unsignalized intersection crossings, flashing amber warning beacons and signals, such as the Pedestrian Hybrid Beacon or Toucan signals discussed in earlier in this chapter, are often used to assist bicyclists crossing. Determining which type of signal or beacon to use depends on vehicle speed limits, vehicle traffic volumes, anticipated bicycle crossing traffic, and the configuration of planned or existing bicycle facilities.

Traffic signal detection should be provided with sensors that are smart enough to distinguish bicycles from vehicles, so that green times can be extended for safe passage of bicycles when they are present and green time can be reallocated to more congested approaches when they are not present. Detection with sensors that distinguish bicycles from vehicles can alert the signal controller of bicyclists waiting to cross the street.

¹⁸ NACTO, 2014. Urban Bikeway Design Guide.

Supplemental bike indicators are available to communicate to waiting bicyclists that the signal knows they are waiting on red, and a green light will be provided long enough to safely clear them. A supplemental pavement marking may be used to instruct bicyclists where to position themselves to trigger the signal, although this is not necessary with video detection. For non-video detection the type of detection must be adjusted for bicycle metallic mass, and non-metallic bikes are not detected. All existing and new traffic signals should be timed for bicyclist speeds so that people on bikes can clear the intersection before the next signal phase begins, which minimizes vehicle-bicycle conflicts.



CONFLICT ZONE AND INTERSECTION TREATMENTS

Green colored pavement can be used on bikeways, in conflict areas, in intersection treatments, and behind pavement markings (like shared lane markings) to increase awareness of bicyclists. Colored pavement application materials include paint, durable liquid pavement markings, and thermoplastic.

Bike boxes can be placed at the start of a travel lane at signalized intersections to provide bicyclists a separated space to queue during the red signal phase. They can increase the visibility of bicyclists, reduce bicyclist signal delay, assist with merges from bike lanes to shared travel lanes (like on eastbound North Santa Monica Boulevard at Doheny Drive in Beverly Hills), and facilitate bicyclist left turns. Bike boxes are appropriate at conflict zones, such as at vehicle right or left turn locations; at signalized intersections with high bicycle volumes; and at signalized intersections with high vehicle volumes.



Intersection crossing markings guide bicyclists through intersections, driveways, and ramps, and highlight the bicyclist path of travel to drivers, making bicyclists more predictable in conflict zones. They are best applied on streets with bike lanes or separated bikeways, at direct paths through intersections, on streets with high volumes of adjacent traffic, and in potential conflict zones.

The design of intersection crossing markings is an emerging practice area. The National Committee on Uniform Traffic Control Devices has submitted a request to include additional options for bicycle lane extensions through intersections as a part of future MUTCD updates. Their proposal includes the following options for striping elements within the crossing: bicycle lane markings, double chevron markings indicating the direction of travel, and green colored pavement.

Two-stage left turn queueing boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a separated bikeway or bike lane. Two-stage turn queue boxes may also be used at unsignalized intersections to simplify turns from a bicycle lane or separated bikeway, as for example, onto a bicycle boulevard.

The protected intersection is a way of accommodating separated bikeways at intersections. It is modeled after Dutch intersection design and includes features for corner refuge islands that put the stop bar for bicyclists ahead of the stop bar for vehicles and bicyclist crossings set back approximately one car length from the adjacent travel lane. Protected Intersection design has promise, yet there are some challenges in implementation. Known issues include:



- Intersection capacity implications of added bicycle signal phases
- Non-MUTCD compliant signalization schemes, such as the leading bicycle interval
- Truck turning requirements for freight movement
- Bicyclist deflection at corner islands and impacts to operating speed
- Interaction between bicyclists and pedestrians
- Pedestrian deflection at crossings
- Considerations for pedestrians with disabilities

BICYCLE PARKING

High quality bicycle parking provides a secure place for people to leave their bicycles when they reach their destinations. Design guidance on short- and long-term bike parking can be found in the Association of Pedestrian and Bicycle Professionals' (APBP) *Bicycle Parking Design Guide*. Short-term bicycle parking is appropriate for storage of bicycles for up to 2 hours and typically takes the form of bike racks. Recommended bike rack styles that provide more security and stability include U-racks, post and ring racks, and staple racks. Bike racks should be placed as close as possible to destination entrances and ideally provide weather protection.

Where the placement of racks on sidewalks is not possible due to narrow sidewalk width or sidewalk obstructions, an on-street parking stall or underutilized roadway space can be converted to a bike corral, which contains multiple bike racks (typically space for 6-10 bicycles).



Long-term bike parking is appropriate for storage of bicycles for more than 2 hours, for example at work places or transit stations, so it must provide greater security and protection for people to feel comfortable leaving their bikes. Recommended long-term bike parking types include lockers, secure parking areas (SPAs), and closed rooms with in-person or TV monitoring. Long-term bike parking areas can include bike repair stations and changing facilities to encouraging bike commuting.

BIKE SHARE

As discussed in **Chapter 3**, bike share is a form of public transportation where bicycles are made available 24/7 for rent for short, point-to-point trips. Should the City of Beverly Hills expand the existing bike share system, best practices in bike share programs include:

- Implement an integrated, connected network of low-stress bicycle facilities so bicyclists have a comfortable place to ride
- Deploy stations in areas where increased population and job densities, popular destinations such as parks, schools, public transit hubs, and retail centers positively impact ridership
- Locate stations no more than one-half mile apart to minimize distances users must walk to access the service
- Evaluate data, customer information, and feedback for system improvement
- Encourage helmet use
- Enhance functionality with mobile and web applications
- Integrate with other active transportation options to provide multiple choices

WAYFINDING

Bicycle wayfinding signage and markings can help bicyclists efficiently navigate the bikeway network to reach their destinations. Wayfinding is especially helpful to guide bicyclists along bike boulevards where the routes may make frequent turns to keep bicyclist on low-stress streets. Types of wayfinding signs include:

- **Confirmation Signs:** Show bicyclists they are on a designated bikeway
- **Turn Signs:** Indicate where a bikeway turns from one street to another
- **Decision Signs:** Identifies the intersection of two bikeways or the route to key destinations

Wayfinding pavement markings can be used to supplement wayfinding signage that may be difficult to see and help bicyclists navigate routes that turn. Portland, OR, for example, uses shared lane markings with angled chevrons to tell bicyclists where to turn to stay on bike boulevards.

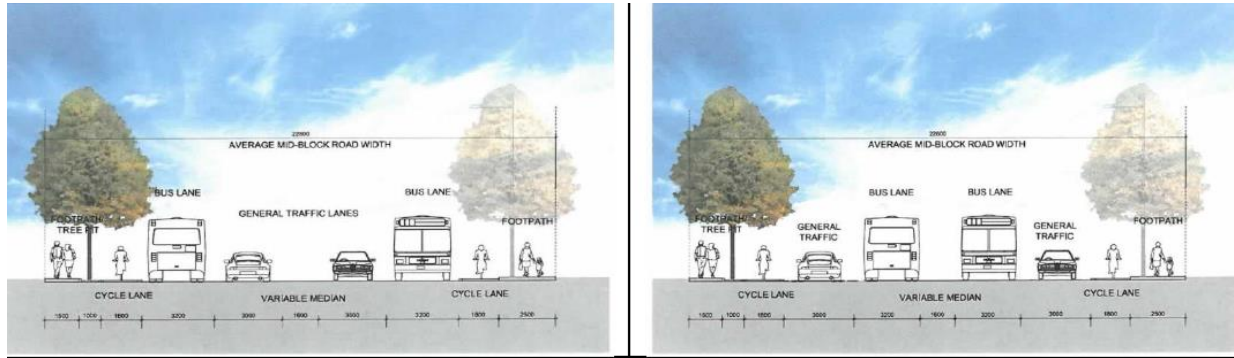
TRANSIT INFRASTRUCTURE

BUS ONLY LANES

Bus-only lanes are travel lanes dedicated exclusively to buses either during peak commute hours or all day to increase the efficiency of transit systems by improving bus travel speed and reliability¹⁹. As shown in the graphics below, bus lanes can be curb-adjacent or center-running. Curb-adjacent bus lanes are appropriate for bus lanes that are only available during peak hours, such as the existing bus-only lanes on Wilshire Boulevard in the Cities of Los Angeles and Santa Monica.

¹⁹ When Are Bus Lanes Warranted?, Nov 2016, <http://www.vtpi.org/blw.pdf>

Shared bus-only and bike lanes can accommodate both modes when buses travel at slow speeds with moderate headways (applications should generally be limited to bus lanes with operating speeds of 20 mph or less and transit headways of 4 minutes or longer), where buses are discouraged from passing, and bicyclists pass buses only at stops. In appropriate conditions, bus-bike lanes are an option on streets where both dedicated bus and separate high-comfort bicycle facilities cannot be provided.



BUS BULBS AND PLATFORMS

Bus bulbs are curb extensions that put the bus stop in line with the parking lane, which enables buses to load/unload passengers without leaving the travel lane. Bus bulbs can help make buses more reliable and reduce travel time by not having to merge in and out of traffic. Where bike lanes are present, bike lane cut-outs should be provided to create floating bus islands, along with appropriate signage and markings to highlight bicycle-pedestrian conflict zones.



Where a bike lane is present without a parking lane, bus platforms should be considered. Bus platforms raise the bike lane up to sidewalk level, allowing the bus to load/unload passengers without pulling into the bike lane and reduce bus-bicycle conflicts.

ENHANCED BUS STOPS

Enhancing transit stops can improve the user experience and encourage people to take transit more often. Providing amenities like bus shelters, lighting, benches, and trash facilities where space is available, even at low-ridership stops, helps to provide a level of comfort for transit riders in line with that typically prioritized for drivers. Additionally, real-time travel information, like changeable signs displaying when the next bus is coming, or automated displays can help make transit more predictable and make transfers more convenient.

TRANSIT SIGNAL PRIORITY

Transit signal priority modifies traffic signal timing or phasing when buses (and trains) are present, either conditionally for vehicles that are behind schedule or unconditionally for all vehicles. This can improve transit reliability and travel time, especially on arterial streets with long signal cycles and distances between signals. In urban settings, transit signal priority has the largest benefits when implemented in conjunction with infrastructure like bus-only lanes.

MICROTRANSIT

Microtransit is a small-scale, demand responsive transit system, providing more flexibility over conventional public transit. Riders call the service when they want it, are picked up at/near their locations, and are dropped off at/near their destinations. Unlike conventional public transit, routes do not have to be fixed and can be modified based on real-time demand and real-time traffic conditions. Microtransit can offer amenities like Wi-Fi, USB, and chargers to enhance user comfort. Microtransit should be considered where it could fill in gaps in the existing transit system, not as a replacement. An opportunity for microtransit in Beverly Hills is providing an autonomous shuttle to/from the Metro Purple Line stations.



MOBILITY HUBS

Clustering transit stops with bike share stations, car share, and for-hire-vehicle zones to create neighborhood mobility hubs can make the best use of station and sidewalk investments and addressing ADA and accessibility through the design process. These concepts will be key to the two Metro Purple Line stations, where station area planning should be integrated with placemaking to capitalize on local assets, inspiration, and the potential to create public spaces that promote people's health, happiness, and wellbeing.

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APPENDIX C: EMERGING TRENDS

Technology applications in transportation have advanced rapidly in recent years, from the explosive growth in on-demand and ride-hailing services such as Uber and Lyft; to microtransit services such as Chariot and Via; to connected and autonomous vehicular technologies and drones. Technology advances have been characterized in multiple research studies as three transportation revolutions:²⁰

- Electrification of Vehicles and Transportation Network,
- Connected and Autonomous Vehicles, and
- Widespread Shared Mobility (sharing of vehicle trips)

These revolutions give public agencies reasons to pause and reconsider how to design, operate, and maintain transportation networks to maximize the benefits of improved safety, mobility, convenience, and greenhouse gas emissions reduction while minimizing the negative externalities associated with these transformations. Without adequate public policies and infrastructure, technological changes may produce negative externalities such as increased vehicle miles traveled (VMT), reduced vehicle occupancy, increased congestion, reduced transit ridership, and an increase in intermodal conflicts.

ELECTRIFICATION OF VEHICLES AND THE TRANSPORTATION NETWORK

The internal combustion engine has dominated automobile propulsion for 100 years. The push to reduce vehicle greenhouse gas emissions as a primary means of mitigating the effects of climate change involves both shifting the fuel mix of the vehicle fleet to zero-emissions sources and reducing vehicle miles traveled.

The use of electric and hydrogen fuel-cell electric vehicles is encouraged through the California Air Resources Board's Zero Emission Vehicle (ZEV) program. The ZEV program supports the development of plug-in electric vehicle and hydrogen electric fuel cell stations throughout the state.

Electrify America, a subsidiary of Volkswagen created in the wake of the company's emissions scandal²¹, will invest \$2 billion in Zero Emission Vehicle (ZEV) infrastructure and education programs in the United States over a 10-year period ending in 2027. Of this \$2 billion, \$800 million will be invested in California, the largest single ZEV market in the world.²² This investment represents the largest of its kind ever made, and it will establish a network of approximately 2,000-3,000 non-proprietary chargers across 400+ individual stations in California. As part of Electrify America's first 30-month investment plan, approximately 350 new Level 2 charging stations²³ and 50 DC Fast Charging- stations²⁴ will be built in six California regions: Los Angeles, Sacramento, San Francisco, San Diego, San Jose, and Fresno²⁵. Of these charging stations, 75 percent will be located at workplaces and the remainder at apartment buildings, condominiums and other multi-family properties.

²⁰ <https://its.ucdavis.edu/blog-post/how-to-combine-three-revolutions-in-transportation-for-maximum-benefit-worldwide/>, accessed 3/15/18.

²¹ <https://www.epa.gov/vw/learn-about-volkswagen-violations>, accessed 07/26/18

²² Electrify America 3Q 2017 Report to California Air Resources Board, Cycle 1, November 21, 2017.

²³ Level 2 chargers are used for both residential and commercial charging stations. They use a 240 V (for residential) or 208 V (for commercial) plug, and can deliver 20 to 25 miles of vehicle range per hour of charging.

²⁴ DC Fast Chargers, also known as Level 3 or CHAdeMO charging stations, can offer 60 to 100 miles of range for electric vehicles in just 20 minutes of charging. However, they are typically only used in commercial and industrial applications – they require highly specialized, high-powered equipment to install and maintain. DC Fast Chargers are not compatible with most plug-in hybrid electric vehicles.

²⁵ <https://www.electrifyamerica.com/our-plan>

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

A greater density of charging infrastructure makes electric vehicles (EVs) a more viable option for a wider range of vehicle trips. Fast, ubiquitous EV charging infrastructure in urban areas is necessary to ensure that vehicle fleets become not just increasingly electric, but also increasingly shared. Widespread availability of DC Fast Charging stations is necessary to facilitate the high vehicle turnover required to sustain car share fleets – and even more so for expected autonomous ride-hail fleets –and minimize recharging downtime. Car share and ride-hail fleets have lower handling costs if their vehicles are parked closer to electric vehicle (EV) charging. Overall, the technology and market outlook for EVs appears promising, though the timing of when the technology will become widely adopted remains to be seen. Continuing strong local, regional and federal policy will be needed for many years to achieve a full electrification of the vehicle fleet.²⁶



The City should explore EV car sharing, especially in neighborhoods with permit parking, to nudge its transportation operations towards a more sustainable future. According to the study *The Impact of Carsharing on Household Vehicle Ownership*, for every car share vehicle up to 13 personally owned vehicles can be given up by their owners.²⁷ The cited research found that carsharing lowers the total number of vehicles owned by members. Across the sample, households owned 2,968 vehicles before carsharing, which translates to 0.47 vehicles per household. After carsharing, the sample owned 1,507 vehicles, or 0.24 vehicles per household. The difference between these means (–0.23) is statistically significant at the 99 percent confidence level. Notably, much of this shift involved households becoming carless: 80 percent of the sample owned no vehicle after joining carsharing. Most of this shift was the result of one-car households becoming no-car households. A smaller change occurred with two-car households becoming one-car households. Carsharing not only reduces the number of personal vehicles owned across the sample; it can also deter carless households from acquiring a vehicle. Most of the households that join carsharing are carless: 62 percent of households joining carsharing owned no vehicle when they joined, while 31 percent of households owned one vehicle. That is, some carsharing members who consider buying a car ultimately decide against it and use carsharing instead. This effect is hard to measure because a decision not to purchase something is difficult to observe. However, the survey conducted as part of this study asked respondents whether in the absence of carsharing they would buy a car. The available responses included “definitely not,” “probably not,” “maybe,” “probably,” and “definitely.” This question gives insight into the degree to which carsharing substituted for a personal vehicle that would have been purchased. About 25 percent of the total sample indicated that they “maybe,” “probably,” or “definitely” would buy a car in the absence of carsharing.

The implementation of electric vehicle charging infrastructure should be coordinated with the City’s Parking Manager.

HYDROGEN FUEL-CELL ELECTRIC VEHICLES

Hydrogen fuel-cell technology is an emerging partner in the electrification of California’s vehicle fleet. Whereas plug-in EVs use rechargeable lithium-ion batteries to power the vehicle, hydrogen fuel cells use a process of reverse electrolysis – combining compressed hydrogen on the anode side of the fuel-cell and oxygen on the

²⁶ Three Revolutions in Global Transportation, UC Davis and the Institute for Transportation & Development Policy, May 2017, p 33.

²⁷ Martin, Elliot and Shaheen, Susan, *The Impact of Carsharing on Household Vehicle Ownership*, ACCESS Magazine, 1(38), p 22-27, UC Berkeley Transportation Center, 2011.

cathode side – to create water and the electric energy used to power the vehicle’s motion. Like plug-in EVs, hydrogen fuel-cell vehicles create no greenhouse gas emissions; the only waste from its exhaust pipe is water vapor. Hydrogen fuel-cell vehicles can recharge in minutes and typically offer a vehicle range of about 300 miles of travel between charges, roughly equivalent to the range of internal combustion vehicles, and considerably greater than the average range of 200 miles on a typical plug-in EV model.²⁸ However, hydrogen fuel-cell technology is not nearly as advanced as that of plug-in EVs. Hydrogen fuel-cell vehicles currently sell for more than double the typical plug-in EV.²⁹ In addition, the hydrogen fuel supply network is in its infancy: there are currently just 35 hydrogen fuel stations in California. Due to the scarcity of fuel stations and high costs in the production of technical-grade hydrogen, hydrogen fuel currently costs at least twice as much as gasoline.³⁰

The transport and storage of hydrogen costs about 13% of the energy in the best-case scenario. By contrast, Battery EVs only have to contend with grid losses, which average around 5% in the US. Once it’s in the vehicle, hydrogen has an efficiency of around 60% - much better than the dismal 20% efficiency of a gas or diesel engine, but lower than the 75% for a Battery EVs. So Hydrogen Fuel Cell Vehicles are less efficient than Battery EVs at every stage of the process: generating hydrogen; transportation and storage; and converting it back to energy in the vehicle. Considering all these steps together, in the best-case scenario, hydrogen is about half as efficient as battery technology. However, comparing the real-world costs of fuel, Real Engineering found that driving a Tesla Model 3 costs between 2 and 2.4 cents per kilometer, whereas the hydrogen to power a Toyota Mirai costs 17.7 cents per kilometer.³¹

Nevertheless, several automakers, including Volkswagen, Honda, Toyota, Mercedes-Benz, and GM are making strategic investments in hydrogen fuel-cell technologies as a hedge against the potential stabilization of the price of lithium-ion batteries used in plug-in EVs, which has plummeted in recent years³². As these investments mature, it is anticipated that a wider range of mass market, hydrogen fuel-cell vehicles (and fuels) will become available at prices more comparable to internal combustion vehicles by around 2025.

The ZEV program supports hydrogen fuel-cell vehicles in tandem with plug-in EVs, while recognizing that the supply chain and market adoption for plug-in EVs are far more mature. In response to pressure from CARB, Electrify America has committed to including hydrogen fuel-cell electric vehicle technologies in its public marketing and education campaigns, exploring opportunities to upgrade technical-grade hydrogen supply networks, and considering the installation of EV charging stations at existing hydrogen fuel stations. A hydrogen fuel cell station is in a pre-permit application as part of a retail development at 9988 Wilshire Boulevard according to the California Fuel Cell Partnership.³³ The State’s Plug-in Electric Vehicle Resource Center offers a *ZEV Community Readiness Guidebook*³⁴ which offers example for building codes and zoning for Plug-In Electric Vehicle Charging and Plug-In Electric Vehicle Parking Codes.

CONNECTED AND AUTONOMOUS VEHICLES

Connected and autonomous vehicles (C/AV) are a series of technologies in development and pilot deployment that allow communication among infrastructure and vehicles to provide more efficient operations. Some of the potential benefits of C/AVs are:

- **Collision reduction:** Removing human error increases the potential for collision-free driving. The

²⁸ The Economist. 2017. “Electric Vehicles Powered by Fuel-Cells Get a Second Look,” September 25, 2017. <https://www.economist.com/science-and-technology/2017/09/25/electric-vehicles-powered-by-fuel-cells-get-a-second-look>

²⁹ Lee, Kristen. 2017, October 26. “Toyota Wants To Make Its Hydrogen Cars Cost The Same As Hybrids By 2025”

³⁰ <https://cafcp.org/content/cost-refill>

³¹ <https://evannex.com/blogs/news/are-hydrogen-fuel-cells-competitive-with-battery-electric-technology>

³² <https://jalopnik.com/toyota-wants-to-make-its-hydrogen-cars-cost-the-same-as-1819873773>

³³ <https://cafcp.org/stationmap>

³⁴ https://www.driveclean.ca.gov/pev/Resources_For_Cities.php

resulting improvements in vehicle safety could dramatically improve traffic circulation and roadway capacity.

- **Reduced VMT and policy requirements to get there:** With appropriate regulation by public policies to limit the use of low- and zero-occupancy autonomous vehicles and reduce conflict at the curbside, autonomous vehicles have the potential to significantly reduce vehicle miles traveled (VMT). This outcome is more likely if autonomous vehicles are primarily deployed in shared vehicle fleets (e.g. ride-hailing or on-demand transit) rather than the personal vehicle market. Policies to limit the negative externalities of autonomous vehicles include VMT taxes (to supplement shrinking gas tax revenues), surcharges on low- and zero-occupancy vehicles, congestion charges to discourage low-occupancy travel on congested corridors, and demand-based parking pricing to ensure sufficient space availability at the curb. Mobility as a Service (MaaS) platforms – digital applications that provide integrated, multimodal trip planning, trip booking, and fare payment services – are also needed to incentivize public transit ridership, reduce VMT, advance shared mobility services, and increase vehicle occupancy in shared, autonomous vehicles.
- **Smaller roadway facilities due to reduced VMT and less conservative design requirements:** With the policies to reduce VMT above in place, autonomous vehicles can encourage more flexible, streamlined roadway designs. Safer, more efficient vehicle operations – due to the decline of crashes caused by human error, and lower traffic volumes due to higher vehicle occupancies in shared fleets – could result in a need for smaller, right-sized roadways that provide safer environments for people walking, biking, and riding transit. With declining VMT and traffic volumes, some travel lanes could be narrowed or reallocated to other uses, such as bike lanes, sidewalks, parklets, or loading zones.
- **Smaller parking portfolios as demand for personal vehicle storage declines:** C/AVs deployed in shared fleets are expected to become cost-competitive with conventional vehicles within several decades, causing average vehicle occupancies to rise and personal vehicle ownership to decline. Even without autonomous functions, current ride-hailing platforms like Uber and Lyft are already causing declines in parking demand of 5-20 percent at airport parking facilities, 70 percent in hotel parking from business travelers, and 80 percent from bar/restaurant valet services.³⁵ C/AV fleets are likely to cause more significant declines in parking demand, particularly in densely populated urban cores. Additionally, there can be an approximate 20 percent reduction in parking aisle and stall size where human ingress/egress is not needed. As a result, cities and parking managers will be compelled to densify existing parking supplies by spacing vehicles tightly together, or through increasing use of mechanical lifts and stackers. Falling parking demand will also create opportunities for adaptive reuse of some above-ground parking structures (with level floorplates) into offices, residences, or other more active uses. The growth of shared, ride-hailing fleets will reduce the need for on-street parking but increase the need for curbside loading zones, particularly at key destinations.
- **Travel time dependability:** The convergence of sensor-based technologies (e.g. LiDAR imaging) and connected-vehicle communications can substantially reduce uncertainty in travel times. These technologies underpinning C/AVs are well-suited to provide real-time, predictive assessment of travel times on all routes and by all modes of travel, improving overall travel time dependability for travelers.
- **Productivity improvements:** C/AVs could allow travelers to make use of travel time productively, as they will no longer be occupied by operating the vehicle and keeping their attention on the road.
- **Improved energy efficiency:** C/AVs deployed in shared fleets could lead to reduced energy consumption in at least three ways: more efficient routing; lighter, more fuel-efficient vehicles (particularly if they are electric vehicles); and efficient infrastructure.

³⁵ Marcut, Adina. 2018. "Parking Demand Trends: The Impact of Transportation Network Cos." Commercial Property Executive. April 2, 2018. <https://www.cpexecutive.com/post/parking-demand-trends-the-impact-of-transportation-network-cos/>

- **New models for mobility:** Autonomous vehicles could lead to a major shift from vehicle ownership to rides accessed on-demand, and expand opportunities for shared, on-demand transit fleets (e.g. shuttles, vans, or minibuses) as well as ride-hail fleets.
- **New business models and scenarios:** C/AV technologies may realign industries such that ecosystem participants need to compete and collaborate at the same time.

CONNECTED VEHICLES

Connected vehicles are vehicles that use any of a number of different communication technologies to communicate with the driver, other vehicles on the road (vehicle-to-vehicle [V2V]), roadside infrastructure (vehicle-to-infrastructure [V2I]), and the cloud computing systems. This technology can be used to improve vehicle safety, routing efficiency, and commute times. Although adding connectivity to vehicles has its benefits, it also has challenges. Connected vehicles raise issues of security, privacy, data analytics, and data aggregation due to the abundance of data being accessed and shared by vehicles. This technology may seem new, but the U.S. Department of Transportation (DOT), in a joint research effort with the Society of Automotive Engineers (SAE), has already started setting V2V and V2I communication standards, such as using a 5 GHz frequency for data transmission.

Vehicle-to-Vehicle

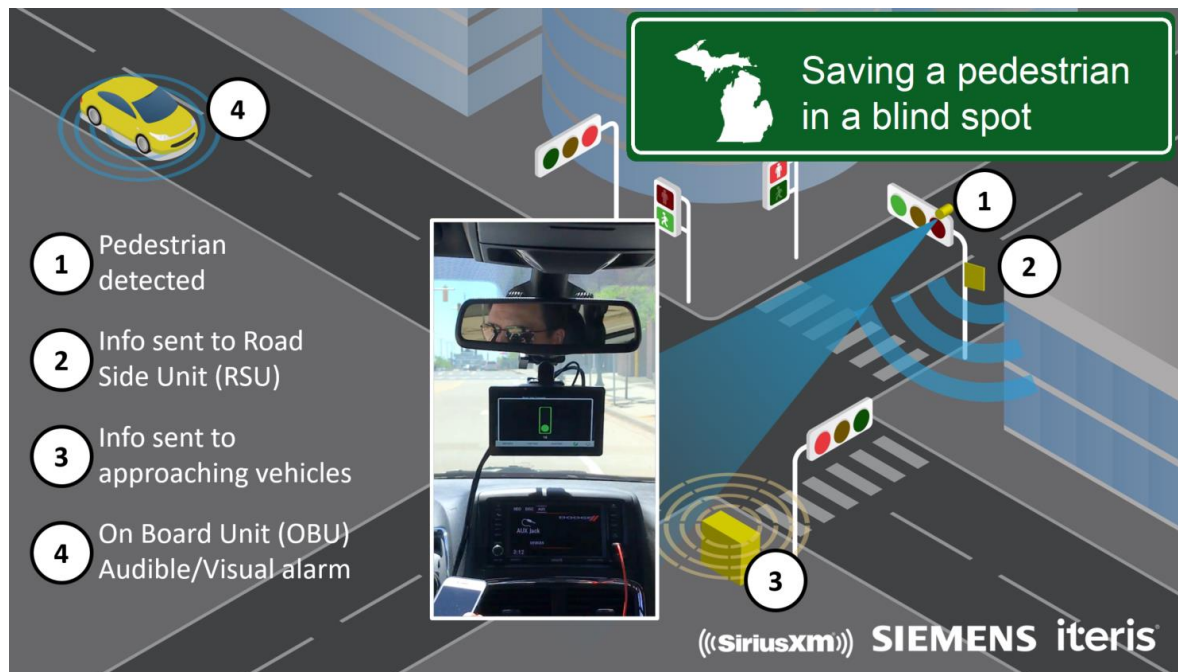
Vehicle-to-vehicle (V2V) communication's ability to wirelessly exchange information about the speed and position of surrounding vehicles shows great promise in helping to avoid collisions, ease traffic congestion and reduce emissions. But the greatest benefits can only be achieved when all vehicles can communicate with each other, which will require long-term vehicle fleet turnover.

V2V applications enable crash prevention, and require low latency/rapid communications via Dedicated Short Range Communications (DSRC) devices or future 5G services. V2I applications enable telecommunication, safety, mobility, and environmental benefits with DSRC or slower 4G communications. Their foundation of physical and digital infrastructure support data communications to enable real-time driver advisories and warnings of imminent threats and roadway hazards.

Vehicle-to-Infrastructure

Vehicle-to-Infrastructure (V2I) is the next generation of intelligent transportation system (ITS). V2I technologies capture vehicle-generated traffic data, wirelessly providing information such as advisories from the infrastructure to the vehicle that inform driver safety, mobility, or environment-related conditions. State and local agencies are likely to install V2I infrastructure alongside or integrated with existing ITS equipment. Because of this, the majority of V2I deployments may qualify for similar federal-aid programs as ITS deployments, if the managing agency meets certain eligibility requirements (the City would need to explore eligibility). Convenient V2I services like e-parking and electronic tolling are already in use. These communication technologies can be enhanced to provide better traffic and travel condition information to facilitate better decision-making among travelers and transportation managers.

V2I is part of V2X, where the vehicle is able to communicate with everything (the internet of things). Pedestrians are included in this, and it is becoming clear through V2I pilot deployments that pedestrian-carried devices using GPS to track their location, heading and speed are too imprecise (plus or minus several feet) to serve as a crash reduction tool. The need to supplement on-vehicle sensors with video detection/smart sensors is key to delivery of pedestrian in crosswalk warning to connected (not yet automated) vehicles expected to have significant market penetration by 2022.



Together, V2V and V2I applications have the potential to significantly reduce many of the deadliest types of crashes through real time advisories alerting drivers to imminent hazards. Connected vehicles have the potential to detect hazards such as veering close to the edge of the road; vehicles suddenly stopped ahead; collision paths during merging; the presence of nearby communications devices and vehicles; sharp curves or slippery patches of roadway ahead.

Connected vehicle safety applications are designed to increase situational awareness and reduce or eliminate crashes through V2V and V2I data communications. Connected vehicle mobility applications provide a connected, data-rich travel environment. These communications may support driver advisories, driver warnings, and vehicle and/or infrastructure controls, by capturing real-time data from equipment located on-board vehicles (automobiles, trucks, and buses) and within the transportation infrastructure. A Connected Vehicle infrastructure deployment will generally include several elements such as:³⁶

- Roadside sensors and communications equipment (for DSRC or other wire-less services) together with enclosures, mountings, power, and network backhaul. Smart sensor detection systems are needed at intersections to assure that pedestrian and bicycles are detected, regardless of whether they possess mobile devices. These systems are unlikely to improve safety outcomes on their own; the underlying pedestrian and bicycle safety issues, principally intersection designs that create unsafe conditions for people walking and biking, must first be addressed. National data shows 25 to 60 percent of pedestrian and 37 to 65 percent of bicycle injury and fatal crashes occur at intersections.³⁷
- Backhaul communications are essential supporting infrastructure needed for V2I deployment. Both fiber and wireless broadband needs are expected to grow exponentially to accommodate the growth of CVs and AVs. Organizations such as the National League of Cities encourage public agencies to be proactive in reaching out to the dominant providers in their region to plan the growth of wireless broadband and fiber optic infrastructure.
- The importance of maintenance of existing signage and markings is critical, as new materials are coming

³⁶ Connected Vehicle Field Infrastructure Footprint Analysis: Preparing to Implement a CV Future, USDOT, 2013.

³⁷ http://www.pedbikeinfo.org/pbcat_nc/ , accessed March 24, 2018.

to market that provide better retro-reflectivity and “digitize” the infrastructure for better communications with CAVs. The City should prioritize and fund necessary operations and maintenance budgets for all transportation technology currently deployed, even at the basic level of signs and markings.

- Upgrade traffic signal controllers to Advanced Traffic Controllers (ATCs). These ATCs have the functionality and capabilities necessary to support future deployment of roadside units (RSUs) for V2I communications, for applications that require signal phase and timing (SPaT) data. As a part of an ongoing Traffic Signal Synchronization program, the City should focus on increasing the deployment of ATCs City-wide, and should continue to track ATC deployment until 100 percent of all traffic signal controllers are ATC. Systems and processes required to manage security credentials and assure a trusted network are also recommended.
- Mapping services that provide highly detailed roadway geometries, signage, and asset locations for the various Connected Vehicle applications.
- Positioning services for establishing vehicle locations to high degrees of accuracy and precision. These will likely include smart sensors at signals and street lights to supplement on-board vehicle detection, especially of vulnerable road users such as people walking and biking.
- Data servers for collecting and processing vehicle data and for distributing user advisories and alerts.

The National League of Cities encourages cities to become active investment partners in deployment of V2I. They emphasize that cities should assess their current procurement policies, and evaluate whether these policies might inadvertently present any roadblocks to purchasing the technology and smart infrastructure necessary to support AV deployment. Likewise, cities should proactively establish partnerships with the dominant V2I technology provider(s) in their region to plan the growth of infrastructure while meeting future needs with respect to public safety, multimodal transportation network conditions, and the interaction of connected devices with local mobility policy priorities.³⁸

The City must first update its policies to ensure that C/AV comply with established policy priorities and value frameworks. These frameworks and policy priorities include, but are not limited to, transportation demand management and VMT reduction strategies, the “people-first” approach to managing public rights-of-way, the creation and maintenance of low-stress bicycle and pedestrian networks, equity-related objectives that redirect mobility resources to underserved communities, and crash-reduction frameworks such as Vision Zero. The City will then need to update its infrastructure to enable connected and autonomous vehicle technology.

AUTONOMOUS VEHICLES

Autonomous or “self-driving” vehicles are defined by the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) as “those in which operation of the vehicle occurs without direct driver input to control the steering, acceleration, and braking and are designed so that the driver is not expected to constantly monitor the roadway while operating in self-driving mode.”³⁹ An autonomous vehicle (AV) is one that takes full control of all aspects of the dynamic driving task for at least some of the time. To operate most efficiently, AVs must also be CVs.

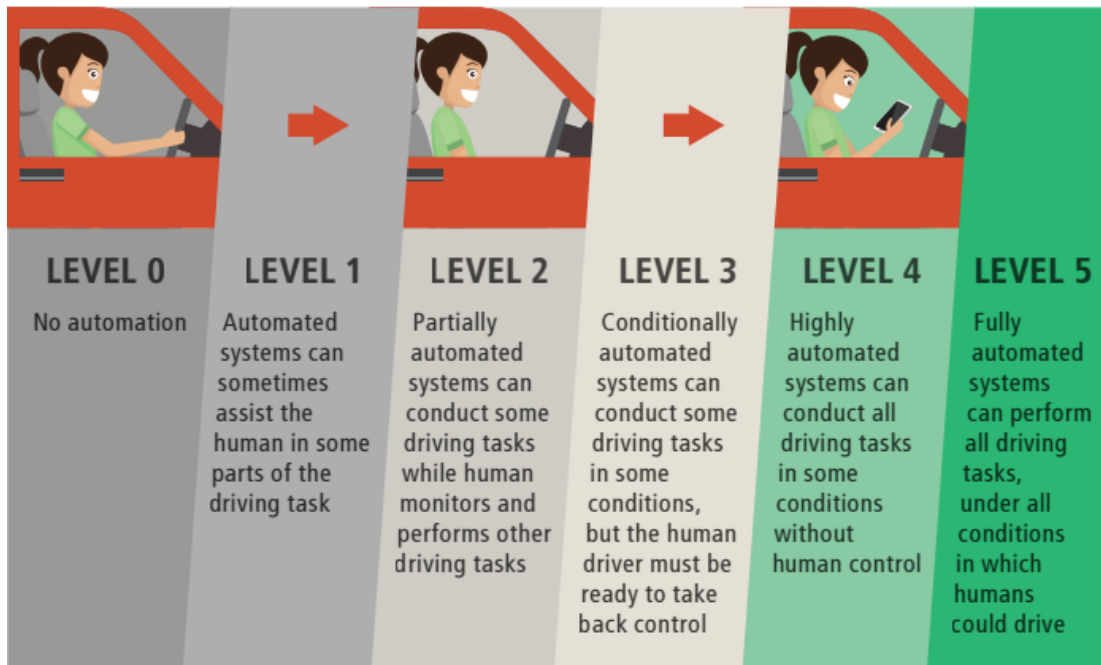
The Society of Automotive Engineers International (SAE) has defined six levels of automation, illustrated in **Figure D-1**. The National Highway Traffic Safety Administration (NHTSA) adopted these definitions in 2016. As levels of automation increase, the role of the driver shifts from one of active control of the vehicle, to monitoring, to limited or no involvement in driving tasks. When discussing Level IV and Level V automation, which do not require human operations in most conditions, vehicles are generally considered “autonomous,”

³⁸ Autonomous Vehicles: A Policy Preparation Guide, National League of Cities, p 7-8.

³⁹ <https://www.transportation.gov/briefing-room/us-department-transportation-releases-policy-automated-vehicle-development>

while “automated” vehicles can possess any level of automated functions, from Levels I through V.

Figure D-1: Levels of Automation



Source: Discussion Guide for Automated and Connected Vehicles, Pedestrians and Bicyclists, <http://www.pedbikeinfo.org/>

Current AV technologies rely on complex systems of cameras and sensors used to navigate the road without the need for human operation. These technologies allow for people to occupy themselves with activities other than operating the vehicle during trips—akin to activities on public transportation—but do not by themselves represent a large potential for efficiency at the scale of regional roadway networks. This is particularly true during the early period of autonomous vehicle adoption, when autonomous vehicles make up a small share of total vehicles on the road. However, connected vehicle technology offers the potential to reduce the need for the camera systems through a mix of V2I and V2V technologies, which will allow traffic system management to regulate (mostly autonomous) vehicle operations at a large scale to maximize system efficiency rather than individual vehicle efficiency.

Many original equipment manufacturers (OEM), such as Ford and General Motors (GM), have made ambitious claims as to their timeframe for making Level 4 AV technology available in new models as early as 2021.⁴⁰ There is evidence that automakers are taking necessary intermediate steps to meet this timeline. For instance, in January 2018 GM submitted a petition seeking US government approval for a fully autonomous car (one without a steering wheel, brake pedal or accelerator pedal) to enter their first commercial ride-sharing fleet in 2019. The company followed this move with an investment of \$100 million to upgrade two major factory facilities as it prepares to build production versions of its Cruze self-driving car to introduce a Level 4 AV ridesharing service in 2019.⁴¹

There are also Level 4 autonomous, low-speed electric vehicles (LSEV) now being manufactured by firms such as Local Motors, Navya, and EasyMile. Because they lack steering wheels and brake pedals, they require

⁴⁰ Belvedere, Matthew J. 2017. “Ford Aims for Self-Driving Car with No Gas Pedal, No Steering Wheel in 5 Years, CEO Says.” January 9, 2017. <https://www.cnn.com/2017/01/09/ford-aims-for-self-driving-car-with-no-gas-pedal-no-steering-wheel-in-5-years-ceo-says.html>

⁴¹ Hawkins, Andrew J. 2018. “GM Will Pump \$100 Million into Its Self-Driving Car Production.” The Verge. March 15, 2018. <https://www.theverge.com/2018/3/15/17124428/gm-self-driving-car-production-100-million>.

waivers from the Federal Motor Vehicle Safety Standards (FMVSS) to operate on public roads.

Typically deployed as shuttles within campuses and other controlled operating environments, they can carry eight to 15 passengers at speeds of 15 to 25 mph. EasyMile's EZ10 driverless shuttle became the first such bus approved to run on public roads in California, as it made its debut on the public roads of Bishop Ranch on March 6, 2018.⁴² LSEV speeds are compatible with bicycle boulevards, where the speeds of vehicles are reduced to support a small differential between vehicle and bicycle speeds. On lower-speed streets and on appropriately wide multi-purpose paths, LSEV and bicycle networks may be compatible for parallel operations. The timeframe for bringing Level 5/full automation technology to market is hard to forecast; however, several studies estimate that Level 5 cars will be available on public roads in the late 2020s. This information is from the recent NCHRP Research Report 845, Advancing Automated and Connected Vehicles: Policy and Planning Strategies for State and Local Transportation Agencies, which defines options as:



"The transportation community can choose to wait and react. Or, decision makers can reframe the conventional public policy discussion to responsibly and assertively advance AV and CV technologies in light of social interests, adopting the principles of rapid learning and shared knowledge creation."

Efforts to deploy more C/AV technology into the transportation network are being led by the Vehicle-to-Infrastructure Deployment Coalition, a nationwide partnership among infrastructure owners and operators and automobile manufacturers with a vision for "An integrated national infrastructure that provides the country a connected, safe and secure transportation system taking full advantage of the progress being made in the Connected and Autonomous Vehicle arenas."⁴³



C / AV INTERACTIONS WITH VULNERABLE USERS

The Pedestrian and Bicycle Information Center cautions⁴⁴ that it is not yet well-understood how C/AVs will interact with other modes, particularly people walking and biking. Hastily planned C/AV infrastructure may create difficult conditions for people walking and biking, while even carefully planned C/AV infrastructure may result in unintended consequences for vulnerable road users. Some of the potential conflicts between C/AVs and people walking and biking may include:

- **Detection:** C/AVs may be unable to detect people walking and biking to the same degree of accuracy as other vehicles, particularly in low-visibility conditions. This is because the underlying automation programming of C/AVs is typically better trained to anticipate vehicle movements than person-

⁴² Bloom, Jonathan. 2018. "California's First Driverless Bus Hits the Road in San Ramon." Bishop Ranch. March 6, 2018. <https://www.bishopranch.com/media-coverage/californias-first-driverless-bus-hits-the-road-in-san-ramon/>.

⁴³ <https://transportationops.org/V2I/V2I-overview>, accessed 3/15/18.

⁴⁴ Pedestrian and Bicycle Information Center. 2017. Discussion Guide for Automated and Connected Vehicles, Pedestrians, and Bicyclists.

movements, which are less predictable. Some of the current C/AV detection systems rely on cues from the built environment, such as lane striping. There is a need to consider roadway design enhancements such as high-visibility bike lane striping and pedestrian crossings to provide additional contextual warnings to improve C/AV detection of people walking and biking.

- **V2P:** Wireless beacons mounted on C/AVs may improve detection of people walking and biking by connecting directly with people's mobile devices (V2P) as well as with infrastructure (V2I). However, consideration must be given to people who are not carrying mobile devices either by choice or because they do not have the means to own one. For instance, children, who typically have less access to mobile devices, may not be detected by wireless beacons. Wireless beacons may also not function properly in areas with wireless service interference (e.g. urban canyons), or general system failure during inclement weather or emergencies. All people have a right to travel on public streets safely, so ultimately C/AV systems must find a way to detect and respond to all road users, not just those carrying mobile devices.
- **Communications:** Currently, interaction between human drivers and people walking and biking is often negotiated by head movements, hand gestures, facial expressions, or verbal signals. For instance, a conflict in which a driver turns across a sidewalk to enter a driveway and interrupts a pedestrian's trajectory may be resolved by the pedestrian using hand motions to let the vehicle pass (or vice versa). Many of these communication cues could be absent from or presented differently among C/AVs. Ongoing research at USDOT is evaluating methods of communicating cues and intentions between humans and C/AVs. Communication issues are likely to be made more challenging by mixed fleets with many different interfaces. Data-sharing across C/AV systems may be necessary to ensure that human/computer interactions are consistently integrated and tested across all vehicle makes and models and can be safely understood by people walking and biking.
- **Right-of-Way:** Driver failure to give right-of-way to pedestrians and legal crossings is a leading cause of pedestrian crashes.⁴⁵ It is not well-established how C/AVs will yield right-of-way. Automobiles, regardless of the level of automation, should give pedestrians the right-of-way at legal crossings and make every effort to avoid crashes with people walking. It is important for the City to establish the safety of people walking and biking as a high priority in the hierarchy of rules governing C/AV operations.
- **Passing and Pickup/Drop-off Conflicts:** At the curbside, the increase of ride-hailing services has already caused an increase of pickup and drop-off activity in many areas. By increasing the volume of hailed rides, C/AVs may increase challenges to people biking when attempting to pass a bicyclist or make a pickup/drop-off at the curbside, interrupting the bicyclist's trajectory. With sufficient C/AV infrastructure, a safe bicycle passing and/or following distance could be standardized by state or federal regulators. Additionally, cities can regulate where ride-hailing vehicles may pickup and drop-off passengers in dedicated loading zones in high-demand areas, restricting them from the most popular bike or transit corridors.
- **Automation and Driver Handoff:** Level II and Level III automated vehicles, which may alternate between human and autonomous operations, present a particular challenge for people walking and biking. Due to problems with detection or communications (see above), Level II and III automated functions may be unable to make critical decisions and may hand over control back to a human driver in some mixed-traffic environments. The handoff between automated and human operations may leave a significant delay, and the human driver may be unprepared to make essential braking or swerve maneuvers to avoid a crash. In the absence of state or federal standards, there may be opportunities for cities to regulate where and when Level II and III automated operations are permitted. School

⁴⁵ Schneider, Robert J., and Rebecca L. Sanders. 2015. "Pedestrian Safety Practitioners' Perspectives of Driver Yielding Behavior Across North America." *Transportation Research Record: Journal of the Transportation Research Board* 2519 (January): 39–50.

zones, shared streets, and pedestrian-oriented districts may be unsuitable for these automated operations.

VERTICAL TAKEOFF AND LANDING (VTOL) VEHICLES

Planning for emerging transportation technologies may well include electric or hybrid-electric vertical takeoff and landing (VTOL) vehicles, popularly called flying cars or passenger drones. They are designed to accommodate around two to five passengers or the equivalent cargo weight; be highly energy efficient, with reduced or zero emissions; and be substantially quieter than a traditional helicopter due to their smaller electric engines. The vehicles are ultimately intended to operate autonomously, though they would be piloted in initial stages, under various concepts proposed by companies such as Boeing, Airbus, Google, and Uber. “Uber Elevate” is a research endeavor that would use Uber data collected by their ride-hailing service to assess items like hub location, hub size, hub occupation, load factor (passengers in seats), flight time, airspace separation, minimum ground time, charging time, passenger capacity, platform size and many more. This would allow starting on high-frequency routes providing passengers a minimum time-saving of 40 percent of the usual trip time. The “UberElevate Network” has proposed testing in Los Angeles, Dallas and Dubai starting in 2020.⁴⁶ After this testing phase, Uber plans to launch a consumer-facing “Uber Air” service with VTOL vehicles as soon as 2023.⁴⁷ The top level of parking garages are viewed as vertiport opportunities.⁴⁸ The City of Beverly Hills has the Santa Monica Five parking structures and several other above-ground structures in the business triangle which may become candidates for vertiport conversion. However, significant technological and regulatory hurdles – such as the need for new air traffic control networks, airspace regulations, and VTOL vehicle electric batteries – may block VTOL vehicles from becoming widely adopted. It is also questionable whether companies like Uber could operate VTOL vehicles at fares low enough to be both financially sustainable and viable as a consumer transportation service.



SHARED USE MOBILITY

Shared mobility services – the shared use of a vehicle, bicycle, or other mode – enable users to gain short-term access to transportation modes on-demand. The term shared mobility includes various forms of car sharing, bike sharing, on-demand ride sharing (carpooling and vanpooling), and on-demand ride-hailing services. It can also include alternative transit services, such as paratransit, circulators/shuttles, and microtransit. With many new options for mobility emerging, so have multimodal trip planning applications that aggregate these options and optimize routes for travelers.⁴⁹

MOBILITY AS A SERVICE

Taking the goal of ubiquitous, shared mobility a step further, Mobility as a Service (MaaS) is the integration of various forms of transportation services (public and private) into a single, digital mobility platform available on demand. At its core, MaaS relies on a digital platform that integrates end-to-end trip planning, booking, electronic ticketing, and payment services across all modes of transportation, public or private. If operated by public agencies, MaaS platforms are indispensable tools necessary to ensure that cities continue to achieve

⁴⁶ Hawkins, Andrew J. 2017. “Uber’s ‘flying Cars’ Could Arrive in LA by 2020 — and Here’s What It’ll Be like to Ride One.” The Verge. November 8, 2017. <https://www.theverge.com/2017/11/8/16613228/uber-flying-car-la-nasa-space-act>.

⁴⁷ Captain, Sean. 2018. “How Uber Plans To Get Flying Taxis Off The Ground.” Fast Company. May 2, 2018. <https://www.fastcompany.com/40522758/how-uber-plans-to-get-flying-taxis-off-the-ground>.

⁴⁸ <https://www.uber.com/elevate.pdf>, accessed March 19, 2018.

⁴⁹ Three Revolutions in Global Transportation, UC Davis and the Institute for Transportation & Development Policy, May 2017, p 11.

their mobility objectives despite the expected influx of low-cost transportation from C/AVs. Along with other pricing and curb/right-of-way management policies, MaaS platforms are key instruments to incentivize public transit ridership, reduce VMT, advance shared mobility services, and increase vehicle occupancy in shared, autonomous vehicles. Private sector MaaS tools may also add creative partnerships and incentives, and some are creating subscription payment models.

Many people increasingly do not make distinctions between public and private transportation options, rather assessing mode by cost, convenience, comfort, and travel times. With a deluge of potential new information about travel options and services, MaaS offers an opportunity to make the existing transportation network more efficient and user-friendly. MaaS involves the ability to plan, book, and pay for trips among variety of modes from single interface—ideally help improve access and save money among customers. MaaS offers cities the ability to create increasingly attractive incentives to take transit and other high-capacity modes, even in response to real-time operational changes or major travel demand changes. MaaS is a marked departure from where most cities are today, and from how mobility has been delivered until now. Building a platform that allows someone to move among multiple modes for a single payment is a challenging order for both public agencies and technology firms.

The Los Angeles County Metropolitan Transportation Authority (Metro) recently issued a request for proposals to develop a microtransit program, intended to produce a pilot program that would provide low-cost, on-demand transit service hailed by a mobile app. The service is intended to improve transit ridership by reducing travel times, improving access to employment centers, and enhance first/last-mile access to key transit lines. Metro runs trains and buses, serves as the county’s congestion management agency, and pursues pedestrian and cyclist infrastructure and initiatives. They are positioned “to leverage the opportunities new mobility services provide by, for example, working with member cities to thoughtfully allocate roadway space for transit, shared ride providers, bicyclists, etc., and shifting resources between buses, rail service, and shared ride services to efficiently move people around”.⁵⁰ The City should engage in focused collaboration with Metro to consolidate the large volume of trips passing through the City into fewer vehicles, and to maximize local benefits.

Transportation network companies (TNCs) like Uber and Lyft, and e-commerce companies like Amazon, are not just disrupting markets – they also disrupt the flow of traffic. TNC pickups have been documented in San Francisco to account for about 20 percent of traffic⁵¹ – but account for 65 percent of traffic violations.⁵² Parcel volume from the rise of e-commerce and just-in-time deliveries will only continue to grow – and with it, the number of double-parked trucks conducting deliveries. UPS racks up over \$1 million in parking fines annually in Washington, DC alone, and it is considered a cost of doing business.⁵³ This has made the most overlooked part of city streets into a fertile ground for innovation that does not disrupt traffic: the curb.⁵⁴

To achieve widespread shared mobility, TNCs need dedicated pickup/drop off locations, and freight vehicles need enough commercial loading zones to accommodate booming e-commerce. A possible solution that can help to alleviate some of the congestion, safety risks, and inefficiencies that come with the digital economy is to create a network of dedicated loading zones on each block that ensure that ride-hail, microtransit, or other

⁵⁰ https://3rev.ucdavis.edu/wp-content/uploads/2017/03/3R.Governance.Indesign.Final_.pdf, p 3.

⁵¹ Chu, Patrick. 2017. “Uber, Lyft Account for More than 20% of Traffic on San Francisco’s Streets, according to County of San Francisco.” San Francisco Business Times. June 13, 2017. <https://www.bizjournals.com/sanfrancisco/news/2017/06/13/uber-lyft-san-francisco-traffic.html>.

⁵² Kunkle, Fred. 2017. “San Francisco Police Say Most Traffic Tickets Go to Uber and Lyft Drivers.” Washington Post, September 26, 2017. https://www.washingtonpost.com/news/tripping/wp/2017/09/26/san-francisco-police-say-most-traffic-tickets-go-to-uber-and-lyft-drivers/?noredirect=on&utm_term=.f93c2521aa75.

⁵³ Halsey, Ashley. 2013. “In D.C., Parking Tickets Are a Cost of Doing Business - The Washington Post.” Washington Post, June 1, 2013. https://www.washingtonpost.com/local/trafficandcommuting/in-dc-parking-tickets-are-a-cost-of-doing-business/2013/06/01/6c693a56-b357-11e2-9a98-4be1688d7d84_story.html?utm_term=.ed9758e10697.

⁵⁴ <https://www.enotrans.org/article/ahead-curb-case-shared-use-mobility-sum-zones/>, accessed March 19, 2018.

private transit vehicles, can queue safely while picking up and dropping off passengers, without causing conflicts or shutting down through traffic. Through integration with ride-hailing platforms, each time a ride is requested, both drivers and passengers would be shown the location of the nearest Shared Use Mobility (SUM) Zone. The passenger would be picked up and dropped off at the legal SUM Zone, loading zone, or parking space closest to their destination. Likewise, expanding the use of urban freight management strategies such as metered commercial loading zones or off-hour loading strategies could help to reduce conflicts with other modes.

Though re-designating parking spaces as SUM Zones could provoke some opposition, as does the repurposing of any urban parking spaces, there are several precedents. The adjacent graphic shows a typical application in Washington DC, where 32 on-street parking spaces are reduced to 24 so that 8 SUM zones can be provided.



Cities are also increasingly dedicating on-street parking spaces to car and bike share services to encourage the use of shared mobility options. San Francisco is testing a two-year pilot of roughly 150 parking spaces specifically for car share services, like City Carshare and Zipcar, and similar programs are operating in Seattle and Washington, DC. Similarly, bike share programs, such as CitiBike in New York City, often take over one or multiple on-street parking spaces to site a station. Local communities such as West Hollywood and Santa Monica are also replacing on-street spaces with bike share stations, which now share a bike share system with Beverly Hills.⁵⁵ Like Washington's SUM Zones, these involve repurposing parking spaces in support of conscious efforts by municipalities across the country to encourage a shift in our transportation paradigm toward more convenient, environmentally friendly, and cost-effective options. Communities and businesses can leverage immediate benefits by reallocating on-street parking for higher-capacity, shared use modes. By letting go of a few parking spaces, residents, employees, customers, and visitors can enjoy smoother traffic flow and a wider range of mobility options.⁵⁶

ELECTRIC SCOOTER SHARE

Electric scooter-share services have recently been rolled out by startup firms in the Los Angeles region. Electric scooters are intended as an affordable commuting alternative to cut down on pollution and traffic congestion. These scooters, which weigh between 30 and 40 pounds and reach speeds of 15 mph, are picked up every night to charge, and repositioned each morning for commuters. Users find and unlock scooters with a smartphone app, and ride at costs of one dollar minimum plus 15 cents for each minute of riding. Users are required to have a driver's license. The scooter's 15 mph speed makes them incompatible for operation on sidewalks, and residents have complained to the City of Beverly Hills about scooters parked where they block people walking or using wheelchairs on city sidewalks. In response, the City of Beverly Hills City Council approved a temporary ban on any shared mobility device (Ordinance NO. 18-O-2757). These include dockless bikes, electric scooters and any other "wheeled device" powered by a motor (not including vehicles and motorcycles). Despite the ban, electric scooters continue to grow in popularity as a convenient alternative to driving.

REGULATING MOBILITY SERVICE PROVIDERS

In the past decade, cities have struggled to resolve the question of how to appropriately regulate mobility service providers that have often launched on public rights-of-way with little or no consultation with relevant authorities, and with varying degrees of adherence to applicable regulations. Despite the many benefits of on-

⁵⁵ <http://wehopedals.com/map/>

⁵⁶ <https://www.enotrans.org/article/shared-use-mobility-zones-fighting-congestion-home-rideshare/>, accessed March 19, 2018.

demand mobility – such as reductions in drunk driving and enhanced first/last mile access to transit – TNCs (and to a much lesser extent, microtransit services) have led to increased traffic congestion and, in many cities, declines in transit ridership, walking and biking.⁵⁷ These mobility service providers have also created numerous other problems that cities are still resolving, such as:

- Increased conflicts with bike lanes and public transit operators;
- Failure to properly license and background-check drivers according to existing taxi industry standards;
- Creation of a new class of low-wage, independent contractor employees who are not entitled to employment protections;
- Companies' refusal to share all but the most cursory data on travel patterns with regulatory agencies.

The extent to which cities should reallocate public rights-of-way to private mobility service providers – in effect, leveraging public resources for private gain – remains an open question that depends on how far cities are willing to go to enact and enforce regulations against the undesirable outcomes these providers may create. The newest chapter of this conflict has emerged since early 2017, when a variety of newer mobility service providers began deploying dockless bikes, electric bikes, and scooters in similar fashion to early TNCs. As with TNCs, these new operators seldom sought to operate within existing regulations, often resulting in official pushback and, eventually, conditional operating agreements establishing the terms under which the providers can legally operate in the city. Alongside user convenience and ubiquitous, low-cost mobility choices, the newest generation of bike share providers has led to unforeseen problems such as bicycle clutter on sidewalks and in front of building entrances, conflicts with pedestrians, poor bike maintenance and safety issues, user data security, and ongoing questions about the long-term sustainability of the operators' business model.

Before engaging with mobility service providers of any type, cities should carefully outline their policy outcomes and the benefits they seek from shared mobility, whether it is VMT reduction, enhanced first/last-mile access to destinations, or simply expanding local mobility options. Cities should then establish firm regulations and guidelines about how shared mobility providers may operate in the city such that these policy outcomes can be effectively met. These regulations may include caps on the number of TNCs or shared bikes allowed in various zones, pricing incentives to increase vehicle occupancies and reduce congestion, licensing and fair labor standards, and data-sharing requirements, among others. These measures underscore the fact that a city's rights-of-way are its most valuable public asset, and one that should be leveraged judiciously and under conditions that benefit all citizens, not just those who happen to be users of a particular shared mobility service.

The California Public Utilities Commission oversees statewide policies for TNCs, and is currently engaged in Phase III of a rulemaking process to refine regulations for these companies. In addition to existing state regulations, there are local business registration requirements and airport permit requirements in place in some areas of the state. San Francisco County Transportation Authority is seeking partners from the public and private sector to conduct a series of studies to better understand how these services and technologies are influencing our transportation network. Conclusions from these evaluations may be used to develop strategies, partnerships, or policy options that support citywide goals. If the City is interested in a research collaboration, they may contact: <https://www.sfcta.org/user/454/contact>

⁵⁷ Clewlow, Regina, and Gouri Shankar Mishra. 2017. "Disruptive Transportation: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States." UCD-ITS-RR-17-07. University of California - Davis: Institute of Transportation Studies. <https://steps.ucdavis.edu/new-research-ride-hailing-impacts-travel-behavior/>.

HYPERLOOP

Hyperloop has attracted a lot of attention recently as a fifth mode of transportation. Hyperloop is a fast transportation mode that is claimed to be the future of rapid transport of people and goods. Hyperloop system consists of a vacuum tube in which the vehicles are moving rapidly, vehicles are also known as passenger capsule cars.⁵⁸ Hyperloop can reach a speed of 700 miles per hour, making it possible to travel from Los Angeles to San Francisco in about 30 minutes. The advantages of Hyperloop system is its fast speed, low power consumption and relatively low cost of operation on a long run⁵⁹. Despite these advantages, there are major criticisms on the feasibility of such systems. Many experts believe that development and construction of such system is too expensive. The Hyperloop system could be very vulnerable to disruptive events (e.g. earthquakes, terror attacks, power outage, etc.) and has a very high risk to life⁵⁸. The images below show the Hyperloop project in Dubai. Virgin Hyperloop One, an LA-based startup, is working on this project. This project is supposed to make it possible to travel from Dubai to Abu Dhabi (86 miles) in about 12 minutes. The project is expected to be completed in 2020⁶⁰. Virgin Hyperloop One is also working on a demonstration project in Nevada and completed a feasibility study for a project in Missouri



⁵⁸ <http://www.rfwireless-world.com/Terminology/Advantages-and-Disadvantages-of-Hyperloop-Technology.html>

⁵⁹ <http://futureforall.org/2017/november/virgin-hyperloop-one.html>

⁶⁰ <https://hyperloop-one.com/>

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APPENDIX D: DESIGN GUIDANCE

The following sections provide best practice design guidance for the City for implementation of the Complete Streets Plan.

BIKEWAY DESIGN GUIDANCE

High-Visibility Bike Lanes



Dedicated bike lanes that utilize bright green paint to increase visibility of the bicycle ROW and demarcate conflict areas between bicyclists and vehicles.

Benefits

- Improve awareness of bicycle ROW.
- Improve safety and perceptions of safety, promotion of multi-modality, discouragement of illegal parking in bike lane.

Design Considerations

A skid-resistant, retro-reflective green paint should be used, delineated with standard white bike lane lines to provide consistency with other bike facilities and enhance nighttime visibility.

Appropriate signage and consistency in application should be used to aid motorists' awareness.

The colored markings may be applied along the entirety of the bike lane, at intersection approaches, and/or at conflict areas with driveways, turn pockets, or curbside parking.

Possible Locations

Corridors recommended for bike lanes or separated bikeways

High-Visibility Bike Lane on North Santa Monica Boulevard



Example of High-Visibility Bike Lane



Source: MyFigueroa Project

High-Visibility Bike Box



Designated spaces at signalized intersections that utilize bright green paint to offer bicyclists a safe and visible way to get in front of queuing vehicle traffic.

Benefits

Improves safety through increased visibility and prevention of right turn conflicts between vehicles and bicyclists. Reduces signal delay and provides priority to bicyclists while reducing vehicle encroachment into crosswalk. Can facilitate left turns and street crossing for bicyclists when extending across the vehicle ROW.

Design Considerations

A skid-resistant, retro-reflective green paint should be used, delineated with standard white bike lane lines to provide consistency with other bike facilities and enhance nighttime visibility. The box abuts the intersection at the head of the vehicle traffic lane and is typically 10-16 feet deep. Stop lines for vehicles and pavements marking shall be used to demarcate where vehicles must stop and designate bicycle ROW.

Bike Box in Portland, OR



Source: <http://streetwise.kittelson.com/posts/58-portland-or-aims-to-keep-cyclists-safe>

Bike Parking



Bicycle racks or lockers installed at transit stops and key destinations providing safe, convenient storage for bicycles.

Benefits

Supplements transit ridership and can expand transit sheds by enhancing intermodal connectivity and access. Can make transit more efficient by replacing time and space-consuming bicycle racks on trains and/or buses.

Design Considerations

Ensure there is adequate space surrounding bicycle parking to avoid impeding traffic on sidewalks and at transit loading locations. If multiple racks are installed, ensure at least three feet of space between them.

Possible Location

At major transit stops/hubs and major destinations, such as Wilshire Boulevard.



Source: Bike/Walk Tampa Bay

Bicycle-Only Signals



Bicycle-only signals use dedicated signal heads to facilitate bicycle movements at intersections separately from vehicles. This is for Class IV facilities.

Benefits

Improve safety by reducing bicycle/vehicle conflicts at intersections and discourage illegal and unsafe crossing maneuvers.⁶¹

Design Considerations

Green light times should be determined using the bicycle crossing time for standing bicycles at all existing signals and any new all-mode signals. In the United States, bicycle signal heads typically use standard three-lens signal heads in green, yellow, and red lenses. Push buttons, signage, and pavement markings highlight these facilities for bicyclists and motorists.

Examples of Bicycle-Only Signal Head and Signage



Source: LADOT Bike Blog



Source: MyFigueroa Project

⁶¹ NACTO, 2014. Urban Bikeway Design Guide.

Bicycle Detection/Indicator



System using a video detection camera that can distinguish bikes from vehicles, supplemented with an indicator communicating to the cyclist that the signal that is aware a bicycle is present and adequate green time is coming.

Benefits

- Reduces delays and increases efficiency for bicycle traffic.
- Improves safety by discouraging illegal and unsafe crossing maneuvers.

Design Considerations

There should be clear guidance to bicyclists on how to activate detection (e.g. what button to push, where to stand) and a visual indication that detection has occurred (e.g. a SmartCycle indicator light).⁶²

Possible Locations

Best applied at actuated intersections with bicycle infrastructure present. Can be combined with a bicycle-only signal, an advance bicycle phase, or split signal phasing for optimal effects.

Example of Bicycle loop detector marking on Broadway in Santa Monica, CA



Source: Alta Planning + Design

⁶² NACTO, 2014. Urban Bikeway Design Guide.

PEDESTRIAN INFRASTRUCTURE DESIGN GUIDANCE

Pedestrian-scale Lighting



Provides pedestrians with necessary illumination of the roadway and sidewalk and improves pedestrian mobility.

Benefits

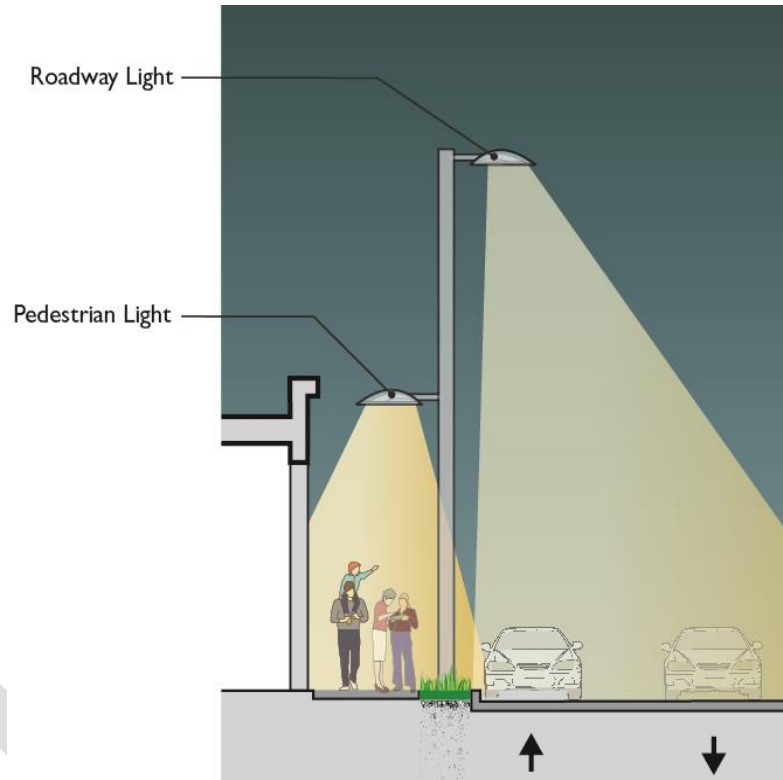
- Increases visibility of pedestrians at nighttime.
- Increases visibility of intersections, crosswalks, ramps, and pathway.
- May help reduce pedestrian-related collisions.

Design Considerations

The City shall refer to the Illuminating Engineering Society of North America (IESNA) Lighting Handbook for guidance on lighting requirements for different types of roadways, pedestrian activity, and land use context. Typically pedestrian-scale fixtures are 12-15 feet high.

Possible Locations

- Business triangle
- North Santa Monica Boulevard South
- Santa Monica Boulevard
- Burton Way
- Wilshire Boulevard
- Olympic Boulevard



Source: Lincoln Neighborhood Corridor Plan "The LiNC", CD+A

Sidewalk & Curb Ramp Repair and Maintenance



Provide pedestrians with continuous and unobstructed sidewalks. Curb ramps provides access for all users. The City's 2017 Sidewalk Inventory Report highlights existing sidewalk locations that need improvement and maintenance.

Benefits

Well maintained sidewalks encourage and support walking.
Ensures access and mobility for all users.

Design Considerations

Sidewalks shall be ADA compliant by providing a minimum width of 5 feet clear path.
Repair curb ramps to provide access between sidewalks.
Curb ramps should be designed with detectable warning strips per MUTCD standards

Possible Locations

Citywide. See City's Sidewalk Inventory Report for specific locations and prioritization.

Example of Wide Sidewalk on Rodeo Drive, Beverly Hills, CA



Source: Google Maps

Median and Pedestrian Refuge Island



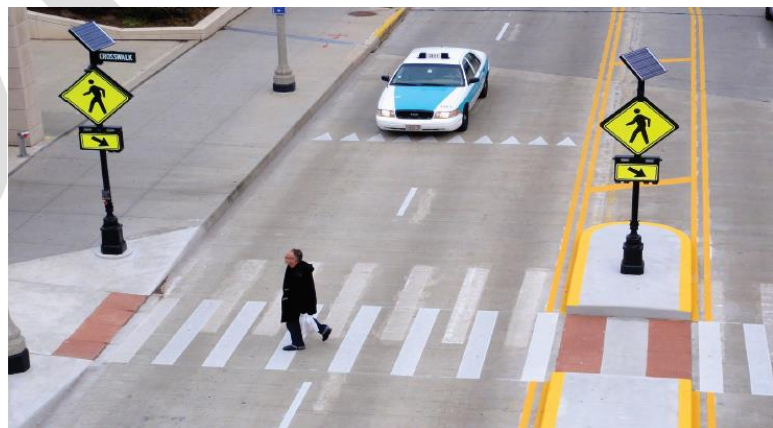
Provides pedestrians with a protected area when additional time is needed to cross a two-way roadway

Benefits

Enhances pedestrian safety and accessibility.
Reduces crossing distances.
Can serve as a traffic calming tool since roads would need to be narrowed at the intersection

Possible Locations

North Santa Monica Boulevard
La Cienega Boulevard
Olympic Boulevard



Curb Extensions & Bulb-outs



Curb extensions that reduce roadway width at the corners of intersections. Also known as gateway treatment when installed at the entrance or to mark a transition to a residential or low-speed street. Landscape bioswales and pervious pavement may be included in design.

Benefits

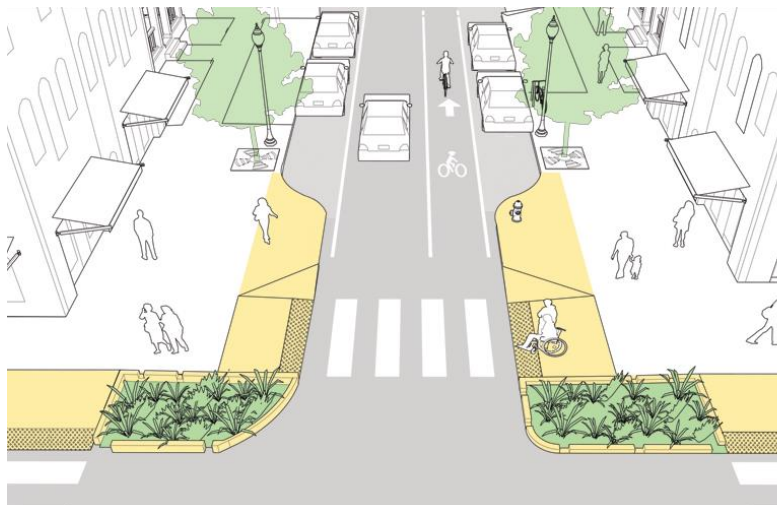
Improved safety for pedestrians due to higher visibility, shortened crossing distances, and reduced speed for vehicles turning due to narrower curb radii.

Design Considerations

Length of the bulbout should at least be equal to the width of the crosswalk, usually extending to the vehicle stop bar. Usually one or two feet narrower than the parking lane, when applicable. Changes may need to be made to accommodate drainage and/or bicycle infrastructure.

Possible Locations

Best applied at intersections with high pedestrian volumes and/or a high frequency of pedestrian conflict with turning vehicles. Limited to intersections of streets with parking lanes.



Source: NACTO

Example of Bulb-out on Canon Drive, Beverly Hills, CA



Source: Google Maps

Chokers



Mid-block curb extensions that reduce roadway width. Alternatively known as a “pinchpoint”.

Benefits

Reduces vehicle speeds and facilitation of pedestrian crossings for low-volume streets.

Design Considerations

If facilitating mid-block crossings, a marked crosswalk should be installed if the volume exceeds 2000-3000 vehicles per day.

Landscaping along the curb extension will give higher visibility and narrow the road profile for motorists, encouraging slower speeds.

Changes may need to be made to accommodate drainage and/or bicycle infrastructure.



Possible Locations

Best applied on low-volume residential or collector streets with moderate pedestrian activity.

Chicanes



Staggered mid-block curb extensions that alternate from one side of the street to another to form an S-shaped curve in the roadway. Alternatively known as “deviations” or “serpentes”.

Benefits

Reduces vehicle speeds due to horizontal deflection of vehicles along the ROW.

Design Considerations

Additional signing and striping may be necessary to ensure motorists are aware of the horizontal deviation in the roadway.

Chicanes can also be accomplished with alternating curbside parking availability on either side of the street.

Changes may need to be made to accommodate drainage and/or bicycle infrastructure.



Source: Bike.LAcity.org

Leading Pedestrian Interval



Leading pedestrian intervals (LPI) are proposed to allow pedestrians a head start to enter an intersection before vehicles. This allows for increased visibility of pedestrians and could reduce conflicts between pedestrians and vehicles.

Benefits

Collisions involving vehicles versus pedestrians within an intersection crosswalk could be reduced by the LPI treatment due to the increased visibility that pedestrians would have by getting the head start into the intersection. Locations for implementation should be guided by crash history documentation.



Source: TRB 2015 Annual Meeting

TRANSIT STOP DESIGN GUIDANCE

BUS STOP DESIGN AND PLACEMENT

Bus stop design elements can vary considerably, but generally fall into the following categories:

- **Passenger Experience:** Intended to ensure that passengers are comfortable and secure, that their experiences using transit are enjoyable, and that their needs are met
- **Information:** Help passengers quickly and easily understand the transportation options available to them, how the transit options work, and when or how often the transit options will service the location, including in real-time
- **Operations:** Designed so that both the buses and users can utilize the location as efficiently and safely as possible, while also minimizing bus delay



The amenities that should be provided at a transit stops and stations are dependent on the type of service and the ridership (measured in typical daily boardings) at the location. All minimum design elements presented below should be included in the appropriate stop types when possible. However, circumstances that might preclude installation of elements at a particular stop include:

- Amenities would compromise pedestrian or operational safety
- Adequate right-of-way is not available
- Plans are in place to relocate or close the stop

A standard bus stop (lower ridership) includes the minimum elements that should be provided for transit users to be safe and comfortable. Standard bus stops are typically located on local routes. As such, these bus stops often have bus routes with long headways, so providing seating would dramatically improve the rider experience. Recommended design elements of standard bus stops can be found in the table below.

Recommended Minimum Design Elements of a Basic Bus Stop

PASSENGER EXPERIENCE	INFORMATION	OPERATIONS
<ul style="list-style-type: none"> • Shelter • Lighting • Seating • Trash/Recycling Containers 	<ul style="list-style-type: none"> • Distinctive Branding • Pole and Sign • Information and Schedules • System Map 	<ul style="list-style-type: none"> • Paved Boarding Area • ADA-compliant Pedestrian Connections

Enhanced bus stops are designed to accommodate large loads of passengers and multiple buses at the same time. An enhanced stop is often located on a very active corridor and may provide transfers among different types of transit services, such as light or heavy rail corridors. An enhanced bus stop is typically located on both local and rapid bus routes.

In addition to all elements of a standard low-ridership stop, enhanced high-ridership stops should provide real-time travel information about when various routes are arriving, raised platforms and bus bulbs to improve the efficiency of the routes, bike parking, and transfers to other types of transportation services, like bikeshare or microtransit.

Recommended Design Elements of an Enhanced Bus Stop

PASSENGER EXPERIENCE	INFORMATION	OPERATIONS
<ul style="list-style-type: none"> • Lighting • Seating • Shelter • Trash/Recycling Containers 	<ul style="list-style-type: none"> • Distinctive Branding • Pole and Sign • Information and Schedules • System Map • Real-Time Display 	<ul style="list-style-type: none"> • Paved Boarding Area • ADA-compliant Pedestrian Connections • Raised Platform/Level Boarding • Bus Bulb • Bikeshare/Micromobility • Bicycle Parking

Stop placement guidelines describe the considerations that are involved in making decisions regarding new or relocated bus stops. The proper location of bus stops is critical to the safety of passengers, pedestrians, and motorists, as well as the safe and efficient operation of buses.

The initial step of determining placement of a new or relocated bus stop involves its proximity to the intersection. The placement of each bus stop can be classified as one of the following:

- **Near-side:** immediately prior to an intersection
- **Far-side:** immediately after an intersection
- **Mid-block:** between two intersections






Bus stops are generally located at street intersections to maximize pedestrian accessibility from both sides of









the street and provide connectivity to intersecting bus routes. Bus turning movements, driveways, and dedicated turn lanes sometimes restrict the placement of stops at or near an intersection and necessitate a mid-block stop. Mid-block stops may also be considered when destinations are a significant distance from intersections.

Each new or relocated bus stop must be examined on a case-by-case basis to determine their exact location. The following list details bus stop placement considerations related to customer convenience and comfort, accessibility, operational safety, and adjacent land use:

- Customer Convenience and Comfort
 - Proximity to expected trip generators
 - Visibility of bus stop zone and presence of street illumination
 - Connections to intersecting bus routes
- Accessibility
 - Adequate right-of-way to ensure the bus stop meets the Americans with Disabilities Act (ADA) accessibility standards
 - Presence and conditions of sidewalks leading to trip generators
 - Marked crosswalks and curb ramps at street intersections or midblock crossings
- Operational Safety
 - Volume and turning movements of other vehicles including bicycles
 - Adequate curb space to accommodate multiple buses, if necessary
 - Adequate sight distance to/from adjacent streets, intersections, and driveways
 - Proximity to rail crossings
- Adjacent Land Use
 - Ridership potential to support the investment of new stops
 - Adequate right-of-way to prevent encroachment onto private property

Bus Stop Placement Considerations

	Advantages		Disadvantages	
Near-side stops		Encourages riders to use nearby crosswalks		Most exposure to traffic delays. May require more than one traffic signal cycle
				Increases conflict with right-turning vehicles
				May block travel lane with queuing buses
				May obscure motorists' view of traffic control devices and crossing pedestrians

	Advantages		Disadvantages	
Mid-block stops		Typically improves access to destinations on large tracts		May require bus pullout on high-speed streets
				May encourage riders to cross street mid-block
				Motorists typically do not expect mid-block crossing pedestrians
Far-side stops		Encourages riders to use nearby crosswalks		May restrict travel lanes on far-side of intersection
		Reduces delay as operators have better chance of avoiding red light		
		Allows additional right-turning capacity before intersection		

The following situations are common determinants of bus stop placement:

- If the route alignment turns left at an intersection, the preferred location for the stop is the far-side of the intersection after the bus turns.
- If the route alignment turns right at the intersection, the preferred location for the bus stop should be on the far-side of the intersection after the bus turns.
- If there is a high volume of vehicles turning right at an intersection, the preferred location for a bus stop is on the far-side of the intersection after the turn.
- At intersections with complex, multi-phased traffic signals or dual right or left turn lanes, far-side bus stops are preferred because they eliminate buses from an area of complicated traffic movement at that intersection.
- When the route alignment requires the bus to make a left turn and it is not feasible or desirable to locate the bus stop on the far-side of the intersection after the bus turns, a mid-block stop may be warranted.
- Mid-block bus stops prior to left turns should be located a distance from the intersection that allows the bus to easily maneuver into the proper lane to turn left (a minimum of 100-150 feet for each lane change, depending on street speeds).
- When connections between two bus routes show a strong directional pairing (e.g., passengers connecting from eastbound to southbound route), placing one bus stop on the nearside and the other on the far-side can reduce pedestrian crossings at the intersection.
- Stops may be situated within the travel lane (i.e., at “bump outs” or “bulbs”) along highways situated within the urban core with two travel lanes in the same direction.
- Bus pullouts are acceptable at high ridership stops with significant dwell times or route terminal points.

Whenever possible, bus stops should not be placed within proximity of a driveway. However, if a driveway is unavoidable:

- Attempt to keep at least one exit and entrance open to vehicles accessing the property while a bus is loading or unloading passengers.
- Locate bus stops to allow good visibility for vehicles leaving the property and to minimize vehicle/bus conflicts. This is best accomplished by placing bus stops where driveways are behind the stopped bus.
- Never place a bus stop that forces passengers to wait for a bus in the middle of a driveway.

It is preferable to fully block (rather than partially block) a driveway to prevent vehicles from attempting to squeeze by the bus in a situation with reduced sight distance. The lack of parking restrictions can negatively impact bus service by limiting sight distances and passenger access. Potential issues that may arise include:

- Buses not being able to access the curb/sidewalk area to pick or drop off passengers
- Passengers forced to maneuver between parked vehicles when they board or alight
- Buses blocking travel lanes due to inability to access the curb

FIRST / LAST MILE IMPROVEMENTS

Regional transit agencies provide the bus and rail services in Beverly Hills, but users must complete the first and last portions of their trips on City-managed transportation infrastructure. First-last mile refers to the portion of a user's trip between their origin/destination and primary mode of travel. Per California's Complete Street law (AB 1358), streets must accommodate safe and efficient multi-modal transfer activity and support a wide range of mobility options. Reasonable thresholds for first-last mile sheds from a transit station as provided by the FTA are one-half mile for pedestrians and three miles for bicycles. The following recommendations should help guide the City in implementation of infrastructure to get people safely and efficiently to/from transit stops and stations.

Active transportation modes (i.e. walking, biking, wheelchairs, etc.) represent 85 percent of access/egress at Metro rail/BRT stations and 95 percent of access/egress systemwide.⁶³ The following are recommended for first-last mile transit connectivity through active modes and the built environment:

- **Increase average speed of active transportation users:** Decrease wait times at intersections and increase speed and capacity along key walking/biking routes to transit. Improvements near transit stations should include: pedestrian prioritized signal timing, reduced crossing distances through curb extensions, and provision of sidewalk widths that cater to a growing range of mobility demands. Sidewalks providing access to transit should have a minimum through width of 6 feet and of 8 feet if directly adjacent to moving traffic.
- **Provide a clear path of travel:** Minimum pedestrian through widths should be maintained separate from amenities that require additional width. For example, if the sidewalk is adjacent to a ticket vending machine or transit information kiosk, the minimum clear path of travel should be maintained outside of the area containing transit stop amenities to ensure station activity areas do not impede pedestrian travel. Pedestrian paths of travel from drop-off/pick-up zones and bus stops to rail station entrances should be direct as possible.
- **Enhance pathway safety:** Active transportation routes serving transit stations should be well-lit to accommodate riders traveling at all hours. Pedestrian-oriented lighting should be placed approximately every 30 feet focused on the center of the pathway.

⁶³ First Last Mile Strategic Plan, Los Angeles County Metropolitan Transportation Authority – Metro, 2014.

- **Ensure pathway quality:** Broken sidewalks or missing curb ramps present a significant barrier to pedestrians and users that require a wheeled mobility device. Pedestrian facilities serving transit should be kept in good maintenance and provide adequate provisions for users with mobility impairments, such as truncated domes.
- **Provide clear and intuitive navigation:** Pathways to transit should provide directional markers with walking and biking times to the station(s). Where applicable, signage to stations can be enhanced with real-time transit arrivals information.
- **Provide cut-throughs and shortcuts:** Where applicable, such as public parks or parking lots, provide cut-throughs that provide a shortcut over the standard street network with improved paving, lighting, shade, and directional signage.
- **Provide Pedestrian Scrambles at Metro rail stations:** Having already enhanced pedestrian safety and comfort in the Business Triangle of Beverly Hills, scrambles should be considered at the intersections serving Purple Line stations to prioritize pedestrian safety and visibility while reducing crossing times. Scrambles should have continental striping or highly visible patterns, with informational signage denoting appropriate crossing movements.
- **Support multi-modal transfer activity:** Bike share stations should be located at key bus stops and all rail stations with easy and identifiable access between the modes. Beverly Hills Bike Share, along with the other three systems of Bike Share Connect, should enable free transfers to transit, through multimodal fare integration with L.A. Metro's TAP card fare payment system. This approach is in keeping with L.A. Metro's approach to Metro Bike Share, which implemented a joint transit/bike-share balance on the TAP card in the system's next iteration, TAPforce. Under TAPforce, fares paid to bike-share and transit operators are treated interchangeably, enabling free or discounted transfers between bike-share and transit, just as the current system allows between bus and light rail.
- **Encourage appropriate parking behavior of dockless bikes and scooters:** Shared electric scooters (i.e. Bird and Lime) provide a powerful tool for bridging first-last mile gaps, albeit requiring new regulation for proper management.⁶⁴ In regulating the devices around transit stations the City should require operators to imbed geo-fencing within their mobile applications to encourage proper parking behavior which would require users to park and lock the devices in designated drop zones that do not interfere with pedestrian paths of travel or transit operations.
- **Provide covered and secure bicycle parking:** Bicycle parking at transit stations should be located adjacent to desire lines, and as close as possible to the station entrance, but not in locations that obstruct pedestrian movements.

⁶⁴ As of July 2018, the City of Beverly Hills has instituted a temporary ban on dockless bikes and scooters to allow time to evaluate how the devices can be properly managed on public rights-of-way.

VEHICLE INFRASTRUCTURE DESIGN GUIDANCE

Speed Humps



Raised, rounded surfaces placed across the width of the roadway between intersections. Longer and higher than speed “bumps” typically found in parking lots.

Benefits

Effective at slowing vehicle speeds at select locations, the magnitude of which depending on their spacing along a particular street segment.

Design Considerations

Usually 10 to 14 feet long and 3 to 4 inches high at the center with tapered ends near curbs to allow for proper drainage. Requires proper signage alerting drivers of their location.

Possible Locations

Best applied to local residential streets and collector streets with high volumes of pedestrian or bicycle traffic.

Example of Speed Humps in Beverly Hills, CA



Speed Table or Raised Crosswalk



A raised, rounded surface placed across the width of the roadway at a mid-block location. Similar to speed humps, but wider with a flat top that raises the entire wheelbase of a vehicle.

Benefits

Slows vehicle speeds at mid-block locations and increases safety for pedestrians and bicyclists.

Design Considerations

Usually 22 feet long with a height of 3-3.5 inches. Portions along the curb may need to be slotted accommodate drainage. Requires proper signage alerting drivers of their location.

Possible Locations

Best applied to collector streets with high volumes of pedestrian or bicycle traffic. Can double as a raised mid-block crosswalk.

Example of Raised Crosswalk, Beverly Gardens Park, Beverly Hills, CA



Raised Intersection



A flat-topped, elevated area with slanted edges that covers an entire intersection.

Benefits

Slows vehicle crossing speeds and encouraging motorists to yield to pedestrians at the crosswalk without encroaching. Does not impact curbside parking.

Design Considerations

Usually flush with the sidewalk though sometimes given a ridge for visually impaired pedestrians. ADA-compliant ramps and detector strips are required.

Possible Locations

Best suited for areas with high volumes of pedestrians and where other raised traffic calming measures would impact curbside parking. Should not be used at intersections along major transit or emergency vehicle routes.



Source: NACTO

Neighborhood Traffic Circle



A raised island in the center of an unsignalized intersection that forces drivers to maneuver around it rather than proceed straight. Alternatively known as a “mini-roundabout”.

Benefits

Slows vehicle crossing speeds and improves safety at intersections for pedestrians. Replaces the need for two or four-way stop controls.

Design Considerations

At least 15 feet of clearance should be provided between the widest point of the traffic circle and the corner of the intersection to provide adequate ROW for emergency vehicles.

Crosswalks and shared lane markings for bicycles should be clearly marked and signage should provide advance warning of the traffic circle for motorists.

Possible Locations

Best applied at minor intersections in residential areas where speeding is a common issue.



Source: Google Maps view of Laurel Avenue/Norton Avenue in West Hollywood

Roadway Reconfiguration – Lane Narrowing



Any treatment that narrows the width of the vehicle travel lane, be it widening sidewalks and/or the planting strip, curb extensions, or inclusion of bicycle facilities.

Benefits

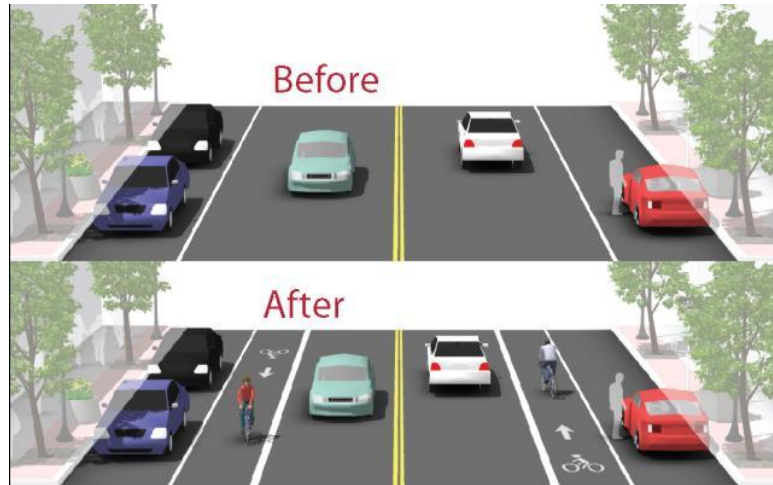
Narrower travel lanes help promote reduced vehicle speeds without deterring emergency or transit vehicles, making collisions less severe and improving safety for motorists and pedestrians.

Design Considerations

Lane widths of 10 feet are appropriate in urban areas. Multi-lane roads should have a wider outside or curbside lane where transit or freight vehicles may be present. Changes may need to be made to accommodate curves and bicycle infrastructure.

Possible Locations

Best applied in constrained urban settings and residential areas.



Source: Town of Braintree, MA

Example of Lane Narrowing to Accommodate Bike Lanes



Roadway Closure



The closure, either partial or full, of a street to through traffic using a physical barrier. A half-closure uses a curb extension to prevent through traffic in one lane only while a full closure uses a cul-de-sac to completely close the street to through traffic.

Benefits

Effective at reducing traffic volumes on particular streets without impeding pedestrian movements.

Design Considerations

May create traffic diversion through adjacent neighborhoods and thus should be carefully implemented with consideration of impacts on neighborhood residents.

Partial closures need to be implemented carefully so that vehicles meant to be stopped don't circumvent the barrier.

Possible Locations

Best applied on local neighborhood streets where excessive through traffic is an issue.

Example of Roadway Closure in Stockton, CA



Source: City of Stockton

Diagonal Diverter



Diagonally-placed barriers that block through access for vehicles across four-legged intersections, but still allow for turning movements.

Benefits

Effective at reducing traffic volume on particular streets without impeding pedestrian movements.

Design Considerations

Should be staggered to create circuitous routes through a street network. Impacts on local traffic such as neighborhood residents must be considered.

Barriers can be made traversable to allow unimpeded access for emergency vehicles and bicyclists.

Possible Locations

Best applied on local neighborhood streets where excessive through traffic is an issue.

Example of Diagonal Diverter



Source: Los Angeles County Department of Public Works

Forced Turn Barriers



Traffic islands or curb extensions design to prevent certain vehicle turning movements at intersections or that force traffic into specific patterns. Alternatively referred to as “pork chops”.

Benefits

Helps reduce traffic volumes by preventing turning movements.
Can improve safety for motorists, bicyclists, and pedestrians by reducing or eliminating conflicts associated with those turning movements.

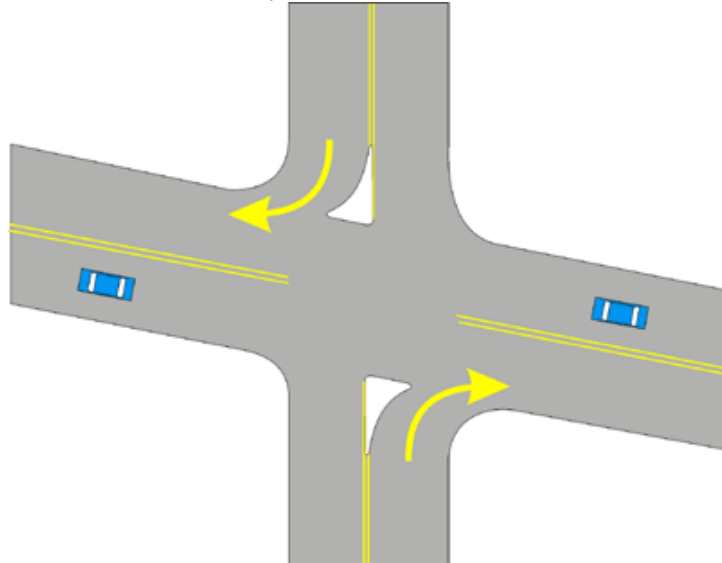
Design Considerations

Should be clearly visible and designed so that drivers are not maneuvering around them to make illegal maneuvers. Care should be taken that a traffic problem is not simply shifted from one street to another. Impacts on emergency vehicles should be taken into consideration.

Possible Locations

Best applied on local neighborhood streets where excessive through traffic is an issue.

Example of Forced Turn Barrier



Source: Los Angeles County Department of Public Works

Extended Median Barrier



Raised islands that follow the path of the centerline of a street through the intersection to prohibit opposing through or turning traffic at cross streets.

Benefits

Helps reduce traffic volumes at intersecting streets and improves safety by reducing or eliminating conflicts at intersections.

Design Considerations

Impacts on traffic on local cross streets as well as to emergency vehicles should be taken into consideration.

Possible Locations

Best applied at intersections where local neighborhood streets intersect with higher-volume collector streets.



Source: FHWA Safety - USDOT

Turn Restriction/Prohibition Signage



Signs that restrict or prohibit certain turning movements at designated intersections. It can be during certain times of day or always.

Benefits

May reduced traffic volumes at intersecting streets and possibly improve safety by reducing or eliminating conflicts at intersections. Low cost infrastructure, but potential high cost enforcement.

Design Considerations

Enforcement should be used to ensure compliance and reduce violation rates. If used to create circuitous routes, impacts on local residents should be taken into consideration.

Possible Locations

Most effective during specific peak hours.
Can be used to control through-traffic on a variety of street types.
Turn restrictions may be applied during peak hours at:
Olympic Boulevard
Wilshire Boulevard



Source: MUTCD

Speed Legend



Numbers painted on the roadway that display the speed limit.

Benefits

Increase awareness among motorists of a roadway's respective speed limit.
Inexpensive and of no deterrence to emergency vehicles.

Design Considerations

Should follow MUTCD guidelines.

Possible Locations

Best used in areas where speed limit sign posts may not be readily visible, on entry to local neighborhood streets, or areas where there is a reduction in speed limit.



Source: FHWA - USDOT

Traffic Signal Coordination



Implement major arterial traffic signal coordination based on traffic demand to improve operations. Advanced traffic controllers can accommodate time of day plans and/or adaptive signal timing based on real time demands at the intersection. Vehicles, pedestrians, and bicyclists can be counted and provided optimized traffic signal green times.

Benefits & Recommendations

The City of Beverly Hills has already initiated a Capital Improvement Project (CIP) to upgrade traffic signal control equipment that can be more traffic responsive. It is recommended to deploy additional technology for Roadside Units (RSUs) with Dedicated Short Range Communications (DSRC), and/or 5G cell sites, to enable roadway infrastructure communications with Connected (not yet Autonomous) Vehicles that are expected to have significant market penetration over the next five years. This would facilitate Vehicle-to-Infrastructure (V2I) communications for applications such as construction zone/reduced speed zone ahead warnings, pedestrian in crosswalk warnings, and many others. Although no Crash Reduction Factors (CRFs) are available for V2I deployment, due to their ongoing pilot deployment research in the cities of New York and Tampa Bay, literature suggests up to an 80 percent reduction in crashes when the entire vehicle fleet is connected. The City may consider related measures for traffic signals, such as enhancing their visibility with the addition of reflective borders. With the implementation of retroreflective signage. In addition, smart signs are compatible with traditional signage.

Possible Locations

Citywide.

CURBSIDE MANAGEMENT

As Mobility-as-a-Service providers evolve and autonomous vehicles become more ubiquitous, constraints on curbsides will become more acute, particularly at key transit nodes that generate demand for pick-ups/and drop-offs. The strategies below provide recommendations for enhanced future management of curbsides near transit stops.

- Prioritize transit operations with bus bulbs on Wilshire and Santa Monica Boulevards:** Passenger pick-up/drop-off activity is likely to increase along high-frequency transit corridors like Wilshire and Santa Monica Boulevards due to the continued growth of ride-hailing and the opening of the Metro Purple Line Extension. This growth in passenger loading activity will increase the frequency of conflicts at the curbside between ride-hail vehicles and buses if unaddressed, impacting bus travel times and reliability and increasing congestion. Leverage the curbside to prioritize transit operations by creating bus bulbs (where feasible), or curb extensions that displace other curbside uses at strategically located bus stops, which reduce bus travel times by allowing them to board/alight passengers without leaving the general travel lane. When placed at near side or far side bus stops, bus bulbs also offer pedestrians the benefit of safer, shorter crossing distances on these busy arterials.
- Use designated passenger loading zones to redirect pick-up/drop-offs from the most congested intersections:** Passenger pick-up/drop-off areas (drop zones) should be close to transit station entrances as possible, but within a separately designated length of curb or from where transit stops are located, in order to reduce delay for transit vehicles and minimize conflicts with boarding/alighting passengers. Drop zone locations should not require passengers to cross more than one street or be located closer than 20' to crosswalk approaches. Sidewalks adjacent to pick-up/drop-off zones should



maintain a minimum width to ensure a clear path of travel (6') plus an additional 6'. Curb regulations should not allow parking durations greater than three minutes to encourage healthy turnover of curb space.

- **Delineate Shared Use Mobility Zones:** Separate drop zone curb space should be designated for taxis, ride-hailing, and microtransit services with signage, curb paint, and geo-fencing denoting the space as a Shared Use Mobility (SUM) Zone. Through geo-fencing integration with ride-hailing applications, each time a ride is requested, both drivers and passengers would be shown the location of the nearest Shared Use Mobility (SUM) Zone in which pick-ups and drop-offs can legally occur.
- **Ideally, passenger loading zones should be located a single right-turn around the corner from the most congested intersections along Santa Monica and Wilshire Boulevards:** Turning off of the main street to stop would reduce congestion on these corridors and allow more space along the curb to be dedicated to other uses. Where bike traffic is heaviest, right turn SUM zones may not be preferable, however.
- **Prohibit ride-hailing activity on the most transit- and bike-oriented corridors, during peak times:** Many of the most popular corridors for TNCs are also cities' most important transit and bike corridors, a conflict in which cities must act to preserve the priority of the highest-occupancy modes. Cities should consider prohibiting ride-hail pick-ups/drop-offs on the most transit-and-bike-oriented corridors during peak hours to maximize transit performance and reduce conflicts with people biking. Otherwise, TNCs will send as many vehicles as possible onto the street to capture riders first, a self-defeating situation which is likely to be exacerbated by the presence of zero-occupant vehicles, when fleets ultimately become autonomous.
- **Use flexible curb zones to reduce double-parking and accommodate multiple uses at different times of day:** Cities can deter double parking by creating effective freight and delivery zones by working with adjacent businesses to address their needs. One approach is to use curbside flex zones that operate according to different regulations, and for different curb users, at different times of day. During mid-day, late-night hours, and early morning hours, the zone could be used for commercial loading, while during the AM and PM peaks the zone would be reserved for passenger pick-up/drop-off or short-term on-street parking. It is recommended that the City initiate conversations with adjacent businesses along selected street segments to understand their curb space needs by hour of day for deliveries, patron parking, and shared use mobility zones

WAYFINDING DESIGN GUIDANCE

Pedestrian Wayfinding



Directs users to points of interest, enhances placemaking and acts as a conduit to transition between modes.

Benefits & Recommendations

- Provides the opportunity to enforce holistic branding or establish placemaking for a specific area or neighborhood.
- Directs visitors to key points of interest and facilitates access to local businesses.
- Directs pedestrians to and from other modes.

Design Considerations:

- Wayfinding should indicate direction and travel times in easily understood units, such as blocks or approximate walking time.
- Signage should be placed in the street furniture/curb zone and not interfere with pedestrian paths of travel.

Possible Locations

- Business Triangle
- Proposed Pedestrian Enhancement Streets
- Transit Priority Streets



Bicycle Wayfinding



Gives riders information that allows them to make informed decisions about which streets to ride. By following wayfinding, the bicycle rider arrives via the most comfortable and direct routes and by using improved crossings of major roadways.

Benefits & Recommendations

Confirmation signs: Lets riders know that they are continuing along the designated bikeway—their intended path of travel.

Turn signs: Alerts riders where to turn to continue on the designated bikeway. These signs are often paired with pavement markings to further prevent bicycle riders from missing turns.

Decision signs: Placed at the intersection of one or more bikeways. Decision signs include directional cues to key destinations, giving riders the information to select the best possible route to reach their intended destination.

Design Considerations:

Confirmation signs: Place every $\frac{1}{4}$ to $\frac{1}{2}$ mile on off-street facilities and every 2 to 3 blocks along bicycle facilities, unless another type of sign is used (e.g., within 150 ft of a turn or decision sign). Should be placed soon after turns to confirm destination(s). Pavement markings can also act as confirmation that a bicyclist is on a preferred route.

Turn signs: Place near-side of intersections where bike routes turn (e.g., where the street ceases to be a bicycle route or does not go through). Pavement markings can also indicate the need to turn to the bicyclist.

Decision signs: Place near-side of intersections in advance of a junction with another bicycle route or along a route to indicate a nearby destination. (MUTCD)

Possible Locations

Burton Way, Santa Monica Blvd, San Vicente Blvd
All proposed Class II corridors



Transit Wayfinding



Gives users information to make informed decisions about transit choices and facilitates access to and from stop locations.

Benefits & Recommendations

Guides riders to stops, connects them to transit transfers and other modes, and provides information about key destinations.

Helps riders choose travel options and update them with real-time info to better inform travel decisions.

Makes users aware of transit alternatives.

Helps to establish distinctions between types of service, such as local and rapid, and allows for distinctive branding and placemaking.

Design Considerations:

Place at regular intervals, especially at confusing areas and at decision points, where potential riders choose a transit route and travel path to access transit.

Name of stops, stations, and destinations should reinforce brand and be recognizable. At locations with multiple lines or stops, name of a specific geographic element can be used. Place in visible and predictable locations such as eye-level or overhead.

Distinctions among frequency are more useful to passengers than distinctions among modes. On maps, provide distinct thicker lines or bolder colors for frequent services.

Include tactile or audible cues, providing directional guidance at decision points and signs confirming the route taken, especially in confusing or difficult-to-navigate areas.

(NACTO Transit Street Design Guide)

Possible Locations

Santa Monica Blvd, San Vicente Blvd, Robertson Blvd, La Cienega Blvd
Transit Priority Streets



Parking Wayfinding



Clear and effective parking wayfinding improves overall user experience while improving management of the parking system and reducing conflicts with other modes.

Benefits & Recommendations

- Improves user experience and reduces stress related to parking.
- Reduces vehicle circulation and conflicts with other modes by reducing cruising for available parking.
- Directs users to underutilized facilities and alleviates pressure on highest demand spaces.

Design Considerations:

- Real-time availability should be displayed on signage for key parking facilities and direct users to alternate facilities when constraints arise.
- Consider holistic branding to emphasis parking's role in the overall transportation system and placemaking.
- Create full-bleed signage to enhance visibility.

Possible Locations

- Corridors leading to all public parking facilities.



APPENDIX E: PUBLIC OUTREACH SUMMARIES

The following pages summarize the community outreach events conducted to inform the Complete Streets Plan, as well as comments received on public drafts of the plan.

WORKSHOP HIGHLIGHTS



SUMMARY:

Approximately 40 community members, several Council and Commission members, and City staff from multiple departments attended the first workshop for the Beverly Hills Complete Streets Plan on Monday, March 12, 2018.

BEVERLY HILLS PRESENT/FUTURE: Meeting facilitators asked participants to select a word to describe Beverly Hills streets in the present and in the future. The most common words selected by participants to describe the present suggest an emphasis on cars, such as “congested,” “speeding,” and “traffic.” The most common word selected by participants to describe the future was, “safe.”

VALUES AND GOALS:

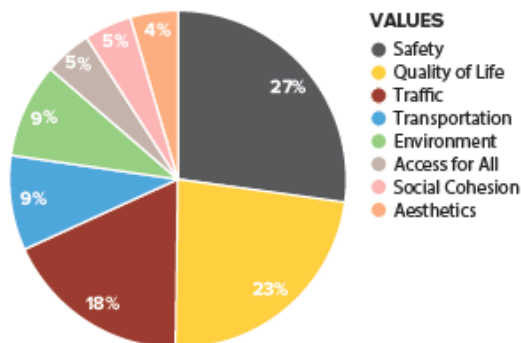
Values—Safety (25%), Quality of Life (22%), and Traffic (18%) rose to the top as most important for event participants.

Goals—Several common themes emerged when participants were asked to prioritize Plan goals:

- Expand bicycle infrastructure
- Reduce collisions and employ traffic calming measures
- Improve wayfinding / signage
- Improve and prioritize pedestrian spaces
- Expand transit routes, increase frequency / speed, connect to active transportation
- Increase street trees and plantings
- Educate all roadway users

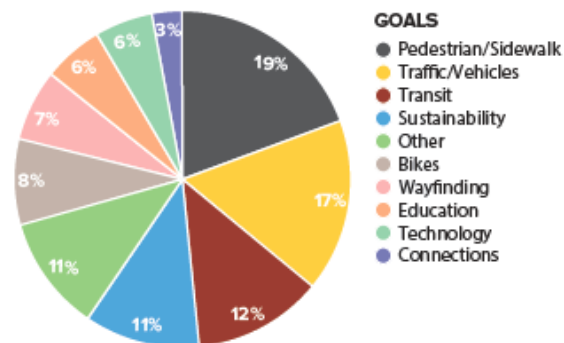
Additionally, participants expressed a desire for design recommendations that will promote/maintain the City’s “village” atmosphere; to consider diverse users groups including tourists, visitors, and businesses; and to facilitate the need for coordination with adjacent cities during Plan implementation.

NEXT STEPS: The values and goals for the Plan will reflect feedback received from this event, as well as feedback received from the online survey currently being conducted (www.beverlyhills.org/completestreetsSURVEY). Additional events are planned to gather further public input throughout the development of the Plan, including a walk audit, pop up event at the City’s Earth Day Celebration, and two additional workshops. Visit the project website (www.beverlyhills.org/completestreets) to stay up to date on event dates and details. Updates on this project will also be shared in monthly Traffic and Parking Commission (TPC) meetings. For the latest TPC meeting schedule, please visit: <http://www.beverlyhills.org/citygovernment/commissions/trafficandparkingcommission/>



VALUES

- Safety
- Quality of Life
- Traffic
- Transportation
- Environment
- Access for All
- Social Cohesion
- Aesthetics



GOALS

- Pedestrian/Sidewalk
- Traffic/Vehicles
- Transit
- Sustainability
- Other
- Bikes
- Wayfinding
- Education
- Technology
- Connections

EARTH DAY POP-UP HIGHLIGHTS



EVENT SUMMARY:

Approximately 40-60 community members, stopped by the Beverly Hills Complete Streets Plan booth at the City's Earth Day event on Saturday, April 15, 2018. Participants were engaged in two main activities: 1) a sticker voting activity to identify the complete streets design strategies they most want to see in the City; and 2) a mapping exercise in which participants were asked to identify corridors, areas, and intersections in the City they would like to see this Plan improve. All participants were either Beverly Hills residents, workers, or those who visit the City regularly from adjacent neighborhoods. Consultant staff, City staff, and Health & Safety Commissioner Lisa Schwartz were on hand to answer questions and engage with participants. See response summary on page 2.

SURVEY UPDATE:

186 survey responses have been collected as of 4/24/2018. The survey platform (Survey Monkey), captures respondent's IP addresses to ensure each response is unique. To date, the survey has been advertised on the project's website, at all project events, and social media.

NEXT STEPS: The project team is preparing for three additional events to gather public input:

1) May 30th Workshop: This event will focus on gathering input on the draft maps identifying corridors and intersections this Plan proposes to improve. Recommended plan improvements have been informed by previous planning studies completed to date by the City, the existing conditions and best practice analysis being conducted by the Consultant team as part of this project, and feedback received from community members at the March 12th and April 15th events.

2) June 9th Complete Streets Walk Audit: Consultant team members and City staff are currently planning this event, which will consist of a walking tour of two half-mile corridor segments. This will be followed by group mapping exercises to document patterns of behavior observed on the walk, and to identify other areas of the City where participants have observed issues they want addressed through this Plan.

3) August 22nd Workshop: This workshop will summarize how community feedback has shaped plan recommendations and will present the Plan draft for a round of community input.

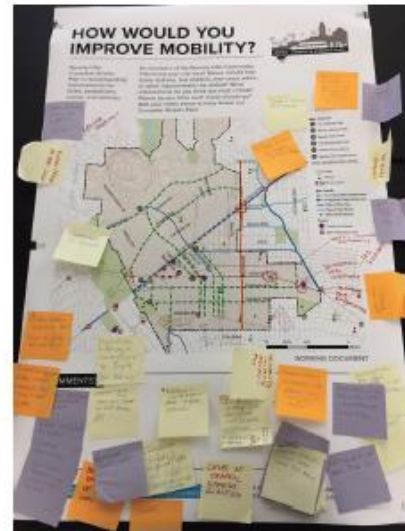
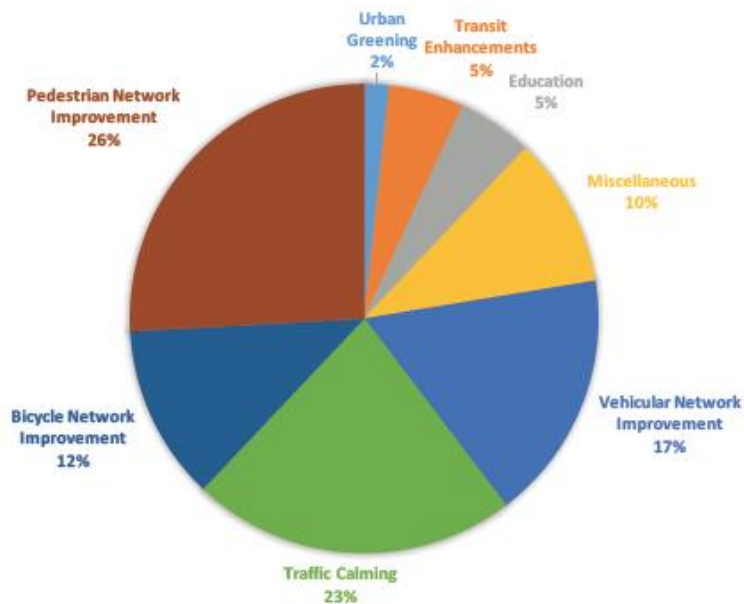
Visit the project website (www.beverlyhills.org/completestreets) to stay up to date on event dates and details. Updates on this project will also be shared in monthly Traffic and Parking Commission (TPC) meetings. For the latest TPC meeting schedule, please visit: www.beverlyhills.org/TPC



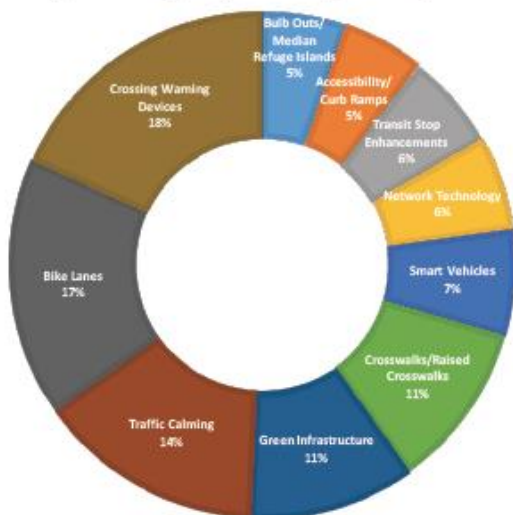
EARTH DAY POP-UP RESPONSE SUMMARY



"How would you improve mobility?" - 58 comments recorded



Vote for your top 3 priority Complete Streets elements - 44 participants



WORKSHOP HIGHLIGHTS



SUMMARY:

Approximately 20 community members attended the second workshop for the Beverly Hills Complete Streets Plan on Wednesday, May 30th, in addition to Council and Commission Members, and Beverly Hills staff from a cross section of departments. The focus of the workshop was to identify priority corridors and to make network recommendations that will be used to guide the Plan.

AREAS OF CONCERN:

Participants reviewed maps addressing modes of travel including transit, vehicular, bike, and pedestrian. There were 48 specific comments provided, with the bike and pedestrian maps comprising 71% of the total responses. In some cases, maps elicited feedback for different modes of transportation. When this happened, the comments were likely to be related to bikes or pedestrians.

COMMENTS AND RECOMMENDATIONS:

Participants had the most feedback on Bike (31%) and Pedestrian (29%) network maps. Vehicular (25%) and Transit (15%) maps received fewer comments. Comments were most frequently related to Bike network connectivity (15%), and Crossing Improvement, Safety Concern, and Traffic Calming each representing 10%.

Several common themes emerged throughout the workshop:

- Support of/interest in a shuttle route
- Desire for improved crosswalks
- Challenging biking conditions at Crescent and Wilshire, Sunset Blvd., and Rodeo Dr.
- Improved bike amenities including green lanes, protected lanes, and bike parking
- A need for enhanced pedestrian safety along Gregory Way, Olympic, and Beverly
- Use of traffic calming measures on Wilshire and Olympic

NEXT STEPS:

Community feedback will be incorporated into the network maps for each modality. Additional events are planned that will continue to solicit feedback and public input throughout the plan development, including a June 9th Walk Audit, an August 22nd Workshop, and monthly Traffic and Parking Commission meetings.



WALK AUDIT HIGHLIGHTS



SUMMARY:

Approximately 25 community members attended a walk audit for the Beverly Hills Complete Streets Plan on Saturday, June 9th, in addition to Commissioners and City staff from a cross-section of departments. Participants were split into groups to conduct a 90-minute walk audit, followed by tabletop exercises focused on how to re-design each corridor. The first group walked from Crescent Drive to Wilshire Boulevard while the second group traveled along South Santa Monica Boulevard. Participants were then asked to identify safety concerns for pedestrians, bicyclists, vehicles, and transit along their route and to offer suggestions for improvement.

ROUTE 1: CRESCENT DRIVE TO WILSHIRE BOULEVARD

Participants were most concerned with vehicular speeding and conflicts between vehicles and cyclists/pedestrians at intersections. They also noted the introduction of the Purple Line and how that would impact pedestrian travel as well as a need for rideshare drop-off areas. Additionally, they addressed the need to enhance parking options along this route.

RECOMMENDATIONS:

Participants desired design solutions to slow traffic. The intersection of Crescent and South Santa Monica was the area of greatest concern. Suggestions included:

- Reducing the turn radius
- Adding a second turn lane
- Enhancing visibility of speed limit signs
- Introducing scramble crossings

Another theme was the desire to indicate shared-use zones for bikes, scooters, and pedestrians. Participants were interested in the potential for a pedestrian overpass to encourage more pedestrian traffic. Finally, along Crescent, they recommended adding digital parking occupancy signage and to remove permit parking on the east side.



ROUTE 2: SOUTH SANTA MONICA BOULEVARD

Participants were most concerned with vehicular speeding along South Santa Monica Boulevard. Additionally, they identified narrow sidewalks as inhibiting pedestrian activity for the restaurants and small businesses located on the North side of the street.

RECOMMENDATIONS:

Participants were most concerned with the traffic infractions along this route among vehicles and cyclists, though they did not offer many suggestions for improvement other than enforcement of existing rules (ex. no right turn on red).

They were excited about the scramble crossings and suggested additional data be collected a few months after introduction in order to understand the impact. They were supportive of the partial road diet and eager to see it implemented on a larger stretch of the corridor.

They also noted that utility boxes make the sidewalk more narrow, inhibiting outdoor patio space for area businesses. In addition to business concerns, they noted that wheelchairs and strollers have a hard time navigating this area.

NEXT STEPS:

Community feedback will be incorporated into the network maps for each modality. Additional events are planned that will continue to solicit feedback and public input throughout the plan development, including an August 22nd Workshop, and monthly Traffic and Parking Commission meetings.



WORKSHOP HIGHLIGHTS



SUMMARY:

Approximately 25 community members attended Workshop 3 for the Beverly Hills Complete Streets Plan on Wednesday, August 22nd, in addition to Traffic & Parking Commissioners and Beverly Hills staff from a cross-section of departments. Iteris delivered a presentation summarizing draft plan progress, which included an overview of the city-wide network maps for the 4 modalities: walking, biking, transit, and vehicles. Following a brief Q & A session, participants were invited to circulate around the room to absorb information on the boards, segmented by each modality.



A summary of comments for each is below. Overall, the materials were well-received by participants. Some minor comments were recorded and will be considered as Iteris works towards finalizing maps.

PEDESTRIAN:

Participants expressed an interest in intersection improvements at Rexford and Charleville, as well as a pedestrian crossover bridge at La Cienga between Olympic and Gregory. Some felt that adding trees on Olympic, Wilshire, Robertson would improve the aesthetics of the parkways. Lastly, community members were interested in future planning efforts to assess building set-backs to allow for wider sidewalks for outdoor dining.

BIKE:

Several community members indicated parking protected bike lanes would be preferred to reverse angle parking, expressing concerns about driver confusion. Participants expressed interest in a Class III bike lane on Gregory Way, and Class II or Class III bike lane on Doheny between Santa Monica Boulevard and Beverly. The community members also suggested reduced fare for the bikeshare program and bicycle training classes that would encourage more people to bike safely in Beverly Hills.

TRANSIT:

Community members are enthusiastic about improvements to transit stop amenities, including more benches, shaded areas, and trash bins. They also commented on the need for higher capacity buses, bus lanes, and north/south routes in Beverly Hills, which falls outside the scope of this project.



VEHICLES:

Participants were concerned that additional pedestrian lights and signage could lead to confusion among drivers and they suggested consistent interventions whenever possible. Left-turn restrictions overall were positively received. They suggested more parking structures at the light-rail station near La Cienega and Wilshire, as well as adding a “kiss and ride” drop-off area.

NEXT STEPS:

Community feedback will be incorporated into the network maps for each modality as Iteris moves forward to delivering a draft plan in the fall. Additional opportunities for public input will be provided by the comments features on the website, and at monthly Traffic and Parking Commission meetings where this project has a standing agenda item.



DRAFT PLAN COMMENTS

Category	Comment	Likes	Page	Created	COBH Response
Recommended Infrastructure	Driving through the city, I see countless close encounters with bicycles. This is why I believe all bike lanes should be protected. Whether that is with Bollards or planter boxes, all bike lines should be protected.	2	20	04-11-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	Why does Olympic and Wilshire not have bike lanes? These streets are extremely busy and protected bike lanes would increase the safety of bicycles. In addition, the utilization of "islands" for bus stops allows for bikes to have a clear path while not impeding bus services.	4	21	04-11-2019	Wilshire and Olympic Boulevards are recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bus islands are included as a recommendation in this plan. No change required.
Recommended Infrastructure	Painted Bike Lanes are great, however they should be as close to the curb as possible. As such, I recommend that the parking and bike lines are flipped. To further protect bicycles, I also recommend the use of bollards between the parking and the bike lane.	2	23	04-11-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	Crosswalks that do not have stop-lights, should either have push-to-cross lights or the flashing lights near the high school. In addition, all crosswalks near schools and parks that do not have stop-lights should have push-to-cross lights or those flashing lights like the one's near the high school.	1	24	04-11-2019	No change required. The City's crosswalk policy that will be approved as part of the plan dictates that marked crosswalks at non-signalized intersections will not be approved/installed without additional treatments.
Recommended Infrastructure	The bike lanes on Sunset Blvd. should utilize the center median. That is a natural barrier that would minimize the interaction with vehicles. To mitigate accidents with vehicles, there should be a cutout to turn (to cross the would-be bike lane) and there should be a turn signal in which if a bike is sensed the turn signal turns red to allow bikes a safe passage.	0	21	04-11-2019	No change suggested. This design suggestion can be evaluated during implementation.
Recommended Infrastructure	This program could be expanded to look at bus stops. If bus stops had an "island" form, bikes would never have to interact with busy streets.	0	32	04-11-2019	No change required. This recommendation is included in the plan.
Miscellaneous	The city should see about the possibility of building parking beneath Reeves Park. The structure can encroach underneath the adjacent street to provide more parking. This would provide half a block walk to the Purple Line Station. In addition, the park would not be destroyed as you could place it on top of the parking structure. In addition, the city should look to buy the property from METRO (at Gale & Wilshire - behind the old Car Dealer and across from the Saban Theatre) and look to build a structure beneath ground. This would provide a short walk to the station. Like the Reeves Park, the city would be smart to implement another park here, providing green space to the Wilshire/La Cienega area.	0	32	04-11-2019	No change required. Building parking at Reeves Park is outside the scope of this plan. The City has purchased the Gale Staging Yard site and will be releasing an RFP for a mobility hub study of the property.
Recommended Programs	While many of your residents can afford this, those who traverse through to get to/from work cannot. Roads are for everyone and this is a bad idea. Do not give Beverly Hills a bad image.	2	33	04-11-2019	No change required. The City would not pursue this project, but would consider supporting a regional program depending on the recommendation
Recommended Infrastructure	I do not believe a bus lane would assist in alleviating traffic. Rather, if busses had an "island" where they can pick passengers up from, it would eliminate the consistent turning in-and-out of traffic to pick up passengers. In addition, with bus "islands" parking would become available on the streets without interfering with traffic.	2	33	04-11-2019	No change required. Bus islands are included as a recommendation in this plan.
Recommended Infrastructure	Instead of parking meters, utilize pay stations with space numbers painted onto the curbs. This will create a cleaner look for our streets and lower the cost to collect coins from meters. To increase pedestrian safety, I recommend the use of "Driver Feedback Signs" (Signs that utilize radar to determine speed and signal slow down to drivers), "Optical Speed Bars," and "Speed Cushions." The advantage of speed cushions is that emergency vehicles are able to drive through them without slowing down, whereas normal vehicles cannot.	0	28	04-11-2019	No change required. The City does not plan to convert meters to paystations at this time. Speed feedback signs are included as a recommendation in this plan. Speed lumps are included as a recommendation in this plan.

Category	Comment	Likes	Page	Created	COBH Response
Recommended Infrastructure	This is what I meant by "bus islands"	0	107	04-11-2019	No change suggested
Miscellaneous	Please state data source	0	76	04-11-2019	Added
Miscellaneous	Please state data source	0	77	04-11-2019	Added
Miscellaneous	should read "brake pedal"	0	116	04-11-2019	Revised
Recommended Infrastructure	I think all existing and new mid-block crossings need to have warning lights (rapid flash beacons, hybrid beacons, half signals) to alert drivers to slow down or stop. Signage and crosswalk striping are not enough.	3	25	04-12-2019	No change required. The City's crosswalk policy that will be approved as part of the plan dictates that marked crosswalks at non-signalized intersections will not be approved/installed without additional treatments.
Miscellaneous	There is this awkward intersection near the library (Rexford Dr./Clifton Way/Foothill Rd.) Lighting is poor, so pedestrians are not very visible at night. This area also needs crosswalk stripping to help vehicles pay attention to pedestrians.	1	25	04-12-2019	No change required. The City is in the process of evaluating options to improve this intersection for pedestrians, including striping and ADA upgrades.
Recommended Programs	I would love to see Beverly Hills take part in CicLAvia.	3	33	04-12-2019	No change suggested
Recommended Programs	Beverly Hills has probably some of most aggressive drivers in the greater LA area, especially those driving their fancy sports cars. Many drivers are distracted. I think motorists absolutely need to be educated and re-educated about traffic laws and safe driving best practices. Traffic laws also need to be better enforced by law enforcement. Drivers have cut me off as I am crossing the street countless times. Many drivers do the "California rolling stop" and don't stop for pedestrians or cyclists.	2	33	04-12-2019	No change required. The City can explore traffic law education as part of the grant-funded Awareness Campaign when it kicks off.
Miscellaneous	At night, many crosswalk signals don't respond to the "push-to-walk" button, unless there is a car also waiting to cross the intersection, for example Doheny Dr./Gregory Way; Doheny Dr./Charleville Blvd. Need to fix this...	3	37	04-12-2019	No change required. The City's traffic engineering team can investigate this issue.
Recommended Programs	I think a major factor forgotten in this plan is the tour busses/vans that are causing major traffic throughout the city. They drive 5-10 miles throughout the city in both residential and commercial areas, and also stop in the middle of the road therefore blocking traffic- they are major sources of congestion and pointless, unnecessary traffic. Additionally, there is already limited enough parking for single-vehicle cars- please don't take all of that away from us, most of it seems to be becoming valet parking at this point. Finally, the ride-sharing pickup/drop offs are certainly causing more traffic in areas throughout the city, but please don't give too much of our parking to ride-shares and tourist vans. Maybe combine them with taxi stands or loading zone areas. It has become a headache to live and work in this city.	2	43	04-15-2019	No change required. Curbside management will be addressed as part of this plan. The City evaluates tour bus loading outside of this plan.
Miscellaneous	Will the traffic lights throughout the city be re-evaluated as well? There are numerous lights throughout the city that do not 'line up,' causing traffic to be pointlessly stopped i.e. at Burton Way and Foothill. Additionally, streets such as Beverly Drive and Crescent Drive have traffic lights that are activated by pedestrians and turn red, but all the other lights on the street are green and traffic is virtually halted. There are for example 10 traffic lights going down Beverly Drive, but one will randomly turn red so the other green lights after are pointless, because no cars are allowed to go (i.e. stopped at the one random red light), therefore, causing more traffic. If the lights were timed better (including ones activated by pedestrians to match the timing of surrounding traffic lights)- it could help relieve some traffic in the city.	0	38	04-15-2019	No change required. The City is in the process of updating the traffic signal system. Specific observations will be referred to the City's traffic engineer.
Recommended Infrastructure	Not sure what the value of a bikeway is in "lower-speed" residential streets. If you visit this intersection for example you'll see you can easily bike the street with little to no	0	22	04-15-2019	Lower-speed residential streets provide a lower stress place to ride. Some residential streets may need less infrastructure than others to increase level of bicycling comfort. Design details will be explored during implementation. No change required.

Category	Comment	Likes	Page	Created	COBH Response
	hazard as it's low traffic. I can see why we'd use resources for higher volume areas but in this case it doesn't seem necessary				
Recommended Infrastructure	We don't need more distractions in our streets and intersections.	0	23	04-15-2019	No change suggested
Miscellaneous	The biggest complaint I actually have is valets near and around Canon. They have no regard for anyone and are always blocking driving lanes. Additionally any initiative that takes away parking spots in the city should not be considered. I understand if future technology might mean less parking used but let's actually consider that when it's proven. There are more people moving to LA and only a limited amount of land for spots.	0	43	04-15-2019	No change required. Valet operations are out of scope of this plan. Some changes in this plan may result in parking removal to accommodate other modes.
Recommended Infrastructure	The only legal way for East bound bike riders on Gregory to cross Robertson is if they get off their bikes and walk them north about 200' to the crosswalk.	0	21	04-16-2019	Dismounting and crossing at an unmarked crosswalk is legal. However, an intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection.
Recommended Infrastructure	Why no Bike Lane (or Protected Bike Lane) along Olympic Blvd?	1	21	04-16-2019	Olympic Boulevard is recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bikeways are not recommended on Olympic Boulevard on adjacent cities. No change required.
Recommended Infrastructure	Any thoughts about converting more busy intersections to a scramble/diagonal crosswalk? Would Wilshire/Rodeo qualify?	1	30	04-16-2019	No change required. Pedestrian scrambles are recommended as part of this plan. Specific intersections can be evaluated during implementation.
Recommended Programs	The studies do show that reverse angled parking is the safest, but it takes some getting used to. Perhaps try in a limited area such as Linden within the triangle. Also there are several overly wide streets such as Bedford and Camden which would be perfect streets to limit the lanes and add angled parking(may need to be the conventional type). This would calm the traffic AND increase available meters.	0	43	04-17-2019	No change suggested.
Recommended Infrastructure	Charleville is a residential street with 4-way stop signs at almost every intersection. And each block is relatively short. Constant stop & go takes a lot of energy from a cyclist. This is not the best way to encourage people to use bicycles. On major streets, such as Wilshire or Olympic, at least we have a 50/50 chance of getting green lights at some intersections and not having to completely stop at every block. As a cyclist, I would love to see a bike lane on Olympic Blvd.	3	21	04-24-2019	Olympic Boulevard is recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bikeways are not recommended on Olympic Boulevard on adjacent cities. No change required.
Recommended Programs	Why doesn't Wilshire have a dedicated bus/bike lane during rush hour, which would be in line with the section of Wilshire Blvd. to the east of Beverly Hills?	0	21	04-24-2019	No change required. Consideration of a Wilshire Blvd Bus Lane pilot is a recommendation in this plan. Details of bike/bus lane design would be determined during implementation.
Recommended Infrastructure	Please reconfigure intersection to allow pedestrians and cyclists to cross from Clifton Way in Beverly Hills to Drexel in Los Angeles.	0	21	04-24-2019	An intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection.
Recommended Infrastructure	It's very important to the network to bridge the bike lanes between Burton Way and Crescent Drive. If parking is added back to South Santa Monica Blvd to the southwest, then the road could go down to one vehicle lane in each direction here to allow for a bike lane connection to Crescent or Canon.	0	21	04-24-2019	No change required. Design details for the recommended bikeway on South Santa Monica Blvd would be determined during implementation.
Recommended Infrastructure	San Vicente is a key street in a future regional bike network. Beverly Hills need to figure out how to at least put standard bike lanes on southbound San Vicente.	0	21	04-24-2019	This has been added to the Recommended Bikeways Map.
Recommended Programs	Wilshire between Santa Monica Boulevard and the Los Angeles city line is a key gap in the regional bike network. East of Santa Monica Boulevard, Wilshire has 2 vehicle lanes in each direction. Please extend that configuration to the west, keeping the number of	0	21	04-24-2019	No change required. A Wilshire Blvd Bus Lane pilot is a recommendation in this plan. Details of bike/bus lane design would be determined during implementation.

Category	Comment	Likes	Page	Created	COBH Response
	vehicle lanes consistent. The curb lane can then be used as a 24/7 bus and bike only lane, which will serve no only cyclists but also the Wilshire BRT.				
Recommended Infrastructure	Consider a one way protected lane couplet on Brighton and Dayton.	0	21	04-24-2019	No change required. Brighton is a recommended bikeway in this plan. Design details would be determined during implementation, including whether or not this could include a one-way couplet with Dayton, contra flow lanes, or sharrows.
Recommended Infrastructure	Please work with private property owner to build a publicly accessible sidewalk on the south side of Santa Monica Boulevard between Beverly and Canon.	0	25	04-24-2019	Private property is out of the scope of this plan.
Recommended Infrastructure	Doheny would be a great candidate for a north/south Class IV bike lane, from SM Bl to Whitworth. You don't have very many north/south safe corridors here. IMHO, "bike routes" are worthless in making less confident riders feel safe. Bike Lanes are better, but if you really want to set an example for the world and make this great (and embrace Vision Zero), please focus on Class IV.	0	21	04-26-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided. A bikeway on Doheny Drive is included as a recommendation in this plan.
Recommended Infrastructure	Whittier could be your western north/south bike lane (hopefully Class IV!) and if you protect Sunset (which I think is great, BTW) then you have a great link here between Sunset, SM Bl's bike lane - with great connections to LA's system - as well as further south down Moreno and Spalding to Olympic (I still think Olympic needs a Class IV bike lane)	1	21	04-26-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided. Olympic Boulevard is recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bikeways are not recommended on Olympic Boulevard on adjacent cities.
Recommended Infrastructure	You have a *ton* of space on the old bridle trails (which is beautiful BTW), while the green bike lanes are great and appreciated, could you please allocate space to protect the lanes you've already built. Especially going West -> East, it can get harrowing with cars (and many tourists) not paying attention and trying to make a right into the golden triangle not looking out for cyclists despite the lane.	0	21	04-26-2019	No change required. City Council recently approved and the City installed the current design.
Recommended Infrastructure	It's currently not legal and very difficult to cross from the east side of Civic Center Dr across Beverly Bl to the west side of Civic Center Dr. While I think it's great you've closed this off to cars, please make a crosswalk and a pass through for cyclists to be able to use this very quiet and peaceful street.	1	21	04-26-2019	An intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection.
Recommended Infrastructure	Especially with the diagonal parking spaces on Beverly Dr, this needs to be protected to be effective. You could push out the existing parking spaces on each side of the street and have the bike lane be between the curb and the front of the parked cars.	0	21	04-26-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	You need bike only lanes and protected bike lanes to lure more people out of their cars. The number #1 reason people in BH do not cycle is that they do not feel safe doing so. Beverly Hills is ranked #90 (of 372 cities) in the state of California in terms of bike friendliness. WE CAN DO BETER THAN THAT!	2	14	04-29-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	Olympic Blvd. is the major east-west route into the high school and Century City in the southern portion of our city. We need dedicated, protected bike lanes to move people to these two common destinations. Get rid of the left turn only lanes for cars which are empty 99% of the time, even during rush hour, and use this space to create protected bike lanes on this major east-west corridor. Bike lanes would also create a buffer between the traffic and pedestrians on the sidewalks. Much of the time it feels like walking along a highway.	0	21	04-29-2019	No change required. Olympic Boulevard is recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bikeways are not recommended on Olympic Boulevard on adjacent cities.
Recommended Infrastructure	There is no existing Class II Bike Route on the west (Beverly Hills) side of San Vicente Blvd. between La Cienega and Wilshire Blvds. Please correct this error in the map. A Class II should be installed to match that on the other side of the street.	1	21	04-30-2019	This has been added to the Recommended Bikeways Map.

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Miscellaneous	Whittier Dr. has the advantage of a traffic signal at Wilshire Blvd., which allows for easy access to Santa Monica Blvd. from Sunset Blvd. and Elevado Ave.	0	21	04-30-2019	No change suggested
Miscellaneous	Shouldn't this be Phyllis Street? (city limit with West Hollywood)	0	41	04-30-2019	There is no bikeway proposed on Phillis St.
Recommended Infrastructure	Beverly Hills needs to provide far more bus benches and shelters than is currently the case. They should reference the "smart" shelters currently being installed in West Hollywood (live arrival updates, WiFi, enhanced lighting, etc.).	1	27	04-30-2019	No change required. Smart shelters are included as a recommendation in this plan.
Recommended Programs	Camden and Bedford are two good examples of overly wide streets that encourage speeding. Three wide lanes are not necessary. Two narrower lanes would allow space for creativity. This could be used for angled meter parking, a bike lane or wider sidewalks. This is a perfect spot to try performance pricing parking. This is where the meters allow flexible parking rates, and are set to 85% occupancy. This decreases car congestion since this allows for 1-2 open spaces per block. Now people that want to park short term and close to the businesses will always find a space. Less circling the block looking for a parking space. Increased revenue can be used to enhance the blocks these spaces serve. Now the street will be more pleasant for ALL users: walkers cars and cyclists!!	0	25	05-02-2019	No change required. Bedford is shown in the plan as an example for curbside management, which could include variable parking rates. Design details would be determined during implementation.
Miscellaneous	The present plan deserved a lot of praise. I want to add a suggestion that could make it even better. The plan takes much of its urgency and motivation from the health benefits that accrue when more people feel confident to use our streets actively. The test of this principle occurs when you arrive at your doctor's office and can find no decent bicycle parking. Or when you read the social media output of a local hospital that uses the word "cyclor" to refer to a cyclist. Policies are needed that emphasize the special responsibility of health providers to join the healthy transportation bandwagon in Beverly Hills. (1 of 2)	0	114	04-26-2019	No change required. The City does not have jurisdiction over private healthcare providers.
Recommended Infrastructure	This proposal seems very vague and over broad, and I would suspect not really doable. I stand by my original suggestions, made several years ago during a meeting with the traffic planning staff: The city should implement a well protected bicycle safe route that would take riders to each of the schools, parks and the public buildings. The city needs to bite the bullet and restrict or ban parking on a selected few through streets thus making room for protected bike lanes without unduly restricting auto traffic. I would recommend Rexford and Gregory Way. Most of the destinations are on or very near these streets, and they are not really commercial streets like Crescent or Beverly Drive, so you could really concentrate on bicycle and pedestrian safety without sacrificing that so-crucial auto traffic. These could be streets where pedestrian safety measures are also emphasized; in other words a refuge and safe haven for those of us not in cars. Desperately needed.	0	92	05-07-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Implementation Plan	I am glad to see that 97% of people surveyed are pedestrians who like to walk in Beverly Hills - more than any other modality. And I'm glad that pedestrian improvements are discussed in the plan. But I'm disappointed that pedestrian projects seem to get shunted aside in the "Next Steps" timeline of projects. There are few pedestrian improvement projects in the Tier 1 and Tier 2 lists. Many needed pedestrian improvements are pushed into Tier 3 - and it sounds like those would not actually happen for many years. I encourage you to "put your money where your mouth is," and move pedestrian improvements forward. The 97% of us would benefit from it! Thank you.	1	38	05-08-2019	Pedestrian projects are now clearly outlined in the Action Plan.

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Recommended Infrastructure	I'm glad to see pedestrian improvements called for on Robertson and La Cienega. Making these streets more pedestrian-friendly will also encourage more street life and business on these corridors - which I know has been a goal for Beverly Hills. Right now walking on these streets can feel a bit desolate - but many of these blocks have good bones, and could be lively stretches with the right improvements (and a few new restaurants and cafes).	1	25	05-08-2019	No change suggested
Miscellaneous	I read in the Courier this week that the Traffic and Parking Commission "reluctantly" sent the Complete Streets plan to the City Council. This was because the plan was full of generalities and buzz phrases but short on details and actual recommendations. Why did the Commission forward the plan? If it was so bad, why didn't they return it to the subcontractor for revision? If we have not yet paid their invoice I suggest we do not.	0	3	05-13-2019	No change suggested
Miscellaneous	Can we add more bike share stations? Below are a few suggestions: Robertson/Gregory Wilshire/La Cienega Wilshire/Robertson Wilshire/Roxbury S Santa Monica/Moreno Olympic/Beverly	0	21	05-15-2019	No change required. Bike share to be evaluated along with consideration of shared mobility devices.
Recommended Infrastructure	The sidewalk material should be overhauled citywide -- the city should install DECORATIVE PAVERS / ENHANCED SIDEWALKS (as it's done all over the world, including most U.S. cities). The updated guideline (to require pavers) should be included in your new "Complete Streets" plan. In order to attract walkability and pedestrian-friendly environment, pavers are a Must!	0	10	05-16-2019	No change required. Developing streetscape guidelines and standards for commercial streets is included in the tiered implementation plan.
Recommended Infrastructure	More Protected Bike LANES!	1	1	05-17-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Miscellaneous	The complete streets plan provides the document the city needs to qualify for Metro grants. No network, policy or program is provided. #shelfware	0	90	05-17-2019	No change required. Chapter 7 includes the proposed networks, Chapter 8 includes the proposed policies, and Chapter 9 includes the proposed programs.
Recommended Infrastructure	Nearly every central-area corridor is identified for a 'conceptual enhancement.' Few are recommended.	0	90	05-17-2019	No change required. The corridors identified are those that are recommended for enhancement.
Recommended Infrastructure	Of course we can also reallocate travel lanes for other purposes such as bicycle lanes and protected bicycle lanes. In some cases keeping parking but eliminating a 2nd travel lane -- like south Beverly Drive -- would calm traffic. Note: the term 'road diet' appears nowhere in this draft plan!	0	91	05-17-2019	No change suggested. Roadway reconfiguration is discussed specifically in Appendices Best Practices and Design Guidance as an option for expanding bicycle and pedestrian infrastructure. Roadway reconfiguration is also discussed as a strategy for implementing bikeways in constrained areas.
Recommended Infrastructure	EVERY street in Beverly Hills is wide enough to accommodate both bi-directional travel lanes AND bicycle lanes. It is a question of priorities.	0	91	05-17-2019	No change suggested
Recommended Infrastructure	Prioritizing bicyclists as the roadway users is a VALUE that is noted in both the circulation element of the general plan and the 2009 Sustainable City Plan. The objectives: to reduce emissions; reduce congestion; and promote community health.	0	91	05-17-2019	No change suggested
Recommended Infrastructure	Any street or corridor can be made low-stress, or substantially lower-stress, with the proper infrastructure. This plan seems to prioritize EXISTING relatively low-stress streets for facilities; moreover any designation as Class II OR class III makes no distinction between the suitability of a facility for a specific situation. Any apparent stress today for bicyclists should suggest a class II or IV -- marked lanes or protected lanes -- for the bikeways infrastructure map. Class III is NOT infrastructure.	0	91	05-17-2019	All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.

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Recommended Infrastructure	The 1977 plan did a much better job of suggesting the value of those destinations by making them notes in a citywide bicycle network. How is it that schools don't get special treatment in this plan? Why was the school district not brought into the process as a KEY stakeholder if we want kids to ride to school?	0	91	05-17-2019	Most schools touches at least one recommended bikeway to prioritize student bicycle travel. The schools and district offices were noticed about workshops, and information about the release of the Draft Plan and Draft Plan Feedback Workshop was included in the school newsletters to encourage parent and staff participation. There is now goals/policies that specifically include connections to schools.
Recommended Infrastructure	Both are excellent N/S Class II choices. Beverly in particular will benefit from lanes adjacent to the sidewalk and reverse angled parking. We NEED to lose a travel lane because excessive speed, U-turns, etc. go completely unenforced.	0	94	05-17-2019	No change suggested
Recommended Infrastructure	There is no excuse NOT to stripe class II lanes on Crescent south of SM Blvd as this is the city-owned commercial district. Community destinations (market, hardware, P.O.) and in/out conflicts at three parking garages make it essential for every road user to understand riders are present and have a dedicated space.	1	94	05-17-2019	No change suggested. Crescent is included as a recommendation in this plan.
Recommended Infrastructure	Canon north of Wilshire is NOT appropriate for bicycle lanes. Beverly is the primary N/S corridor. Crescent is the neighborhood retail corridor. Canon is a road to nowhere on either end. Plus the Canon/Wilshire intersection, should it reopen, is among the most high-stress for riders and pedestrians given the oblique angle of the intersection and the traffic light spacing.	1	94	05-17-2019	Canon is being considered for bicycle lanes because it may provide access to the Metro station via the North Portal, currently being studied. The Canon/Wilshire intersection is also identified as in need of an intersection crossing treatment. No change required.
Recommended Infrastructure	Appropriate for Class IV and nothing else given the city-acknowledged hazards of the corridor (not least excessive speed) which has resulted in some intersection redesigns. If designated for Class IV we should also see some innovate intersection treatments near Will Rogers park: bike signals & bike boxes at the very least.	0	94	05-17-2019	No change required. These are recommendations in the plan.
Recommended Infrastructure	Burton Way lanes was always low-hanging fruit, but the execution (and faded striping) leaves much to be desired. Yes improve it, but don't count it as a real step forward. It is among the lowest-hanging fruit still.	0	94	05-17-2019	No change required. This is a recommendation in the plan.
Recommended Infrastructure	Reconfigure it. Residents along Burton will benefit from having traffic at speed farther from the curb.	0	95	05-17-2019	No change required. This is a recommendation in the plan.
Recommended Infrastructure	The city's rack-on-request program was a cynical gesture that planted perhaps 30-35 racks. And was structured only so business owners could request -- and veto -- a rack. A worst-practice case study. By all means: more racks and bike corrals, such as at the market on Crescent where the eastbound street crosses. On the NW corner is perfect. Low-hanging fruit.	0	95	05-17-2019	No change required. Recommendations for more bike parking is included in the plan.
Recommended Infrastructure	We have seen active traffic enforcement PLUMMET in a decade. The best cure for ped safety on high-speed corridors is lower speed though engineered treatments or enforcement. Next, high-viz crosswalks and signals that give peds lead time at EVERY intersection in our designated ped zone.	1	96	05-17-2019	No change required. These are recommendations in the plan.
Recommended Infrastructure	Already in our designated pedestrian zone and SHAMEFULLY ignored by our transportation planners and engineers. Just look at those faded, old crosswalks. We have a preponderance of older walkers, and this is among the most crowded few blocks in the city. SHAME.	0	96	05-17-2019	No change suggested.
Recommended Infrastructure	Another key pedestrian corridor that has been shamefully ignored. Consequently, nobody likes to walk there. Shop owners don't want to locate there (no foot traffic). Yet we scratch our heads and form small business task forces to figure out the problem. YES on ped corridor designation.	0	96	05-17-2019	No change suggested.

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Recommended Infrastructure	It is a testament to our city's ambivalence to the complete streets process that we've haggled over south SM boulevard realignment instead of waiting a year to see what the plan says. Another key ped corridor YES.	0	96	05-17-2019	No change required. This is a recommendation in the plan.
Recommended Infrastructure	YES. If our intersections look like they do today after three years post CS implementation, we have failed. We need curb realignments at Wilshire/Crescent and also South SM/Crescent. Square off the latter.	0	98	05-17-2019	No change required. This is a recommendation in the plan.
Recommended Infrastructure	See Pottsville, PA. Looks just like South Beverly before/after implementation. Drivers will get the hang of it: it's like parallel parking for dummies.	0	98	05-17-2019	No change required. This is a recommendation in the plan.
Recommended Infrastructure	Every intersection on South Bev or any ped district should be considered seriously for scrambles. Today, it is a free-for-all at the pedestrians' expense. Another problem today: Ped signals aren't green sometimes unless the button is pushed. Ped signals in our city range from 5 seconds to 20+ seconds for the SAME crossing distance. SHAME.	0	98	05-17-2019	No change required. Pedestrian scrambles and signal upgrades are included as recommendations in the plan.
Miscellaneous	Who cares. Make them safe and visible.	0	98	05-17-2019	No change suggested
Recommended Infrastructure	Yes. The blue-ribbon committee was notable in that probably half those folks said they didn't want bus shelters at all because they cater to the homeless. We are better people than that, right? Or at least we want to treat our service people better, right?	0	99	05-17-2019	No change suggested
Recommended Infrastructure	Our alleys proximate to the future station at Reeves can be repurposed -- and should be. What a waste of public space they are today. This is low-hanging fruit. If they are not used for bike-ped station access and perhaps rideshare we will have failed.	0	102	05-17-2019	No change required. Options for drop-off/pick-up and station access will be evaluated as part of the Metro First/Last Mile Strategic Plan.
Recommended Infrastructure	"I have consistently used every modality available to me for the past 15 years. While I'm glad to see this document address improvements across all modalities, nothing prevents me from walking, driving or taking a bus across our city today. However, even as a very competent cyclist, I can't comfortably bike through it. It's one of the most dangerous parts of LA I ever bike through. Other than Santa Monica Blvd--something we had to spend over three years fighting for the obvious--the lanes we do have are bridges to nowhere. It should not be lost in reviewing this process and this document that we have consistently punted for four decades the need to develop a holistic bike network. Punting any further is total failure and an embarrassment to our community. " - Kory Klem	0	90	05-17-2019	No change suggested
Recommended Infrastructure	Look at Japan for excellent examples of automated bike parking. The big promise is in automated car parking, but bike parking is a manageable demonstration project to start.	0	102	05-17-2019	No change suggested
Miscellaneous	Shows participants' ambivalence about the automobile today. We can make a policy change so that we're not planning foremost for traffic throughput. That should have never been a guiding objective. Let those folks take air taxis.	0	103	05-17-2019	No change required. This plan recommends upgrading all modes to best practice mobility standards.
Recommended Infrastructure	The city has some of the widest blocks in LA. DTLA just added a 2-way bike lane on Main. DTLA is rather built out. It will NEVER GET EASIER TO ADD THESE CORRIDORS THAT ARE 40 YEARS OVERDUE. We love the Mayberry comparison, but Mayberry is only really open to cars and peds (ish).	0	91	05-17-2019	No change suggested
Miscellaneous	This feels always in the future. "The city will..." "Implementation is in progress..." We've seen a decade of rising injuries and declining enforcement without EVER analyzing crashes and where/why they happen. Flying blind.	0	104	05-17-2019	No change suggested
Miscellaneous	It is another sign of our city's ambivalence about the CS process that southwest traffic calming preceded in advance of the plan. Ridiculous. And the proposed 'pilot' will tell us nothing about what should be in that toolbox. Speaking of which, didn't we have a calming toolbox 20 years ago?	0	103	05-17-2019	No change suggested

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Recommended Infrastructure	The city should prioritize MAKING our high-stress corridors lower-stress. Focusing on low-stress corridors is the low-hanging fruit. Every major street should be low-stress. Now, what tools and improvements do we need to get there?	1	108	05-17-2019	No change required. "Prioritize Implementation of Low Stress Bikeways" is a recommended policy in the plan.
Recommended Infrastructure	The reason you're able to recommend nearly every street is that they're all obviously wide enough for even Class IV if folks led to prioritized other modalities. We don't need 52 miles of lanes. We need less than 10, including: 1. A Southerly East-West route. Olympic will never happen and it's a death trap with a sizable hill to the west. Gregory is ideal. 2. When you look at the accident data and marry that with the construction mitigation along with first/last mile, Charleville is redundant as it's so close to Wilshire, the perfect mid-City route. 3. We need to Doheny (Pico-to-Santa Monica). It's the perfect connector. 4. Split the triangle North-South. This could even be temporary until something larger (Beverly) was executed in a subsequent phase.	0	92	05-17-2019	The City recommends installing more than 10 miles of bikeways to accommodate the varying needs of bicyclists traveling within and through Beverly Hills, and to create a geographically accessible bikeway network. No change required, these recommendations for specific bikeways are in the plan.
Recommended Policies	We should discontinue the 4-day TDM workweek for employees that have it, and instead incentivize non-motor travel to work using that extra off-day. Only employees that do not commute by car should be eligible.	0	108	05-17-2019	No change required. Encouraging/incentivizing City employee commuting by non-motorized transportation is a recommendation in this plan.
Recommended Policies	NYC provides a model: every new commercial building must provide bike parking and allow bikes to be brought in through the lobby, if I recall.	0	109	05-17-2019	No change required. Exploring a bike parking ordinance is a recommendation in this plan.
Recommended Programs	Perhaps the most important change in how we police streets for safety. Today there is depressingly low rates of enforcement. While red-light cameras work overtime, police and community are together in coffee and bagel shops. One look at the trends should ring the fire alarm. If we can't police the worst excesses -- speed, U-turns, pedestrian intimidation etc -- at least we should know exactly where the harm happens in near real-time. Why has it taken this long? Any why has this suggested NEVER come from BHPD?	0	114	05-17-2019	No change suggested
Miscellaneous	My question is, if crashes are down that much, why are crash injuries so many more than before?	0	114	05-17-2019	No change suggested
Recommended Infrastructure	Wilshire / La Cienega is SCREAMING for a scramble. That intersection is enormous, one I've walked a lot. Bring more visibility to it and allow people to cross at an angle. (Think Shibuya in Tokyo.)	0	102	05-17-2019	No change required. Pedestrian scramble locations will be evaluated during implementation, and in this location as part of the Wilshire - La Cienega Streetscape Plan.
Recommended Programs	The ridiculous 'civil city' program is exhibit A in why these schemes don't work well in BH. Theater won't get us to safer road-user behavior.	0	115	05-17-2019	No change suggested
Miscellaneous	This is the biggest LOL in the whole plan. City staff have historically shown zero interest in what the community has to say outside of some mandated process (CS being one example). The City Hall attitude is often 'shelter in place' rather than 'reach out and touch someone' for better ideas. It's not in the city hall DNA.	0	115	05-17-2019	No change suggested
Miscellaneous	Even if we hold our ground with lower density, we know what's happening around us. We're flanked by it. More industry (tech) has moved west, so the through traffic will only increase. We're two decades behind other Westside COG cities, yet we sit in the middle of all them and should be doing transportation and multimodal better than all of them.	0	103	05-17-2019	No change suggested
Recommended Programs	City of West Hollywood on Monday is finalizing a \$500k grant from metro for a CicLaVia and pocketing \$100,000 of that for local expenses. Because they 1) saw the value of a CS plan early; and 2) because they care about multimodal. Discuss.	0	117	05-17-2019	No change required. Applying for an open streets event grant is a recommendation in this plan.
Recommended Programs	Call it a pilot if you want, but just implement it already. It is totally crazy the ordinary every conflict between motorists that erupts on South Beverly, let along the patent danger to those on a bike or a scooter.	0	118	05-17-2019	No change suggested

Category	Comment	Likes	Page	Created	COBH Response
Recommended Programs	We had a small business task force some years ago that simply would not consider the concept. We'll see if the current SBTF cares any more about it. The farthest we got in BH was a lot of money shoveled into a hold for the Chamber's shop local program. It could have been better spent on BFBD.	0	118	05-17-2019	No change suggested
Recommended Programs	Our Rec & Parks commissioners (except for Bilak) showed ZERO interest in bike routes to parks; zero interest to allow bikes in parks; and zero interest in complete streets as a concept or process.	0	119	05-17-2019	No change suggested
Recommended Policies	We've GOT to find some parity with the rest of the world here. I was completely blindsided by last summer's "emergency ordinance", despite bringing these scooters up to staff, liaison meeting and Mayor's tech group. Again, I probably have covered more mile on more modalities than anyone in the community over the past 15 years. We need to pull our head out of the sand on this. It's the greatest solution I've found to date.	0	110	05-17-2019	No change suggested
Recommended Policies	Yes. We should discourage city employees from commuting from Valencia and Westlake Village by reducing any transportation related benefit and give that to those who commute here actively, or by transit, or better yet choose to live here (where our interests can really align).	0	119	05-17-2019	No change required. The City does not have jurisdiction over where employees live.
Recommended Programs	YES. Beverly Hills may not have actively opposed it, but only because we didn't have to. The NIMBYs in Condo Canyon did it for us. Implement it here phase I if possible while construction is underway on Metro.	0	119	05-17-2019	No change suggested
Recommended Programs	Just go here now and you're all set: http://www.beverlyhills.org/opendata/ TPC (which has got to be renamed "Transportation") should have this (or a more developed version of this) up with BHPD each meeting to discuss each month as well as trends.	0	114	05-17-2019	No response required. Expanding data governance is a recommendation in this plan.
Recommended Programs	Not sure what this means, but I'd like to feel good riding or scootering into town AND save myself \$15 for not driving. YES on pricing.	0	119	05-17-2019	No change suggested
Implementation Plan	Seems like the top three priorities for implementation come not from the community, nor from a values-driven plan, but from the predispositions of five elected representatives. And it seems like the two key implementation choices (notably excluding bicycle infrastructure) were made by just two councilmembers in a TPC liaison meeting.	0	120	05-17-2019	No change suggested
Recommended Infrastructure	Schools get no priority in this plan, as is evidenced by the lack of a recommended bicycle network that would connect schools (and parks, etc.). There is no discussion of schools or low-stress routes to reach them. The district was not involved as a stakeholder. One boardmember saw a copy of the plan a day before the last TPC meeting where input was taken.	0	120	05-17-2019	Most schools and parks touch at least one recommended bikeway to prioritize student bicycle travel. The schools and district offices were noticed about workshops, and information about the release of the Draft Plan and Draft Plan Feedback Workshop was included in the school newsletters to encourage parent and staff participation. There are now goals/policies that include connections to schools.
Recommended Infrastructure	While it is obvious this document was meant to simply check a box for future funding purposes, it also notably lacked any "big ideas". Those familiar with the wonderful aesthetics of our city who also have seen what true multimodal cities look like because of the heavy use of bikes and scooters know that a potential problem lurks, particularly around the metro stops. Why not look into a best-of-breed subterranean bike locker/filing cabinet like they have in Japan and Europe? They technology continues to advance nicely, and it will prevent an eyesore around the stations and in the city center.	0	116	05-17-2019	Providing a Secure Bike Parking Area at the Metro stations is a recommendation in this plan. Designs and vendors would be evaluated during implementation. There is now a policy recommending automoted bike parking.
Implementation Plan	This is the most disappointing aspect of the document: an implementation plan that does not commit to timely implementation. Not only is there no year 1, year two, etc... we see that so-called Tier 1 can stretch to FIVE years. Really? We are 10 years behind our muni neighbors. At this rate, after five years of tier 1, and with these identified priorities, we'll be 20 years behind our neighbors.	0	121	05-17-2019	The Action Plan now prioritizes projects in the first six years after plan adoption, but the lifetime of the plan is longer.

Category	Comment	Likes	Page	Created	COBH Response
Implementation Plan	If pressing safety is an organizing principle -- and it should be -- we would see a real commitment to real infrastructure in this plan. AND WE DON'T.	0	121	05-17-2019	No change required. The plan includes an implementation plan which prioritizes infrastructure installation.
Recommended Infrastructure	Sharrows is not infrastructure. Moreno should be prioritized for a Class II lane because it is the direct connection to both the HS and Roxbury park. It is wide with parking on one side already. It is a relatively dense area. It connects to SM Blvd lanes. Hello!	0	121	05-17-2019	Moreno is now recommended for bike lanes. The exact design will be determined during implementation with neighborhood-level outreach and a discussion of options/tradeoffs.
Recommended Infrastructure	Why doesn't the plan recommend either Gregory or Charleville? And why the hedging on class II OR class III? These generalities do not a bike network make, and they won't get us to streets that FEEL safe for those who could choose to ride but won't.	0	121	05-17-2019	The plan recommends both Gregory and Charleville because a facility could be split between the two to minimize impacts (parking loss) to the corridors.
Recommended Infrastructure	Again, class II OR class III, and the implementation schedule is not choosing a preferred route. In fact, doesn't the plan variously label Beverly as both class II and Class II OR class III? Looks like hedging on the heavy-lift route.	0	121	05-17-2019	Beverly is proposed as Class II and Class IV.
Implementation Plan	Tier 3. Let's not get distracted by theater. We need infrastructure in Tier 1.	0	121	05-17-2019	The Action Plan no longer uses tiers.
Miscellaneous	I enjoyed the walk audit that was part of this process, but we sadly we split up as a group and it only covered two corridors. But yet it *WAS* valuable. An amazing thing happens when you become intimately involved with using something: You are better informed to solve the user problem that surrounds it. Even if one bikes on Sunday mornings, that doesn't prepare that person to understand where the real infrastructure problems occur. It's purely academic. Pair that with politic opposition and you have our Mayberry-like community that prides itself on health, safety and the environment, but is two decades behind other Westside cities when it comes to biking. I love the ban on tobacco products, but what about the thing that will statistically kill or injure us more (autos)? If we don't build out a protected network in Phase I (2020), this process is a shameful, abject failure that will reverberate for a generation.	0	120	05-17-2019	No change requested
Implementation Plan	make this not only tier one but YEAR ONE. Implementation should distinguish between class II and class III priorities so we have some idea what a network could look like.	0	122	05-17-2019	The bike map has been changed to distinguish between Class II and Class III now.
Recommended Programs	Bad news: there are other role model cities ahead of us. Good news: we can still create better policies. No employee should receive any employee benefit that encourages single-occupant car travel to work. No car allowance, no mileage, no use of personal car for city business.	0	122	05-17-2019	No change required. Updating commuter benefits is a recommendation in this plan.
Recommended Programs	Every week should be rideshare week, like every month should be bike month in Beverly Hills. Transportation efficiency, congestion reduction, and emissions reduction needs no holiday.	0	122	05-17-2019	No change required. Rideshare Week and Bike Month are regional and national programs.
Recommended Programs	West Hollywood got \$500k from Metro for open streets. If we don't have a grant app waiting to go out the day Metro blesses our plan, shame on us. Maybe that grant app is the one thing we can do in-house.	0	122	05-17-2019	No change suggested
Recommended Infrastructure	While we're at it, make Whittier/Sunset a pro-bike intersection with bike signals. Whittier is 'proposed' for class I or II. The N/S route touches a park and a school and links hillside neighborhoods with the SM Blvd lanes westbound. It should be class II right out of the gate: YEAR ONE.	0	122	05-17-2019	An intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection. The City proposes prioritizing installation of bikeways to Metro stations, which also link neighborhoods, schools, parks, and existing bikeways.
Recommended Infrastructure	Let's commit to at least two, maybe three, crosstown routes. I suggest Elevado: best connection to North Doheny/Sunset and through the Hilton property (mandate an easement in the new project's plan review) to the SM Blvd WB lanes. Commit to YEAR ONE class II.	0	123	05-17-2019	The Action Plan now includes specific projects to be completed in the first 18 months after plan adoption, with future priority streets to be determined with community input.

Category	Comment	Likes	Page	Created	COBH Response
Implementation Plan	Moreno is a no-brainer for class II YEAR ONE. Connects the HS, Roxbury park, and SM Blvd lanes.	0	123	05-17-2019	The Action Plan now includes specific projects to be completed in the first 18 months after plan adoption, with future priority streets to be determined with community input.
Implementation Plan	The single most important proposed bikeway in the plan, but hedged as class II or III in some places and class II in another. Maybe a lift for year one but it can't wait 5 years out for tier 2 or more for tier 3.	0	123	05-17-2019	The Action Plan now includes specific projects to be completed in the first 18 months after plan adoption, with future priority streets to be determined with community input.
Implementation Plan	The only reasons not to improve Robertson for peds in tier 1 is 1) LA drags its feet on the LA side; or 2) we are waiting on a streetscape plan in conjunction with the SE task force.	0	123	05-17-2019	No change suggested
Recommended Infrastructure	Not clear how this needs ped improvements. Better crosswalks perhaps and signage.	0	123	05-17-2019	No change suggested
Implementation Plan	Why are these tier 3? Some time indeterminate? Isn't this what the CS plan is for?	0	123	05-17-2019	No change suggested
Miscellaneous	Rec & Parks completely turned their back on complete streets and routes to parks. Except for commissioner Bilak, commissioners turned their backs on bikes in parks and de-listed as a priority anything bike-related, including the subcommittee. The commissioners have apparently taken no interest in complete streets. This item should be implemented not by Rec and Parks but by TPC.	0	123	05-17-2019	Commissions do not implement projects. The plan now identifies this commission as a potential partner.
Recommended Programs	Rather than let our small business task force kick this concept to the curb, and rather than shovel more money to the chamber, which doesn't much care about non-member small retailers, hand it over to LACBC or contract with another nonprofit to stand up this program.	0	123	05-17-2019	The plan now identifies potential partners.
Recommended Programs	These seem to be different concepts. If we are talking about private entities providing public plazas in exchange for some zoning consideration, I'd ask how it's worked in the past -- and how many of those 'plazas' are actually perceived by the public to be 'public.' An inventory would be a good start before we go down the plaza road.	0	123	05-17-2019	No change suggested
Implementation Plan	Perhaps Bedford is an appropriate pilot program area, but not ten years out in Tier 3. TODAY. The advantage of Bedford is that it is wide and one-way, making a lane-loss less significant. Doctors will love a bump-up in street parking capacity.	0	123	05-17-2019	The Action Plan no longer uses tiers.
Miscellaneous	Santa Monica bakes into their plans values like safety and livability and those plans are NOT shelfware. Look at the commitment that city has made to ped and bike infrastructure. We're 15 years behind SM. We know our officials have seen it: our CDD director lives there and presumably enjoys the ped- and bike-friendly innovations.	0	124	05-17-2019	No change required. These are values identified in the plan.
Miscellaneous	Safety, safety, safety. In the BH CS plan process, safety was not even identified as a primary value. "We'll let the community decide the values." WRONG. Safety is a professional responsibility of those who design our streets. It should have been THE primary value expressed in the first sentence of the CS RFP.	0	125	05-17-2019	No change required. Enhancing safety is listed as a value in the plan.
Miscellaneous	The Bicycle Task Force -- what an innovation. Imagine if we had something like that in BH where those who actually experience the city on two feet and two (or 4) wheels actually have a say in the infrastructure, policies and programs. Here we are 10 years behind WeHo.	0	125	05-17-2019	No change suggested
Miscellaneous	Another opportunity to learn from our northeast neighbor: make enforcement a priority. I haven't checked their citation stats but officials have certainly prioritized ped safety.	0	125	05-17-2019	No change suggested
Recommended Infrastructure	BH residents may crow about half-baked traffic calming measures as proposed for the SW area, but there is no need to fear the unknown: they can take a bike ride to WeHo and see REAL traffic diverters in action. And see how quiet those blocks are. Here we are 20 or more years behind WeHo.	0	125	05-17-2019	No change suggested

Category	Comment	Likes	Page	Created	COBH Response
Recommended Infrastructure	This is one corridor that cries out for class II lanes, not a "class II or class III" cop out. I want to ride EB on our SM BL lanes and peel off onto a high-viz green lane on Beverly Bl. Work it out with WeHo because this route is a major E/W that connects to the region's largest employer, Cedars and LA beyond.	0	126	05-17-2019	Beverly Blvd as a Class II and IV is now a recommendation in the plan.
Recommended Infrastructure	There should be no opportunity left behind when it comes to connecting with a neighbor city's infrastructure. How long ago has LA striped a lane to Roxbury Park on Roxbury? And we haven't met that lane with one of our own? All of these are important and thankfully NSM BL is done already.	0	127	05-17-2019	No change suggested
Recommended Programs	A better pilot is Roxbury park: lower volumes, less-harried drivers.	0	123	05-17-2019	No change required. The pilot location would be determined during plan implementation.
Miscellaneous	Safety as a value should have been prioritized by officials at the RFP stage. We don't need the community to identify it as a guiding value: it is a transportation official's professional responsibility.	0	8	05-17-2019	No change required. Enhancing safety is listed as a value in the plan.
Recommended Infrastructure	The 1977 plan (cynically re-adopted in 2010) actually did a much better job of opening the imagination to a citywide bike network than does this draft plan. You can see it at a glance on the old plan map; in this document's spaghetti of "proposed bikeways," where nearly every street is a candidate, one can't even make out what it could look like.	0	12	05-17-2019	No change required. The City recommends installing a geographically broad network of bikeways to accommodate the varying needs of bicyclists traveling within and through Beverly Hills. The plan recommends either Class II or III to acknowledge that the exact design will require a discussion of tradeoffs with the community because most streets in Beverly Hills will require repurposing of either parking or vehicle travel lanes.
Recommended Infrastructure	Shift the northside route from Carmelita to Elevado and there you have an excellent citywide bicycle network and all we are asking for. Call it DONE. Make it tier one.	0	14	05-17-2019	Carmelita has been removed.
Recommended Infrastructure	We need a crosstown route on Charleville or Gregory that is class II and NOT class III. A facility that will encourage those who would bike but choose not to bike: inexperienced riders; women primarily; and children with approval of parents. Class III will not get us there.	0	15	05-17-2019	Charleville and Gregory are now both listed as Class IV.
Recommended Infrastructure	Class III on South Beverly is a straight-up cop-out. This road is a danger zone: excessive speeding; motorist disputes; illegal maneuvers; disregard of cyclists and pedestrians. And it is our 'Main Street.'	0	15	05-17-2019	No change required. A class III is not recommended on South Beverly.
Miscellaneous	SHELFWARE. Never heard a city official ever reference it.	0	15	05-17-2019	No change suggested
Miscellaneous	Proof that irony is not dead!	0	16	05-17-2019	No change suggested
Miscellaneous	Designation in name only. In all other respects this corridor is kicked to the curb: faded old-style crosswalks; no enforcement; hazardous to use a crosswalk.	0	16	05-17-2019	No change suggested
Recommended Policies	Bicycle racks is not the same as secure bicycle parking to an employee, say, who parks all day. 'Secure' means secure. This BHMC section should specify secure, indoor bicycle parking period. And changing rooms. Above 200,000 square feet showers too.	0	16	05-17-2019	No change required. Exploring a bike parking ordinance is a recommendation in this plan.

DRAFT PLAN SUB-COMMENTS

Category	Comment	Created	COBH Response
Recommended Infrastructure	By replacing many of the 4-way stops with roundabouts, this could become a beautiful and effective neighborhood greenway.	04-24-2019	No change required. Traffic circles are included as a recommendation in this plan.
Miscellaneous	I would like to see all of the intersections on Olympic without traffic signals be made RIGHT TURN ONLY, particularly during the hours during when on-street parking is prohibited. There are signals every few blocks, so this would not be inconvenient to residents after they become familiar with the restriction. (I think very few residents are stupid enough to try to cross or turn left on busy Olympic.) This will be safer for drivers and passengers, students driving to BHHS, bike riders, bus passengers, users of the 2 big parks on Olympic, and will serve to generally even the traffic flow.	04-24-2019	No change required. The City's traffic engineering team can investigate this issue.
Miscellaneous	The name "indicator" and the illuminated light are a bit misleading as to the primary purpose of these devices. If I understand correctly, they are more part of a more accurate sensor system that will ensure traffic signals take into account the presence of a bicycle at an intersection.	04-24-2019	No change suggested
Recommended Infrastructure	I agree, although there is also a center median along Burton Way that could also be used as a bike lane.	04-16-2019	No change required. Due to issues with accessing a center-running bike path, that is not included as a recommendation in this plan.
Miscellaneous	Not sure if this person is referencing the Rexford/Clifton and Crescent/Clifton intersection but both are extremely confusing. If light-up crossing indicators should be utilized anywhere it should be here.	04-15-2019	No change required. The City is in the process of evaluating options to improve the Rexford/Clifton intersection for pedestrians, including striping and ADA upgrades. A traffic signal will be installed at the Clifton/Crescent intersection.
Recommended Infrastructure	This would reduce the amount of overall space on streets significantly which we can't afford. There's already too much traffic. If we'd consider this why don't we just have biker on sidewalks.	04-15-2019	No change required. During the outreach process, the community and Traffic and Parking Commission did not recommend permitting bike riding on the sidewalk.
Recommended Infrastructure	Many streets south of Wilshire (especially N/S direction) are too narrow to accommodate the proposed bike-lanes, with two-way traffic, and parking. On those streets (light blue broken line) bikers will be at a high risk of being hit. Bikers won't feel safe, and drivers will be more uptight. In order to protect the bikers and help smooth vehicle movements and retain existing parking, these streets should be turned into One-Way streets. Example: downtown Los Angeles. While it would require "driving around the block" it's worth it for added safety and a calmer driving experience. Please consider.	04-13-2019	No change required. Design details would be determined during implementation.
Recommended Infrastructure	To guarantee safety of bicycles at the end of the trail (meaning when BH ends and LA or West Hollywood begins), I recommend bicycle only signals to allow them to cross into the bike lanes without the worry of being hit by vehicles.	04-11-2019	No change required. Design details would be determined during implementation.
Miscellaneous	The entrance to the Gale Parking Lot should be on Wilshire to mitigate traffic to the residents.	04-11-2019	North Gale at Wilshire is closed daily to minimize impacts to residents as a result of station construction. The study for the proposed mobility hub on this property will consider circulation impacts. No change required.
Recommended Infrastructure	I would like to suggest that this idea be utilized for other medians such as the one on Burton Way.	04-11-2019	No change required. Design details would be determined during implementation.
Recommended Infrastructure	I would also like to add that Charlivelle and Gregory Way are heavily travelled streets that I believe are too narrow for bikes. I believe it would be better to have "Bike Route" arrows pointing bikes towards Wilshire or Olympic which should have Bike Routes.	04-11-2019	No change required. Design details would be determined during implementation.
Recommended Infrastructure	We need many more bike racks around town. Cyclists need a place to lock their bikes once they arrive at their destination. Since this is Beverly Hills, bike racks ought to be more than just functional, they should be artistic and fun. The car parking lots around the city also could have areas for bike parking. As more people arrive using car ride services like Uber and Lyft, the demand for parking spaces for cars ought to diminish.	05-01-2019	No change required. Additional bike parking is recommended in this plan. Bike parking can be requested through the City's request a rack program.

Category	Comment	Created	COBH Response
Recommended Programs	The 720 Rapid Bus on Wilshire is the most utilized bus route in the So Cal Metro system-more than 30,000 riders per day. That there is not a bus-only lane during rush hour (7-9 AM, 4-7 PM) through Beverly Hills is a real deterrent to a faster bus commute. A full bus keeps 40-50 cars off the road and these transit users should be rewarded with a ride that is as fast as possible. They are not adding to congestion nor are they contributing to global warming. Speedy and reliable mass transit is the best way to encourage people to get out of their cars.	05-01-2019	No change suggested
Recommended Infrastructure	Class III bike lanes are not really bike lanes. They will accommodate existing riders but will not encourage new cyclists. If you want to encourage new riders, they need to feel safe in protected lanes, or at a minimum, wide bike only lanes. If you are serious about getting people out of their cars, you need to make cycling safe and fun. That means you may need to get rid of a lane for cars -- gasp!	05-01-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	Just wanted to add - a protected lane on Beverly Dr. would be a great first/last mile option for purple line riders.	04-26-2019	This has been added as a recommendation in the plan
Recommended Infrastructure	To second Gabe's comment, flipping the paint is the easiest thing you can do to protect cyclists even more without taking away from cars. One side is the curb, and the other side is the passenger side of the parked car. It lowers your risk of getting door'd as well, as it's more common for a driver's side door to open than a passenger's side door.	04-26-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	Signs that tell cyclists they are detected are really useful; otherwise, the cyclist usually has to dismount, cross over, and push the beg button.	04-26-2019	No change required. This is included as a recommendation in the plan.
Recommended Infrastructure	When I cycle west (I live near Melrose and Santa Monica) I always get up to where the bike lane starts on SM Bl in West Hollywood, and then take that through Beverly Hills. I also often take the bike lane on Wilshire that begins just after the LA Country Club. Getting from where SM and Wilshire meet in BH to the bike lane on the other side of the LACC is difficult. I often go on the south sidewalk near the Waldorf Astoria and Hilton, and then past the gas station and country club, then eventually cross back onto Wilshire to get on the bike lane. Please put a protected lane from the SM/Wilshire intersection to the BH border on Wilshire, and perhaps work with CD5 and LA to extend the configuration just a few short blocks to the existing bike lane on Wilshire. This is a huge gap between the two cities.	04-26-2019	Wilshire Boulevard is recommended to be prioritized for the transit/vehicle network. Consideration of a bus lane pilot is recommended. This could include a bike/bus lane. Details would be determined during implementation. No change required.
Recommended Infrastructure	I used to live on Drexel and would bike frequently with my wife and our kids into Beverly Hills. What we usually did - and it sucked - was go slightly to the south at San Vicente and when the coast was clear, bike to the existing left turn/u turn lane, and use that to get onto Clifton Way. It was harrowing. We need a safe crosswalk through the median, following the desire lines of what people (cyclists and pedestrians) are already doing, albeit pretty unsafely.	04-26-2019	An intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection.
Recommended Infrastructure	You have so much room on Olympic Bl, and it's far less dense than Wilshire Bl. A protected East/West lane (perhaps a two way protected lane on only one side of the street) would go a long way - SM Bl covers a northern East/West bike lane (although I also strongly believe there is room to protect this as well without negatively impacting traffic), and Olympic would be the perfect southern East/West bike option.	04-26-2019	Olympic Boulevard is recommended to be prioritized for the vehicle/transit network due to traffic volumes, speeds, truck traffic, and geometric design. Parallel streets are recommended to be prioritized for bicycle travel. Bikeways are not recommended on Olympic Boulevard on adjacent cities. No change required.
Recommended Infrastructure	I agree, we need a crosswalk where Gregory Way ends - while there is one just north of it, it's incongruent, and often I find myself fighting North and Southbound traffic to cross at Gregory Way and Robertson when going West to East, versus taking the time to ride on the sidewalk and cross at the existing crosswalk.	04-26-2019	An intersection crossing treatment has been added to the Recommended Bikeways Map at this intersection.

Category	Comment	Created	COBH Response
Recommended Infrastructure	I've biked this many times and I agree with Scott's comment that going from Burton Way to Crescent (where, of course, one could go north to your existing bike lane and/or the SM BI bike lane) is a harrowing experience. If you're already planning on protecting Burton Way, please end that protection at Crescent and protect Crescent from Little SM to Big SM, where then the cyclist can transition to either go North or East/West in a safe way.	04-26-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	I strongly believe that protected bike lanes (Class IV) are what's needed - a couple of good east/west corridors, and a couple of good north/south corridors. Beverly Hills has the luxury of a good amount of space on most roads. Additionally, you can set an example around the world for the best multi modal infrastructure. Sharrows and paint simply don't cut it.	04-26-2019	More Class IV streets have been added to the plan.
Miscellaneous	Under the heading "Bicycle Friendly Medical Providers" programs & planning guidelines should be outlined which may · set a higher standard of bike parking at medical offices & hospitals · set reporting requirements for staff & visitor trips arriving at medical providers using active modes and to offer annual rewards to offices which have the highest percentage of non-car trips · assist medical offices in developing appointment reminders which include transit connections and active modes · Encourage hospitals to provide IRS required community benefits in the area of healthy transportation by offering safe cycling education · Provide design assistance or conduct artistic design competition for a custom bike rack design which emphasizes, in words and design, the bicycle as a health-bringer "The BH Chief Medical Officer asserts that cycling is good for your health" · Working with local hospitals and health providers to develop healthy transportation plans around their premises (2 of 2)	04-26-2019	No change required. The City does not have jurisdiction over private healthcare providers. Exploring a bike parking ordinance is a recommendation in this plan.
Recommended Infrastructure	We need many more bike racks around town. Cyclists need a place to lock their bikes once they arrive at their destination. Since this is Beverly Hills, bike racks ought to be more than just functional, they should be artistic and fun. The car parking lots around the city also could have areas for bike parking. As more people arrive using car ride services like Uber and Lyft, the demand for parking spaces for cars ought to diminish.	05-01-2019	No change required. Adding bike parking is a recommendation in this plan. Bike racks can also be requested through the City's request a rack program.
Recommended Programs	The 720 Rapid Bus on Wilshire is the most utilized bus route in the So Cal Metro system-more than 30,000 riders per day. That there is not a bus-only lane during rush hour (7-9 AM, 4-7 PM) through Beverly Hills is a real deterrent to a faster bus commute. A full bus keeps 40-50 cars off the road and these transit users should be rewarded with a ride that is as fast as possible. They are not adding to congestion nor are they contributing to global warming. Speedy and reliable mass transit is the best way to encourage people to get out of their cars.	05-01-2019	No change suggested
Recommended Infrastructure	Class III bike lanes are not really bike lanes. They will accommodate existing riders but will not encourage new cyclists. If you want to encourage new riders, they need to feel safe in protected lanes, or at a minimum, wide bike only lanes. If you are serious about getting people out of their cars, you need to make cycling safe and fun. That means you may need to get rid of a lane for cars -- gasp!	05-01-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided.
Recommended Infrastructure	West Hollywood does a good job with this, especially along Santa Monica Boulevard. With their new crossings, it feels much safer as a pedestrian to cross Santa Monica Boulevard. I hope that Beverly Hills will do more of this.	05-08-2019	No change suggested
Recommended Infrastructure	Our public schools are one of our community's greatest assets. We ought to encourage our students to ride bikes to school as a healthy, pro-environment, and fun option. Charleville could be an excellent street to have protected bike lanes. Located between Olympic and Wilshire, it would connect the high school, BV, and Horace Mann. This would decrease the car trips going in and out of our schools. Our city is safe, our weather is great, and the south part of Beverly Hills is flat-it ought to a cycling paradise. Safe bike routes could be one more reason to go to our neighborhood schools!	05-08-2019	No change required. All bike lane projects will be evaluated to determine the level of separation from vehicle traffic that can be provided. A bikeway on Charleville is included as a recommendation in this plan.

Category	Comment	Created	COBH Response
Recommended Programs	A bus-only lane during peak traffic times (7-9 AM, 4-7 PM) will encourage some people to take the bus instead of driving. Fifty people in a bus takes up a lot less space than fifty people sitting alone in a car.	05-09-2019	No change suggested
Recommended Programs	Roads are not free-they take valuable urban space. And with our horrible congestion we all "pay" the price of wasted time in traffic. Congestion pricing would encourage people to use other modes of transit (walking, cycling, public transit) encourage people to try other routes, and/or encourage people to travel at other times when congestion is not such a problem.	05-09-2019	No change suggested
Recommended Infrastructure	Can we please get diagonal crossing for Beverly/Dayton, Beverly/Brighton and Beverly/S Santa Monica?	05-14-2019	No change required. Pedestrian scrambles are recommended as part of this plan. Specific intersections can be evaluated during implementation.
Recommended Infrastructure	@Michael - Doheny is wide enough to have bike lanes installed. However, I do not see bike lanes being installed on Charleville or Gregory as those 2 streets are too narrow as is when cars are parked on both sides of the street.	05-15-2019	No change suggested
Implementation Plan	I am disappointed that there are not more specific deliverables. For instance in these Tier 1 projects, there is a big difference between Class II and Class III Bike ways. What is the vision? I would rather see a very specific and visionary plan on fewer routes than something sovague.	05-17-2019	More details have been added to the Action Plan for short-term priority projects.
Recommended Infrastructure	All new signals should include a leading interval for walkers. Additionally, none of the signals should require a "push to walk" button...that only discourages walking. Numerous times I arrive a few seconds too late to activate the signal and am required to wait through an additional lengthy cycle to cross. Let's give ALL road users equal opportunity, not prioritize cars alone.	05-17-2019	No change required. The City's traffic engineering team can investigate this issue.
Recommended Infrastructure	The DAY we agreed to striping I emailed Romel (Executive Director) and Tish (board memeber) about proposing an event. They're booked out almost two years. We need to chance our tune on bikes and become part of one of the best days LA has each time this event is held.	05-17-2019	No change suggested
Recommended Infrastructure	While I love my "Civil City" sticker, it hasn't been as handy as I would have hoped in fending off potential accidents with motorists. This starts at the top. Despite the bright green lanes staring us in the face, it was only after Mr. Elliot and I prodded staff about the lanes' exclusion from the press release, that they were added as a feature of North Santa Monica's reconstruction. We were then promised a bike event that got punted to the spring. When I pressed staff in the March TPC meeting, nothing came back. Even the Bike to Work event wasn't marketed, much less to the existing local bike community and advocates. We're anit-bike, and it shows in every single touchpoint.	05-17-2019	No change suggested
Miscellaneous	I believe it was in Public Session #2 where Mr. Lower showed the increased rise of accidents compared to neighboring cities. Yet I could not find that graph in any public materials. Wouldn't be a bad idea to cite that in this document.	05-17-2019	No change required
Recommended Infrastructure	Additionally, it's one of the most dangerous corridors to drive given the parallel parking. I've had multiple friends hit there over the years.	05-17-2019	No change suggested
Recommended Infrastructure	I have consistently used every modality available to me for the past 15 years. While I'm glad to see this document address improvements across all modalities, nothing prevents me from walking, driving or taking a bus across our city today. However, even as a very competent cyclist, I can't comfortably bike through it. It's one of the most dangerous parts of LA I ever bike through. Other than Santa Monica Blvd--something we had to spend over three years fighting for the obvious--the lanes we do have are bridges to nowhere. It should not be lost in reviewing this process and this document that we have consistently punted for four decades the need to develop a holistic bike network. Punting any further is total failure and an embarrassment to our community.	05-17-2019	No change suggested

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