MEETING DATE: 11/08/10

AGENDA ITEM: (1) Approval of a Negative Declaration for and (2) Approval of the Culver City Bicycle and Pedestrian Master Plan.

ATTACHMENTS

		Pages
1	City Council Resolution No. 2010-R	1-3
2	Negative Declaration and Initial Study	4-21
3	Culver City Bicycle and Pedestrian Master Plan and Attachments	22-276

RESOLUTION NO. 2010-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CULVER CITY, CALIFORNIA, APPROVING THE CULVER CITY BICYCLE AND PEDESTRIAN MASTER PLAN AND ADOPTING A NEGATIVE DECLARATION RELATING THERETO.

WHEREAS, it is the intent of the City Council of the City of Culver City to encourage walking and biking in order to help reduced congestion; lower greenhouse gas emissions; promote a thriving, walkable, business environment; and promote healthier lifestyles and improved quality of life for Culver City residents and adjacent communities; and;

WHEREAS, the City's current General Plan, through its Land Use, Circulation and Open Space Elements, calls for the preparation of a Citywide Bikeway Master Plan and adoption of pedestrian access and environmental quality standards to address the challenges of increasing accessibility to, from and within the City while protecting its "small town qualities." In addition, during various community meetings on projects ranging from the Exposition Light Rail Transit Project, Washington National Redevelopment Area and Downtown improvements, the community has expressed interest in developing and improving the City's bicycle and pedestrian facilities.

WHEREAS, the Los Angeles County Board of Supervisors awarded a Los Angeles County Department of Public Health "Policies for Livable Active Communities and Environments" (PLACE) Program grant to the City on July 1, 2008, for the preparation of the City's first ever Citywide Bicycle and Pedestrian Master Plan (BPMP) and the implementation of the BPMP through initiating grant funded programs, reviewing and updating the City's related plans, codes, policies and standards, and the installation of physical bikeway improvements; and,

WHEREAS, after award of the PLACE grant, the City's Public Works Department staff in conjunction with grant partners, the Los Angeles County Bicycle Coalition (LACBC) and Alta Planning and Design (Alta), began working on the BPMP, in coordination with other City departments and the City Council appointed BPMP Public Advisory Committee (PAC). The PAC, with the assistance of Alta, LACBC, and City staff, held five community meetings between April 2009 and June 2010, culminating in the preparation of the BPMP; and,

WHEREAS, on November 8, 2010, the City Council held a duly noticed public meeting on the BPMP, fully considering the related staff report, environmental information and all testimony presented; and

WHEREAS, in accordance with the California Environmental Quality Act (CEQA), the City Council has determined the project will not have a significant adverse environmental impact. Further implementation of the proposed bicycle and pedestrian networks and projects under the BPMP may require project-specific environmental review and analysis under CEQA at the time the actual projects are considered.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF CULVER CITY DOES HEREBY RESOLVE AS FOLLOWS:

Pursuant to the foregoing recitations, the City Council hereby:

1. Adopts a Negative Declaration based on the Initial Study finding that the Culver City Bicycle and Pedestrian Master Plan will not have a significant adverse environmental; and,

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2. Approves the Culver City Bicycle and Pedestrian Master Plan.

APPROVED and ADOPTED this _____ day of _____, 2010.

CHRISTOPHER ARMENTA, Mayor
City of Culver City, California

ATTEST:

MARTIN R. COLE, City Clerk

APPROVED AS TO FORM:

CAROL A. SCHWAB, City Attorney

A10-00392

Culver City

PUBLIC WORKS DEPARTMENT

(310) 253-5600
FAX (310) 253-5626

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

PROPOSED NEGATIVE DECLARATION

Project Title and File No.: Culver City Bicycle and Pedestrian Master Plan

Project Location: Citywide

Project Sponsor: City of Culver City

Project Description: The Bicycle and Pedestrian Master Plan (Plan) serves as an official policy document guiding the development of policies, programs and facilities that foster cycling and walking as healthy, environmentally-sustainable transportation alternatives that reduce traffic congestion and improve the character of the community. The Plan ensures the City of Culver City's eligibility for funding facilities and programs through various grant opportunities, including the State of California's Bicycle Transportation Account. Further implementation of specific policies, projects and programs contained in the Plan may require project specific environmental documentation under CEQA at the time the projects are considered.

Environmental Determination:

This is to advise that the City of Culver City, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this NEGATIVE DECLARATION based on the following finding:

☒ The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

☐ The Initial Study identified potentially significant effects, but:

1. Revisions in the project plans or proposals made by, or agreed to by the applicant before this proposed NEGATIVE DECLARATION AND INITIAL STUDY was released for public review would avoid the effects or mitigate the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2. There is no substantial evidence before the agency that the project as revised may have a significant effect on the environment.

A copy of the Initial Study, and any applicable mitigation measure, and any other material which constitute the record of proceedings upon which the City based its decision to adopt this NEGATIVE DECLARATION may be obtained at:

City of Culver City, Public Works Department
9770 Culver Boulevard, Culver City, CA 90232

The public is invited to comment on the proposed NEGATIVE DECLARATION during the review period, which ends **November 8, 2010.**

John Rivera, Senior Management Analyst

Oct 18, 2010
Date

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Culver CITY
PLANNING DIVISION
9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507
(310) 253-5710
FAX (310) 253-5721

INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM AND ENVIRONMENTAL DETERMINATION

Project Title:	Culver City Bicycle and Pedestrian Master Plan		
Lead Agency Name & Address:	City of Culver City, Public Works Department 9770 Culver Blvd., Culver City, CA 90232		
Contact Person & Phone No.:	John Rivera, Senior Management Analyst (310) 253-5616		
Project Location/Address:	Citywide		
Nearest Cross Street:	Various	**APN:**	Various
Project Sponsor's Name & Address:	City of Culver City Public Works Department (John Rivera) 9770 Culver Blvd., Culver City, CA 90232		
General Plan Designation:	Various	**Zoning:**	Various
Redevelopment Project Area:	Various locations		
Overlay Zone/Special District:	Various locations		

Project Description and Requested Action: *(Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary)*

The City of Culver City is creating its first Citywide Bicycle and Pedestrian Master Plan (Plan). The Plan serves as an official policy document guiding the development of policies, programs and facilities that foster cycling and walking as healthy, environmentally-sustainable transportation alternatives that reduce traffic congestion and improve the character of the community. The Plan ensures the City's eligibility for funding projects and programs through various grant opportunities, including the State of California's Bicycle Transportation Account. Further implementation of specific projects contained in the Plan may require project specific environmental documentation under CEQA at the time the projects are considered.

Existing Conditions of the Project Site:

Conditions vary citywide.

Surrounding Land Uses and Setting: *(Briefly describe the project's surrounding)*

The Plan outlines potential projects and programs along corridors that traverse all areas within the City of Culver City, connecting parks, schools, residential neighborhoods, and commercial districts.

Other public agencies whose approval is required: (*e.g., permits, financing approval, or participation agreement)*

The City of Culver City is the lead agency. Additional approval from the Los Angeles County Metropolitan Transportation Authority is required to ensure consistency with Section 891.2 of the California Streets and Highways Code.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages:

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology /Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION:

On the basis of this initial evaluation:

☒ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a 'potentially significant impact' or 'potentially significant unless mitigated' impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPO**RT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

{sign here} _____ Oct 18, 2010

John Rivera, Senior Management Analyst — Date

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Responses:

a-c) The City of Culver City is a heavily urbanized and nearly built out community on mostly flat land. There are no identified scenic vistas or significant natural scenic resources within the City impacted by the Plan. Furthermore, all the identified projects in the Plan are located along existing street corridors and thus would not obstruct views or detract from the character of the surroundings.

d) For safety reasons, some of the potential projects or programs might require lighting. However, this lighting would be consistent with existing street lighting improvements and local plans such as the Ballona Creek and Trail: Focused Special Study; they would not adversely affect day or nighttime views in the area. There are no related impacts.

Mitigation Measure(s):

None required.

II. AGRICULTURE RESOURCES AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland	☐	☐	☐	☒

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Production (as defined by Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Responses:

a-e) The City is predominantly urbanized and no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Williamson Act lands, or forest lands are located within its boundaries. Furthermore, all the proposed projects in the Plan are along existing street corridors. Thus, the Plan would not result in the conversion of Prime or Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses or prompt additional changes in the existing environment resulting in the conversion of farmland to a non-agricultural use. There are no related impacts.

Mitigation Measure(s):

None required.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Responses:

a-e) The City of Culver City is located in the South Coast Air Basin, under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required to monitor air pollutant levels to ensure that the air quality standards are met and, if they are not, to develop strategies to meet the standards. The South Coast Air Basin is designated a non-attainment area for both the federal and state standards for ozone, PM10, and PM2.5. The SCAQMD recently adopted an Air Quality Management Plan (2007) creating an attainment strategy.

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

The Plan proposes a series of potential projects and programs to be implemented, but does not include a schedule for implementation. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, while impacts are not anticipated, further analysis of potential impacts related to construction activities may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. Generally, the intent of the Plan is to encourage bicycling and walking and to reduce the number of single-occupant vehicle trips, resulting in improved air quality citywide. There are no related impacts.

Mitigation Measure(s):

None required.

IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Responses:

a-d) The City is heavily urbanized. While the Ballona Creek channel crosses the City, it has been placed in a concrete culvert as a result of flood control improvements, and no significant wetland or riparian resources are present in the channel in the City. Furthermore, as all the proposed projects in the Plan are along existing street corridors or the Ballona Creek Bike Path, the Plan does not have the potential to impact any candidate, sensitive, or

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

special-status species, riparian habitat or any other sensitive natural community, or impede the movement of native or migratory fish or wildlife species or native or migratory corridors.

The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, while impacts are not anticipated, further analysis of potential impacts related to construction activities and operation may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. There are no related impacts.

e-f) The Plan would not conflict with any local policies or ordinances protecting biological resources nor would it be subject to the provisions of any adopted Habitat Conservation Plan, Natural Conservancy Conservation Plan, or other local, regional, or state habitat conservation plan. There are no related impacts.

Mitigation Measure(s):

None required.

V. CULTURAL RESOURCES – Would the project				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Responses:

a-d) Early native cultures occupied the coastal areas of Southern California, and archeological resources could be present in the City. Also, the City lies within the historic Ballona Creek floodplain and there is a moderate to high likelihood of paleontological resources in some areas of the City. Approximately 51 buildings in the City have been designated as historic structures or significant historic structures. As the projects proposed in the Plan are located along existing street corridors and the Ballona Creek Bike Path, they would not cause increased development to occur and thus would not disturb archeological or paleontological resources, nor would they impact existing historic structures. Furthermore, the Plan would not disturb any human remains, including those interred outside of formal cemeteries.

The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, while impacts are not anticipated, further analysis of potential impacts related to construction activities and operation may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. There are no related impacts.

Mitigation Measure(s):

10 None required.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Responses:

a) The Newport-Inglewood Fault Zone (an Alquist-Priolo Earthquake Fault Zone) lies within the City. As the projects proposed in the Plan are located along existing street corridors and the Ballona Creek Bike Path, they would not cause increased development to occur or expose persons or property to additional geological hazards (e.g. seismic ground movement, seismic-related ground failure, landslide, etc.). The extent of the damages that would be caused by seismic activity to proposed bicycle and pedestrian infrastructure would be consistent with roadway damage. There are no related impacts.

b-e) The Plan would not cause development to occur on unstable or expansive soil. It is not anticipated that erosion and/or off site sedimentation would occur. The Plan proposes a series of potential projects and programs to be implemented, but does not include a schedule for implementation. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, while impacts are not anticipated, further analysis of potential impacts related to construction activities may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. There are no related impacts.

Mitigation Measure(s):

None required.

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS –Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Responses:

a-b) In 2006, the California State Legislature adopted AB 32 (the California Global Warming Solutions Act of 2006), which charged the California Air Resources Board with developing regulations aimed at reducing the state's greenhouse gas levels to 1990 levels by the year 2020. Two years later, the Governor signed SB 375, an implementation bill for AB 32, which focuses on integrating transportation and land use planning to achieve greenhouse gas reduction goals. The City is participating in the Southern California Association of Government's regional planning efforts relating to AB 32 and SB 375. By encouraging walking and biking, the Plan is consistent with the spirit of AB 32, SB 375 and other applicable plans, policies and regulations aimed at reducing the emissions of greenhouse gases. Furthermore, the Plan is a planning level document. Thus, while impacts are not anticipated, further analysis of potential impacts (related to emissions from construction activities, for example) may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. There are no related impacts.

Mitigation Measure(s):

None required.

VIII. HAZARDS AND HAZARDOUS MATERIALS –Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Responses:

a-d) The Plan would not cause development to occur nor would it result in the transport, use or disposal of hazardous materials or cause any hazard to the public. There are no related impacts.

e-f) The edge of the City is within roughly two-miles of the Santa Monica Municipal Airport and the Los Angeles International Airport although they would not cause a safety hazard for persons residing or working within the vicinity. There are not related impacts.

g-h) The Plan would not impair or interfere with any emergency action or evacuation plan adopted by the City or expose persons or property to increased risk of loss or injury resulting from fire. In fact, by making non-motorized transit more viable, the Plan may further the City's evacuation plan. There are no related impacts.

Mitigation Measure(s):

None required.

IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Responses:

a-g) The Plan would not cause development to occur and would not impact drainage or result in discharges, temporarily or otherwise resulting in a violation of water quality standards. The Plan would not result in an increased risk or flooding or other water hazard as detailed above. There are no related impacts.

h-i) The Plan proposes a series of potential projects and programs to be implemented, but none of the projects would impede or redirect flood flows. While there is a potential for persons to be exposed to flooding if they are using the Ballona Creek Bike Path, the likelihood of exposure is significantly reduce because the Los Angeles County Public Works Department (LACPW) policy of locking all access gates to the creek Bike Path in advance of a storm event. The City of Culver City Public Works Department also has a practice of locking the access gates in the event that LACPW has not. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, further analysis of the potential impacts related to drainage may be required on a project level basis at the time when and in the environmental setting in which the project is implemented. There are no related impacts.

j) The Plan would not cause development to occur and would not otherwise increase risk of water hazard such as inundation by seiche, tsunami or mudflow. There are no related impacts.

Mitigation Measure(s):

None required.

X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Responses:

a) The Plan encompasses a heavily urbanized area. The Plan would not physically divide an established community. In fact, the Plan is intended to increase linkages throughout the City by outlining a more comprehensive bicycle and pedestrian network.

b-c) The Plan is consistent with the General Plan, most notably the goals outlined in the Land Use, Open Space, and Circulation Elements. The Plan is not in conflict with any aspect of the City's Zoning Ordinance, or any applicable habitat conservation or natural community conservation plans. There are no related impacts.

Mitigation Measure(s):

None required.

XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Responses:

a-b) As all the proposed projects in the Plan are along existing street corridors, the Plan will not result in the loss of a known mineral resource that would be of value to the region and the residents of the state. Also, the Plan would not result in the loss of availability of a locally-important mineral resource recovery site delineated in the General Plan or any other land use plan.

Mitigation Measure(s):

None required.

XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Responses:

a-d) The Plan would not cause development to occur. The Plan proposes a series of potential projects and programs to be implemented, but does not include a schedule for implementation. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, further analysis of the potential noise impacts related to any construction activities may be required on a project level basis at the time when and in the environmental setting in which the project is implemented to ensure that any potential noise or vibration generating activities is in compliance with the City's noise ordinance. There are no related impacts.

e-f) The Los Angeles International Airport and Santa Monica Municipal Airport are roughly 2 miles away from the edge of the City (to the south and west respectively). However, the City is not known to experience excessive noise levels from these airports and thus the Plan would not have the potential to expose people to such noise.

Mitigation Measure(s):

None required.

XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Responses:

a-c) The Plan would not induce population growth directly or indirectly. The Plan does not have a housing component and would not displace housing or persons. There are no related impacts.

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation Measure(s):

None required.

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Responses:

a) The Plan would not cause new development to occur. The Plan would not result in the need for construction of any new or remodeled government facilities, so as to maintain acceptable levels of response, service, or performance. Specific focus of the proposed bicycle and pedestrian networks was given to increasing connectivity between origin (single- and multi-family residential) and destination land uses (libraries, schools, parks, commercial districts, etc.). As such, access to public facilities is expected to be enhanced through implementation of this Plan. This may increase use of some public facilities such as the Ballona Creek and Culver Boulevard Bike Paths and area parks, but this increase is expected to be less than significant. There are no related impacts.

Mitigation Measure(s):

None required.

XV. RECREATION –

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Responses:

a-b) The Plan would may promote increased recreational demands, but would have no significant impact on recreational facilities or necessitate the construction of additional recreational facilities. Specific focus of the proposed bicycle network was given to increasing connectivity between origin (single- and multi-family residential) and destination land uses (libraries, schools, parks, commercial districts, etc.). As such, access to recreation facilities will be enhanced and improved through implementation of this Plan. This increased access could increase the use of some parks or recreational facilities, but these increases are expected to be less than significant and are not expected to substantially affect the deterioration rate of existing facilities or their expansion needs.

The Plan proposes a series of potential projects and programs to be implemented, but does not include a schedule for implementation. The proposed projects and the implementation schedule will be dependent on the availability of

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, while impacts are not anticipated, further analysis of potential impacts related to construction activities may be required on a project level basis at the time when and in the environmental setting in which the projects are implemented. There are no related impacts.

Mitigation Measure(s):

None required.

XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulating system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Responses:

a-f) The Plan would not change air traffic patterns, compromise the service standards established by the City and/or the Los Angeles County Metropolitan Transportation Authority congestion management program. Furthermore, the proposed modifications would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the transportation system, including all modes of transportation.

The primary goal of the plan is to promote bicycling and walking as environmentally sustainable transportation alternatives. The Plan is designed to reduce traffic congestion through trip reduction resulting in fewer single-occupant vehicle trips and improved air quality for the community. Across the region and the State, Bicycle Master Plans have been identified as a means of achieving vehicle trip reductions and improving congestion. The State of California Street and Highways Code (Section 890-894.2) outlines the general guidelines for creating a Bicycle Master Plan, where safety and access of all users regardless of age or skill level is a primary component in the planning process. This Plan is consistent with all the guidelines established by the Street and Highways Code.

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EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

All the projects identified in the Plan are along existing street corridors and the Plan does not propose any projects that require removing any travel lanes or any specific traffic calming measures that could potentially increase congestion. Thus, no increases in congestion, impacts on emergency access, or creation of hazards or incompatible uses are anticipated as a result of the Plan. While no impacts are foreseen, this Plan is a planning level document. Therefore, further analysis of the potential traffic impacts related to the establishment of bicycle or pedestrian facilities may be required on a project level basis at the time when and in the environmental setting in which the project is implemented. There are no related impacts.

Mitigation Measure(s):

None required.

XVII. UTILITIES AND SERVICE SYSTEMS –Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Responses:

a-c) The Plan would not result in the construction of new waste or drainage facilities or expansion of existing waste or drainage facilities or require additional service, and would comply with all wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board and all federal, state, and local statutes and regulations as relating to solid waste. There are no related impacts.

d-g) The Plan would not result in increased wastewater or storm water discharges or demand for landfill capacity. The biological integrity of drainage systems or water bodies would not be compromised by the Plan. The Plan proposes a series of potential projects and programs to be implemented, but does not include a schedule for implementation. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, further analysis of the potential impacts related to construction activities and operation of improvements may be required on

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

a project level basis at the time when and in the environmental setting in which the project is implemented. There are no related impacts.

Mitigation Measure(s):

None required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ('Cumulatively considerable' means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Responses:

a-c) The Plan would not create any impacts, individually or cumulatively, known to be detrimental to the environment or community. The primary goal of the Plan is to promote bicycling and walking as environmentally sustainable transportation alternatives. As such, the Plan is intended to reduce traffic congestion and improve air quality. Further the Plan is focused on using bicycle and pedestrian facilities as a means of improving and enhancing the livability and character of the community. The proposed projects and the implementation schedule will be dependent on the availability of funding sources and there is no guarantee when or if the proposed projects will be implemented. Therefore, further environmental review may be required on a project level basis at the time when and in the environmental setting in which the project is implemented. There are no related impacts.

Mitigation Measure(s):

None required.

References Utilized:

1. Culver City Municipal Code
2. Culver City General Plan (1995)
3. SCAQMD Air Quality Management Plan (2007)

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Culver CITY BICYCLE & PEDESTRIAN MASTER PLAN





alta PLANNING + DESIGN

Prepared for:
City of Culver City
Prepared by:
Alta Planning + Design

October, 2010

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Executive Summary

The Culver City Bicycle & Pedestrian Master Plan (BPMP) is the City's first ever comprehensive plan for bicycling and walking. Created through a partnership between Culver City and the Policies for Livable, Active Communities and Environments (PLACE) Program of the Los Angeles County Department of Public Health, the BPMP seeks to articulate a new paradigm for transportation planning in the City that embraces the concept of "Complete Streets." The BPMP also provides a guide for the future development of bicycle and pedestrian facilities, and education, enforcement, and encouragement programs for Culver City. In so doing, the BPMP will encourage walking and biking and lead to a host of associated benefits, including reduced congestion; lower greenhouse gas emissions; a thriving, walkable business environment; and the promotion of healthier lifestyles and improved quality of life in the City and adjacent communities.

While articulating a new paradigm for transportation planning and goals for the City is critically important part of the Plan, it is not sufficient on its own. The Plan must also provide a practical roadmap to help guide bicycle and pedestrian improvements in the City. With this in mind, the Plan inventories and evaluates the City's current bicycle network, addresses opportunities and constraints, and recommends specific policy changes to encourage bicycling and walking. The Plan's attached Design Guide also provides guidance for implementing high quality facilities, including shared-use paths, bike lanes, bike routes, bicycle parking, and newer treatments such as Bicycle Friendly Streets and sharrows that conform to current standards and best practices. The Plan prioritizes bicycle and pedestrian facilities and—because grant funding is necessary to implement the proposed projects and programs—the Plan establishes funding and implementation priorities for the upcoming years.

As the City's first Bicycle and Pedestrian Plan, this document is critically important in advancing bicycle and pedestrian issues in the City. Yet it is important to acknowledge that, despite its strengths, this first Plan is also just the first step in a long journey. The City must update the Plan regularly as conditions change and the City progresses towards its bicycle and pedestrian goals. In addition, just as public input greatly enriched this first Plan, continued civic participation from neighborhoods, advocacy organizations, the business community, and others is essential as the City implements and updates this Plan in future years.

Vision

In creating its first ever Bicycle and Pedestrian Master Plan (BPMP), the City of Culver City is embracing a new vision of transportation planning, recognizing that it is essential to enhancing the quality of life for not only residents and visitors, but also the broader community and world. To this end, the City is adopting the concept of Complete Streets, which emphasizes a balanced transportation system that considers all users of the road when planning development and transportation projects, whether cyclists, pedestrians, transit riders, or vehicles. The City is also articulating its principal goal:



Culver City is embracing a new vision of transportation planning

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To transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.

Project Process

The BPMP, including the focus on the concept of Complete Streets and the principal goal presented above, was developed as a result of a community-based process that included five public workshops and extensive participation from a City Council-appointed Public Advisory Committee (PAC). The PAC consisted of bicycle and pedestrian advocates, representatives from neighborhood organizations, and representatives from the business community. Culver City also convened a Technical Advisory Committee (TAC) composed of City staff from Departments that have a stake in overseeing and implementing the Plan. The TAC provided input throughout the BPMP's development.

Existing Conditions

The BPMP reviews those Elements of the current Culver City General Plan that relate to bicycling and walking, specifically the Circulation Element, Open Space Element, and Land Use Element. The Circulation Element calls for a comprehensive bikeway plan and identifies Ballona Creek as the backbone of Culver City's bikeway network. The Open Space Element dictates human-scale design that caters to pedestrians; it designates bike paths as active recreation areas and calls for new bike paths along National Boulevard and better on-street connections between Downtown and the Ballona Creek Bicycle Path. The Land Use Element of the Culver City General Plan establishes walkability as a guiding principle for Culver City's development.

The BPMP then reviews walking and bicycling related Municipal Codes. It covers Ballona Creek Resolution No 2004-R044, which promotes active use of the Creek while mitigating the potential negative effects on residents who live alongside it. The BPMP also examines design guidelines for Downtown Culver City that foster walking.

Finally, the BPMP catalogues the existing bicycle and pedestrian facilities. The existing bikeways in Culver City are the Ballona Creek Bike Path, Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane. The Plan lists existing pedestrian areas, including Downtown Culver City, major employment and commercial centers, parks and open space, retail centers, commercial corridors, schools, and residential areas. The BPMP also reviews the bicycle parking in Culver City.

Needs Analysis

To identify the needs of bicyclists and pedestrians in Culver City, the project team (City Staff, Alta Planning + Design and the Los Angeles County Bike Coalition) working with the PAC and community volunteers conducted an online survey, bicycle and pedestrian counts, bike and walk audits, and public workshops. The team also analyzed collision statistics involving bicyclists and pedestrians in Culver City.



The online survey solicited information about purposes, frequency, and trip characteristics of walking and bicycling. It also asked for respondents' favorite areas to bike and walk as well as areas needing improvement. The survey helped to ensure public involvement throughout the development of the BPMP. Key conclusions of the survey include:

- Most utilitarian bike trips are less than 6 miles; bicyclists' top concern is safety, especially as it relates to car speeds
- Many pedestrians walk for exercise and health
- Pedestrians want pleasant walking conditions on major arterials

The bicycle and pedestrian counts indicate where people in Culver City are currently bicycling and walking, and how bicyclists in Culver City behave, particularly concerning rates of sidewalk riding, wrong way riding, and helmet use. Trained volunteers counted over 1,800 bicyclists and over 4,500 pedestrians at 18 intersections throughout the City. Key results of the counts include:

- Male bicyclists outnumbered female bicyclists 4:1
- Many people bicycle on Washington Boulevard, which had the highest volumes of bicyclists after the Ballona Creek Bike Path, the Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane
- Over 42% of all pedestrians counted were at the intersection of Culver Boulevard and Cardiff Avenue in Downtown Culver City, reflecting Downtown's attraction for pedestrians

The bike and walk audits of six geographically diverse, strategically selected locations around the City provided an on-the-ground evaluations of the City's walking and bicycling conditions, and gave PAC members and volunteers an opportunity to learn about how and where physical improvements might be installed in Culver City. Audits identified:



- Sidewalk obstructions
- Crossing problems
- Lack of shade
- Discomfort due to high motor vehicle speeds, and
- Rough road conditions for bicyclists

At public workshops, attendees had the opportunity to comment on existing bicycle and pedestrian facilities in Culver City, and to suggest improvements and programs. The BPMP summarizes the public comments. Particular concerns included:

- Safety on the Ballona Creek Bike Path

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- Difficult and potentially hazardous intersections and roads for biking and walking
- Enhancing multi-modal connections and bike parking

Collision statistics over the past five years indicate the relative safety of bicycling and walking throughout the City. The BPMP includes maps of all bicycle and pedestrian collisions of the past five years. Bicycle collision rates remained constant over the past five years, while pedestrian collisions rose slightly in the past two years.

All of the elements of the needs analysis informed the selection and prioritization of the recommended bicycle and pedestrian network.

Bicycle and Pedestrian Network

The BPMP proposes a bicycle network of 36.88 miles of bikeways, including 6.5 miles of bike lanes, 9.73 miles of sharrows (technically named "Shared Roadway Bicycle Marking" and also referred to as a "Shared Lane Marking"), 5.61 miles of bike routes, and 14.62 miles of potential Bicycle Friendly Streets. On major roadway segments that are not wide enough to accommodate a bicycle lane without roadway reconfiguration and meet the State required guidelines, the BPMP recommends sharrows and bicycle route signage. Also, the BPMP identifies streets that have potential for designation as "Bicycle Friendly Streets" after further analysis and, if needed, improvements. Bicycle Friendly Streets is a bikeway designation referring to enhanced routes on residential streets with low traffic volumes. Prior to a Bicycle Friendly Street designation, they will receive bicycle route signage at a minimum, and may receive custom signage, sharrows, and, if needed, traffic calming measures.

The BPMP also identifies Pedestrian Improvement Zones and Corridors based on public input and fieldwork. Pedestrian Improvement Zones are areas with high pedestrian demand and potential and their designation gives them priority for pedestrian improvements. Pedestrian Improvement Corridors are linear segments of roadway identified as significant to pedestrian travel in Culver City.

To prioritize the bikeway and pedestrian networks, the BPMP scores and ranks them according to six criteria identified by the PAC and TAC. In priority order, these criteria are:

1. Closes system gaps and creates connectivity to existing facilities
2. Creates connections to activity centers
3. Proximity to transit hubs
4. Proximity to schools

5/6. Reduces collisions & accounts for public input (tie)

Each project in the proposed bikeway and pedestrian networks receives a weighted score according to these criteria and the priority ranking above. The BPMP presents the resulting project priorities in **Tables 6.2** and **6.3**.

The BPMP includes a detailed presentation of the most critical project, as well as the five high-priority bicycle projects and the five high-priority pedestrian projects. The project sheets include a description of the project area and issues, a listing of the specific improvement recommendations, a cost estimate, an overview map of the project area, and conceptual designs of each of the bicycle/pedestrian improvement recommendations.

Enforcement, Education, and Awareness

Creating a city that supports and encourages its residents to bicycle and walk involves more than just infrastructure improvements. The BPMP proposes ongoing enforcement, education, and awareness programs and identifies City agencies and community populations that should participate in these programs. These include:

- Targeted enforcement
- Bicycle patrol units, speed limit enforcement
- Ballona Creek Bike Path Volunteer Program
- Adult cycling skills education, motorist education
- School-based education
- Creation of a safety handbook

To increase awareness and encourage bicycling and walking, the BPMP proposes a Safe Routes to School Program, a Share the Road education campaign, a bike light campaign, a bike-to-health campaign, bicycle parking at events, community bikeway and walkway adoption, a multi-modal access guide, Ciclovias, a bicycle and pedestrian signage program, and a Ballona Creek Bike Path Volunteer Program.

Funding

The BPMP catalogues available funding sources for network improvements as well as enforcement, education, and awareness programs. The Plan sorts these funding sources by level of government, either federal, State of California, County of Los Angeles, or local. It describes the purpose of each funding source and the types of projects and programs that are eligible for funding by that source, as well as the selection process and the criteria used to select grantees.



Evaluation & Implementation Responsibility

Evaluation is a critical to ensuring that the Plan meets its goals and contributes to a truly bicycle and pedestrian friendly City. The BPMP includes a discussion of an evaluation program to serve this purpose. Additionally, this chapter designates the Public Work Department's Administration Division as the agency in the City charged with implementing and evaluating the BPMP.

Goal, Objectives, Policies, and Actions

The document concludes with a reiteration of the principal goal of the Plan and an identification of objectives, polices and actions to help meet this goal. This goal and its associated objectives, policies and actions relate to all the issues addressed in the BPMP, from vision, to policy changes informed by the existing conditions, to

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expanding the City's network of facilities and creating non-infrastructure programs to encourage cycling and walking. The objectives presented in the Plan include:

- Objective 1 - Implement the 2010 Bicycle and Pedestrian Master Plan (BPMP), by initiating funded projects and programs and pursuing grant funding for unfunded projects and programs over the next 5 years.
- Objective 2 – Implement a "Complete Streets" Program by evaluating the needs of and/or the potential impacts on cyclists and pedestrians, including persons with special mobility needs, during planning/review of proposed public and private development and capital improvement projects.
- Objective 3 - Create a Mobility Coordinator position.
- Objective 4 - Reduce the number of bicyclists and pedestrian involved in traffic crashes.
- Objective 5 – Over the next five (5) year planning period, double the percentage of total trips made by bicycling and walking in the City as observed from the City's 2009 bicycle and pedestrian counts.
- Objective 6 - Amend and update the bicycle and walking related sections of the Municipal Code.
- Objective 7 – Annually evaluate the outcomes of the BPMP implementation.

Appendices

The document contains two appendices; **Appendix 1** is the Bicycle and Pedestrian Design Guide and, **Appendix 2** includes all the comments received on the draft of this Plan, which was released to the public, along with responses.

1. Introduction

1.1. Vision

Historically, transportation planning focused primarily on the car, often at the expense of other modes of transportation. The result of this emphasis is clear: a car-dominated environment that fills roads to the point of intense congestion, uses vast amounts of fossil fuel, and harms human health by discouraging walking and biking and by sending harmful pollutants into the air. Gradually, this mentality is changing. Cities across the state and nation are beginning to recognize that walking and biking are a viable means of transportation and that creating accessibility for all modes of travel is not only essential, but inevitable in order to accommodate future travel demand and address our environmental and health challenges.



In creating its first ever Bicycle and Pedestrian Master Plan (BPMP), the City of Culver City is embracing this new vision of transportation planning, recognizing that it is essential to enhancing the quality of life for not only residents and visitors, but also the broader community and world. To this end and as part of this Plan, the City is adopting the concept of Complete Streets, which emphasizes a balanced transportation system that considers all users of the road when planning transportation projects, whether cyclists, pedestrians, transit riders, or vehicles. The City is also adopting the goal of transforming itself into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, Culver City hopes to encourage more people to forgo car trips in favor of alternative forms of transportation and to become truly bicycle and pedestrian friendly.

While articulating a new paradigm for transportation planning and goals for the City is critically important part of the Plan, it is not sufficient on its own. The Plan must also provide a practical roadmap to help guide bicycle and pedestrian improvements in the City. With this in mind, the Plan inventories and evaluates the City's current bicycle network, addresses opportunities and constraints, and recommends specific policy changes to encourage bicycling and walking. The Plan's Design Guide (Appendix 1) also provides guidance for implementing high quality facilities, including shared-use paths, bike lanes, bike routes, bicycle parking, and newer treatments such as Bicycle Friendly Streets and sharrows that conform to current standards and best practices. The Plan prioritizes bicycle and pedestrian facilities and—because grant funding is necessary to implement the proposed projects and programs—the Plan establishes funding and implementation priorities for the upcoming years.

As the City's first Bicycle and Pedestrian Plan, this document is critically important in advancing bicycle and pedestrian issues in the City. Yet it is important to acknowledge that, despite its strengths, this first Plan is also just the first step in a long journey. The City must update the Plan regularly (every five years) as conditions change and the City progresses towards its bicycle and pedestrian goals. In addition, just as public input greatly enriched this first Plan, continued civic participation from neighborhoods, advocacy

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organizations, the business community, and others is essential as the City implements and updates the Plan in future years.

Special thanks to everyone who participated in the process of creating this document, including the Public Advisory Committee (PAC) and the Technical Advisory Committee (TAC). Also, many thanks to the Los Angeles County Department of Public Health's Policies for Livable, Active Communities and Environments (PLACE) program for the funding and support they provided, without which this document would not exist.

The following details how the City developed the BPMP, including its vision and the principal goal that guides the Plan.

2. Project Process

2.1. Draft Plan Process

The BPMP is the product of significant public outreach, input, and work from City staff, staff of the Los Angeles County Department of Public Health, volunteers, advocates, and the project team.

The project team conducted five public meetings toward the production of this plan.

- The first public workshop occurred in April 2009. This meeting asked workshop participants to report on existing bicycle and pedestrian conditions in Culver City.
- The second public workshop occurred in July 2009. This workshop asked participants to provide feedback on the areas planned for new facilities or the existing conditions that need improvement, as well as provide input on project goals.
- The third public workshop occurred in October 2009. This meeting provided a rough draft of the pedestrian and bicycle network as well as an introduction to the bicycle/pedestrian connector between East Culver City/Expo Light Rail Station and Downtown.
- The fourth public workshop occurred in January 2010. This presentation focused on the locations of specific bicycle and pedestrian facilities in Culver City. Participants provided feedback on the network recommendations.
- The fifth public workshop occurred in June 2010. This workshop oriented the public to the organization of Culver City's draft Bicycle and Pedestrian Master Plan.

2.2. Public Advisory Committee and Technical Advisory Committee

Culver City's City Council approved and appointed members to a Public Advisory Committee (PAC) in order to guide the Master planning process. The PAC's primary role was to ensure that the BPMP considered and represented public input. The PAC also served in an advisory role for recommendations incorporated in the Plan. PAC members selected included individuals from neighborhood organizations, the business community, bicycle/pedestrian advocates, and others from a variety of professional and personal backgrounds. The City also formed a Technical Advisory Committee (TAC) comprised of representatives from city agencies that will have a stake in overseeing and implementing the Plan, such as Public Works, Transportation, Community Development, and Police (CCPD). The TAC consulted with the project team throughout the development of the Plan, and participated in the needs analysis.

2.3. Public Advisory Committee Goal Exercise

The PAC convened in August 2009 to discuss the results of the second public workshop, which focused specifically on identifying primary and secondary project goals for the BPMP. During this second workshop, participants voted for their top priorities pertaining to bicycle and pedestrian policies, as well as bicycle and pedestrian areas in need of improvement in Culver City. The PAC discussed the most common responses, which dealt with shifting the focus from motor vehicle use toward more bicycling, walking, and transit use. Based on the outcome of the public ranking exercise, the PAC transformed the public input into project goals for the BPMP. The PAC adopted the following six areas as the highest priority policies and areas in need of being addressed according to primary, secondary, and tertiary goals:

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- Bicycle & Pedestrian Network Improvements
- Programs
- Support Facilities
- Pedestrian Improvement Corridors
- Bikeway Corridors
- Intersection Improvements

The City used these six areas and the public workshop process to develop the vision for the document and principal, overarching goal and associated objectives, policies, and actions, which are presented in Chapter 10 of the Plan. The principal goal is as follows:



Members of the PAC participate in a public workshop

> ***To transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.***

Table 2-1: Project Goals

Bicycle and Pedestrian Network		
Primary Goal	Secondary Goal	Tertiary Goal
Adopt a "complete streets" policy requiring bicycle and pedestrian improvements in all transportation and development (private or public) projects subject to discretionary review (discussed in Section 2.4)	Improve bicycling conditions and connectivity on primary and secondary arterials. Provide more bicycle parking and support facilities at destinations on private development and public property. Add pedestrian facilities in areas with high pedestrian activity (where appropriate), especially Downtown, in commercial areas and schools. Widen and/or add amenities to existing sidewalks.	
Programs		
Primary Goal	Secondary Goal	Tertiary Goal
Develop and citywide educational program for all users of roadways and bicycle facilities	Collaborate with businesses and business organizations to promote bicycle ridership as part of a Transportation Demand Management (TDM) strategy to reduce or redistribute automobile use.	
Support Facilities		
Primary Goal	Secondary Goal	Tertiary Goal
Enhance transit stations and bus stops to facilitate multi-modal trips by adding facilities/amenities where appropriate.	Improve safety and amenities along existing bike paths.	
Corridors in Need of Bikeway Improvements		
Primary Corridor	Secondary Corridor	Tertiary Corridor
Washington Boulevard	Overland Avenue	Jefferson Boulevard
Areas in Need of Pedestrian Improvements		
Primary Area	**Secondary Area**	**Tertiary Area**
Schools	Major shopping centers, including Downtown, Costco, and the Target / Bed Bath & Beyond / Pavilions area.	Washington Boulevard (west of Overland Avenue)
Intersection Improvements		
Primary Intersection	Secondary Intersection	Tertiary Intersection
Jefferson Boulevard at Overland Avenue	Washington Boulevard at Ince Avenue	Culver Boulevard at Overland Avenue

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2.4. Complete Streets in Culver City

As stated previously, the PAC emphasized the importance of "Complete Streets," a movement to design roadways for all modes of transportation, including pedestrian, bike, transit and motor vehicle. This movement stems from difficulties bicyclists, pedestrians, the elderly and others may have when using streets primarily designed for motor vehicle use.

Bicyclists have legal access to all city streets. While the BPMP identifies a specific subset of streets as existing or potential official Bikeways or Pedestrian Corridors, most bicyclists and pedestrians will need to use other streets beyond those officially recognized in this Plan in order to reach their destinations. Therefore, it is important that all roadways, to the extent possible, have features that accommodate all users of the road. The California Complete Streets Act (CCSA) of 2008 (AB 1358) mandates that cities plan for all users of roadways.

> *Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan....*
>
> *For purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.*
>
> - California Complete Streets Act of 2008

The CCSA lays out the minimum provisions for meeting bicyclists and pedestrian requirements. Having a "balanced" transportation network is a lofty goal because networks historically favor motor vehicle movement. The BPMP goes beyond the CCSA stipulations and recommends prioritizing efforts to create policies, programs and infrastructure for bicyclists and pedestrians in order to help develop a balance between the movement of people using all modes of transportation.



The Culver City BPMP will also be compliant with the California Streets and Highway codes, specifically section 891.4, which relates to bicycle transportation plans.



Before **After**

Commonwealth Avenue is a major connector to Boston University. In 1998, the public noticed the lack of bicycle facilities in plans for improving the corridor. Through the partnership of advocates, the public, and city, the revised plans added bicycle lanes. In addition to bicycle facilities, the project enhanced pedestrian and transit amenities. The Commonwealth Avenue project removed a double turn lane and replaced it with widened sidewalks, additional street trees and planter boxes, high visibility crosswalks, and a landscape median to shorten the crossing distance between transit access and the sidewalk. This example shows how a complete street can transform an auto-centric street into a street for all mode-types and users. However, complete streets can take many forms and may not include all of these components.

Figure 2.1: Complete Streets Case Study, Commonwealth Avenue, Boston Massachusetts

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2.5. Bicycle Transportation Account Compliance

The Bicycle Transportation Account (BTA) is the most common source of bicycle facility funding in the State of California. BTA funds can fund City projects that improve safety and convenience for bicycle commuters. In order for Culver City to qualify for BTA funds, its Master Plan must contain specific elements. Table 2-2 displays the requisite BTA components and their location within this plan. The table includes "Approved" and "Notes/Comments" columns for the convenience of the Caltrans official responsible for reviewing compliance.

Table 2-2: BTA Requirement Checklist

Approved	Requirement	Page(s)	Notes/Comments
	a) Existing and future bicycle commuters	24	
	b) Land-use map/population density	28	
	c) Existing and proposed bikeways	4, 16-18, 29-38, 65-71	
	d) Existing and proposed bicycle parking facilities	21, 30-31, 37-38, 57	
	e) Existing and proposed multi-modal connections	37-38, 57	
	f) Existing and proposed facilities for changing and storage	29	
	g) Bicycle safety and education programs	5, 104-111	
	h) Citizen and community involvement	10-12, 55-61	
	i) Consistency with transportation, air quality, and energy plans	19-25	
	j) Project descriptions / priority listings	76-102	
	k) Past expenditures and future financial needs	84-94, 122	

3. Existing Conditions

This chapter describes existing conditions for bicycling and walking in Culver City. It includes a review of plans, ordinances, and programs related to bicycling and walking; a summary of the existing bikeways and pedestrian facilities; and an analysis of data detailing bicycle and pedestrian collisions.

3.1. Existing Bikeways

The BPMP refers to bikeways using California Department of Transportation (Caltrans) standard designations. The section below defines the three types of bikeways identified by the Streets and Highways Code and by Chapter 1000 of the Highway Design Manual (HDM)

Figure 3.1 illustrates the three types of bikeways.

- Class I Bikeway: Typically called a "bike path," a Class I Bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- Class II Bikeway: Often referred to as a "bike lane," a Class II Bikeway provides a striped, signed, and stenciled lane for one-way travel on a street or highway.
- Class III Bikeway: Generally referred to as a "bike route," a Class III Bikeway provides for shared use with bicycle or motor vehicle traffic and uses only signage identification.

Culver City contains approximately 4.22 miles of bikeways. This includes 3.22 miles of off-street bicycle paths and one mile of bike lanes.

Map 3.1 identifies the corridors listed in Table 3-1 and **Error! Reference source not found.**, as well as existing pedestrian facilities. Each of these bikeway facilities connects to a similar facility in the City of Los Angeles, which in turn provides access to the regional bikeway network.

Table 3-1: Culver City Existing Class I Bike Paths

Class	Name	Start	Finish	Miles
I	Culver Boulevard Bike Path	Elenda Street	Culver City Limit	0.72
I	Ballona Creek Bike Path	National Boulevard	Culver City Limit	2.50
			TOTAL	**3.22**

Table 3-2: Culver City Existing Class II Bike Lanes

Class	Name	Start	Finish	Miles
II	Venice Boulevard	Overland Avenue	Bledsoe Avenue	1.00
			TOTAL	**1.00**

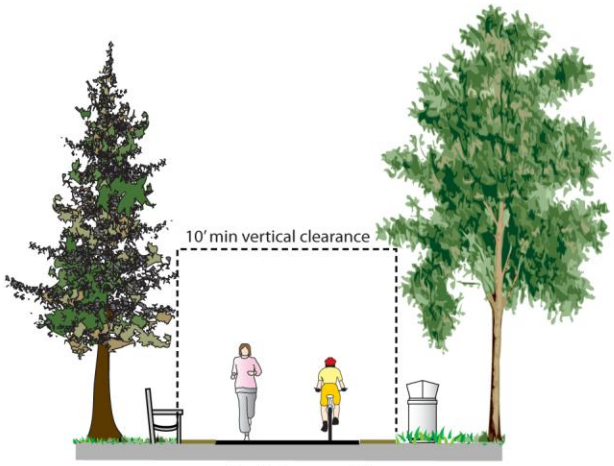
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Class I





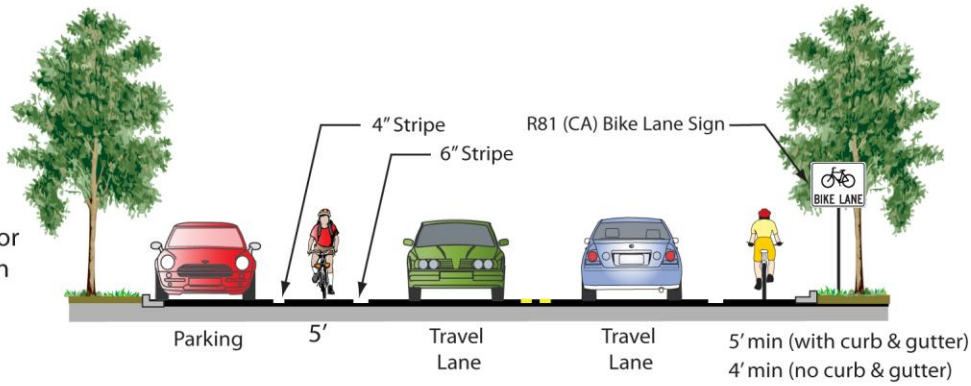
Provides completely separated right-of-way for exclusive use by bicycles and pedestrians with cross-flow minimized



Class II



Provides stiped lane for one way bike travel on a street or highway



Class III



Provides for shared use with pedestrians or motor vehicles, typically on lower volume roadways

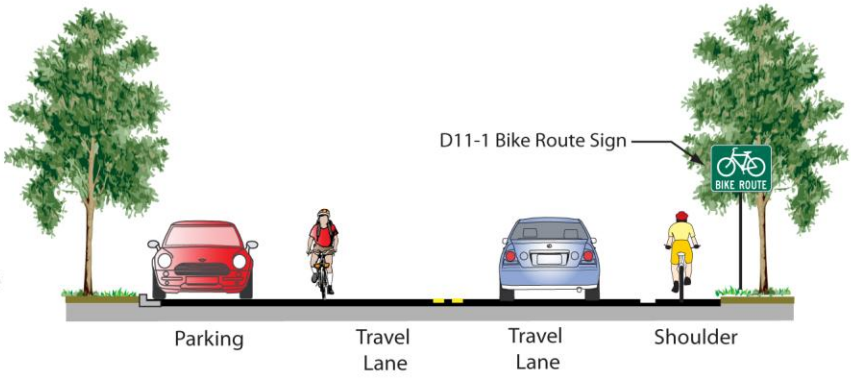
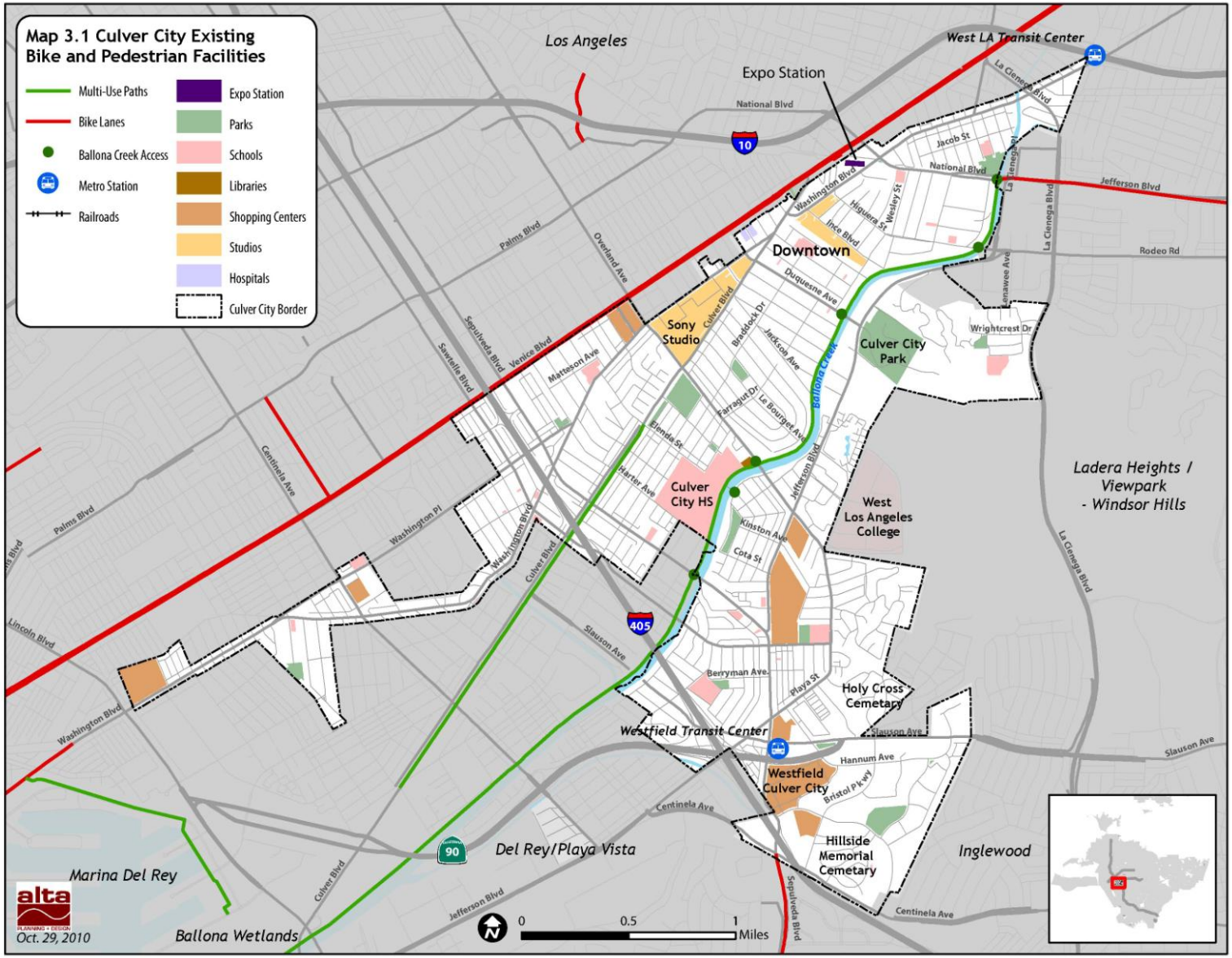


Figure 3-1: Caltrans Bikeway Classifications



Map 3.1: Culver City Existing Bike and Pedestrian Facilities

3.2. Policy Review

This section reviews relevant existing policies, documents, and ordinances to the BPMP. These documents provide the political framework for bicycle and pedestrian conditions in Culver City.

3.2.1. Culver City General Plan: Circulation Element

The 1996 Circulation Element (CE) of the General Plan addresses the challenges of increasing accessibility to, from, and within Culver City while protecting its "small town qualities." One part of the solution is to establish a "comprehensive bikeway plan," a primary objective within the CE.

A bicycle plan creates a system of policies that make bicycling a viable means of transportation within the City. In order to maximize the bikeway network's impact on congestion relief, the network must connect bicyclists of varied skill levels to the places they want to go.

The CE identifies the Ballona Creek Bike Path as the "backbone" of the City's bikeway network. While many view it as solely a recreational facility, increasing bikeway connectivity to it expands its ability to meet the transportation needs of Culver City bicyclists. Additionally, the CE identifies most of the City's primary and secondary arterials and neighborhood feeders as proposed bikeways.

Connectivity is also an important issue for pedestrians. The Circulation Element seeks to increase pedestrian connectivity to transit stations and improve the pedestrian environment throughout the City.

3.2.2. Culver City General Plan: Open Space Element

The Culver City Council approved the Open Space Element (OSE) in 1996. It addresses several issues that pertain to bicyclists and pedestrians, including Active Recreation Areas, Urban Forests, and Streetscape Designs. This Element discusses the concept of the "Pedestrian-Oriented Emphasis." This approach dictates human-scale design, including transparent storefronts, benches, street lighting closer to the sidewalk, and other designs that cater to pedestrians.



Culver City parks are an important component of the pedestrian network

The OSE includes Bike Paths in the definition of Active Recreation Areas. The City must face the challenge of promoting and upgrading the Ballona Creek Bike Path facility without adversely affecting its adjacent neighborhoods.

The OSE includes references to policies that address bicycle and pedestrian issues, the most relevant of which the report discusses below.

Bicycle Policy

Policy 2D of the Open Space Element proposes bikeway connectivity to Downtown from the Ballona Creek Bike Path. Duquesne Avenue and National Boulevard currently serve as access points to the Ballona Creek Bike Path and Downtown bound bicycle traffic. The Expo line bikeway enables bicycle access to Ballona Creek, Downtown Culver City, and the Expo Light Rail station. Higuera Street crosses over the Ballona

Creek Bike Path, but does not provide path access. Funding for the Higuera Street project is under study. Currently, Duquesne Avenue, National Boulevard, and Higuera Street (arterials) are not designated as bikeways within Culver City.

Policy 2E discusses Overland Avenue and Culver Boulevard. Overland Avenue is a major component of Culver City's transportation system, connecting to:

- Ballona Creek Bike Path
- Venice Boulevard Bike Lanes
- Employment (Sony)
- Civic/public life (Veteran's Center, Senior Citizen Center)
- Recreation (Ballona Creek Bike Path, Veteran's Park)
- Commercial Centers (Culver Center, *Ralphs*, *Best Buy*, *Bally Fitness*)
- West Los Angeles College
- Residential neighborhoods

A segment of Culver Boulevard currently features a bike path. **Section 3.4.1** discusses the Culver Boulevard Bike Path in more detail.

Policy 2F calls for the development of a bike path along National Boulevard and pre-dates the Exposition Light Rail Transit Project (Expo) plans. As part of the Expo project, there are plans for a Class I facility in Culver City that parallels the Expo right-of-way.

Policy 2G encourages expanding active recreation opportunities along the Ballona Creek Bike Path. The Ballona Creek Focused Special Study prepared and developed planning proposals in response to this policy. Refer to further discussion on the Ballona Creek Bike Path in **Section 3.5.**

Policy 2H discusses Syd Kronenthal Park and its connectivity to the Ballona Creek Bike Path. Syd Kronenthal Park is on the north side of National Boulevard and is directly west of the Ballona Creek Bike Path. The park needs a paved pathway to better connect to the Ballona Creek Bike Path and the surrounding communities.

Policy 3C discusses the concept of "Parkettes." Parkettes are small-scale parks, taking advantage of under-utilized parcels of property. The installation of Parkettes will contribute to a pedestrian friendly Culver City. Parkettes can provide additional seating and eating areas that are valuable community amenities, and provide incentives for people to walk and rest. An important element of Policy 3C is to identify potential "highly visible" areas for future projects.

3.2.3. Culver City General Plan: Land Use Element

This document provides the guidance for all land use planning in Culver City. A major theme within the Land Use Element is walkability. The Plan seeks to guide development in a pedestrian friendly pattern that connects residential, recreational, and commercial land uses together.

Of particular interest to Culver City is maintaining growth that is "human-scale." In addition to calling for the creation of a citywide bicycle master plan, the Land Use Element calls for a pedestrian oriented Downtown that separates users from busy arterials. The Land Use Element also addresses bikeway

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connectivity by focusing on the use of bicycle facilities that link to Ballona Creek, Downtown and other activity centers.

3.2.4. Bicycling-Related Sections of the Municipal Code

Bicycle Parking

There are several sections of the Culver City Municipal Code (CCMC) that relate to the provision and design of bicycle parking.



Bicycle parking in Downtown Culver City

CCMC §17.320.045 states that bicycle parking is to be provided at most multi-family and non-residential uses. Generally, bicycle parking is required at rates that vary between 5-10% of the motor vehicle parking provided at the respective facility. This section dictates bicycle parking design by requiring that facilities be stationary, installed at a minimum distance of five feet from vehicle parking, and conveniently located.

CCMC §7.05.015 (Transportation Demand and Trip Reduction Measures) imposes additional requirements for bicycle parking. It requires all new non-residential developments that equal or exceed 50,000 gross square feet provide bicycles racks or other secure bicycle parking as a way to encourage biking as an alternative mode of transportation and reduce the use of automobiles.

The Municipal Code also mentions the use of in-lieu fees to pay for bicycle parking (§17.320.025). In-lieu fees allow non-complying parties to pay fees deposited to a central funding source for additional parking. Furthermore, the CCMC expressly prohibits using parking meters as bicycle parking (§7.03.535) and provides additional guidance on where bicycles can park legally (§7.04.240).

Bicycle Riding

The CCMC also contains provisions that relate to bicycle riding. Many of these code sections simply repeat or paraphrase the California Vehicle Code (CVC), or they are actually in conflict with the CVC. For example, CCMC §7.04.220 contains language regarding a bicyclist's position on the road. CVC §21202 provides superior language with detailed exceptions that benefit the safety of bicyclists. CCMC §7.04.245 precludes bicyclists from riding on a street where a bicycle path is provided, which is inconsistent with the CVC. If enforced, this code would prohibit bicyclists from riding on Culver Boulevard wherever the Culver Boulevard Bike Path is present.

Other sections of note relating to bicycle riding include CCMC §7.04.250 relating to riding on sidewalks, CCMC §7.04.235 prohibiting bicyclists carrying items while riding a bike in a manner that prevents them from placing both hands on the handlebars, CCMC §7.04.250 relating to the purchase of new bicycle lights, and the requirements of lights and reflectors. Finally, CCMC §7.04.215 refers to limits and restrictions on group riding, specifically prohibiting multiple individuals from riding on a standard bicycle. This law most likely intends to affect youths who frequently give each other rides on their bicycle. Often times these riders travel at slow speeds, on sidewalks, or on residential streets.

3.2.5. Walking Related Sections of the Municipal Code

The CCMC not only provides guidance on bicycle parking and riding, but also on various pedestrian-related topics.

CCMC §9.08.035 authorizes the administrative licensing of outdoor dining areas where they will promote commercial revitalization and business opportunities in a manner that is consistent with public welfare and safety. Because of this provision and the popularity of these outdoor dining areas that accent the vibrant pedestrian friendly Downtown area (which places many individuals on the sidewalk at any given time), the regulation and oversight of sidewalks is an area to examine in the BPMP.

CCMC §7.05.015 (Transportation Demand and Trip Reduction Measures) requires all new non-residential developments that equal or exceed 100,000 gross square feet to provide direct and safe pedestrian access to/from vehicle and bicycle parking and transit facilities.

3.2.6. Ballona Creek and Trail: Focused Special Study and Ballona Creek Related City Council Resolution No. 2004-R044

The Focused Special Study discussed the state of—and a proposed vision for—Ballona Creek and its surrounding neighborhoods. In the document, the term "trail" refers to a paved Bike Path. One of the key goals of the Focused Special Study was to "promote the development of a pedestrian and bicycle path system that will be safe, secure and meet ADA accessibility requirements."



The Ballona Creek is one of the most popular facilities for pedestrians and bicyclists in Culver City

The study recognized the use of the path for both commuting and recreational purposes. Accessibility to and the safety of the path for pedestrians, bicyclists, and others with impaired mobility was a primary concern. The study promoted active use of Ballona Creek while mitigating the potential impacts on the adjacent residential areas. The Council received and filed the study in January 2004. The Council adopted Table 5A (following page) and directed amendments to the Land Use, Open Space and Circulation Elements of the General Plan incorporate the concepts expressed in **Table 3.3**. The City Council Resolution No. 2004-R044 amends the Land Use, Open Space and Circulation Elements of the Culver City General Plan as they pertain to the Ballona Creek. Table 5A of the Ballona Creek and Trail Focused Special Study provides guiding principles for improvements that will connect the Ballona Creek Bike Path with the rest of the City Bicycle Network. Major themes of the Resolution include:

- Protecting the surrounding neighborhoods from externalities of trail access and use
- Establishing guidelines that direct future improvements/additions to the trail
- Safety, maintenance, and crime prevention
- Including surrounding communities in the improvement process
- Installing Class II bike lanes along major arterials to facilitate bicycle travel to/from the Ballona Creek Bike Path

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Table 3-3: Ballona Creek and Trail Focused Special Study (Table 5A)

Final Design and Planning Principles

Table 5-A

Flood Control

1. Maintain or improve the ability of Ballona Creek to convey floodwaters.

2. Take no actions that would interfere with or impair the ability to maintain Ballona Creek for the purpose of carrying floodwaters.

Quality Of Life

1. Limit new access to trails from existing residential neighborhoods to discourage trail users from parking in those neighborhoods to access the trail.

2. Provide for vertical separation and buffer between the elevation of the bike trail and adjacent residential yards.

3. Provide additional landscaping and fencing to buffer public use areas from residential yards.

4. Encourage landscaping techniques that maximize noise absorption and minimize noise echoes.

5. Design paths that would encourage users to move through the trail system.

6. Develop enforceable design guidelines for creek-side development including standards for noise and lighting (i.e. low level and low emitting lighting, shielding of light glare/spill).

7. Control the hours of operation of public use areas.

8. Enforce existing municipal, County, and Federal codes along the bike path and adjacent properties.

9. Enhance Ballona Creek as an amenity for people who already use, live, or work near the bike path.

Public Safety and Maintenance

1. Develop a maintenance and safety program to assure the health and safety of Ballona Creek and Trail users and adjacent residents.

2. Coordinate and correct fragmentation of jurisdictional responsibility such as policing, graffiti control, homelessness, and maintenance.

Aesthetics and Environment

1. Create environments that will enhance both the scenic beauty of Ballona Creek and the property values of nearby residents and businesses.

2. Spur the low impact revitalization of creek-side commercial and industrial properties and residential improvements towards beautification.

3. Improve the general condition and appearance of Ballona Creek and trail by eliminating dilapidated conditions and devising consistent standards for creek-side fencing, safety lighting, way-finding, landscaping, and guard rails.

4. Provide suitable landscaping (i.e. native plants for certain areas, drought tolerant, or low maintenance) along the bike path and both sides of the channel.

5. Improve water quality in Ballona Creek.

6. Provide attractive signage for the Ballona Creek and Trail denoting Coastal Access.

Recreation and Use Potential

1. Provide a linkage and land-bridge connection to the Baldwin Hills Park area.

2. Provide a system of way-finding to better and more safely connect with various open space areas and parks such as Syd Kronenthal Park, Lindberg Park, Slauson Park, etc. via the trail system.

3. Seek to link the Ballona Creek bike path to other bikeway circulation systems in Culver City such as Culver Boulevard, MTA Exposition right of way and Downtown Culver City.

4. Provide trails that are ADA accessible.

Financial Resources

1. Devise a cohesive operations and maintenance strategy for Ballona Creek that does not cost the City of Culver City any more than it does today.

2. Ensure that improvements made to Ballona Creek and the trail system are funded through outside grants sources with minimal or no matching grants.

Study Process

1. Ensure that the plans for Ballona Creek are in the best interests of Culver City and its citizens.

3.2.7. Downtown Culver City: Design Guidelines

The Culver City Redevelopment Agency prepared the Downtown Design Guidelines to influence design of future development in Downtown. This document intends to "encourage and enhance a pedestrian friendly" Downtown by favoring businesses that support pedestrian use above others that may create an uncomfortable atmosphere for pedestrians. The Guidelines give preference to business types that typically do not result in higher levels of crime.



Culver Boulevard & Cardiff Ave crosswalk

This document details pedestrian access to businesses and parking, including City oversight to ensure access for persons with limited mobility. Downtown Culver City fosters pedestrian travel because of the sidewalk environment. Sidewalks are wide and have rest areas with storefronts that are attractive and inviting.

According to the Downtown Plan, Culver Boulevard is to be the "Pedestrian Street" with human-scale features including tree canopies, gardens, benches, kiosks, artwork, widened sidewalks, etc. These amenities contrast to Washington Boulevard, which has a designation as an auto corridor and favors motor vehicle use.

3.2.8. Outdoor Dining Standards and Procedures on the Public Right-of-Way



Outdoor dining areas contribute to a dynamic pedestrian environment

Downtown Culver City and Sepulveda Boulevard south of Culver Boulevard are popular destinations for shopping and dining. Culver City updated its Outdoor Dining Standards in 2009 in conjunction with the development of the Downtown Culver City Design Guidelines (**Section 3.2.7.**). Many of the Downtown restaurants offer outdoor seating. The popularity and the demand for expansion of restaurants' outdoor seating have the potential to encroach into the public right-of-way. In order to prevent this conflict, the City created Outdoor Dining Standards. The following standards are not a comprehensive list of the Design Guidelines, but instead include only the most pertinent to the BPMP.

ADA Compliance

Outdoor Dining Standards (ODS) require that seating and dining areas leave an ADA compliant passageway at least four feet wide. These standards protect the rights of pedestrians while allowing for outdoor seating to contribute to the vibrancy of the pedestrian environment.

Barriers

Barriers clearly define eating areas and distinguish boundaries. Barrier height is regulated and barriers cannot be draped or connected with materials that prevent pedestrians from seeing into the areas. Visual permeability is a key component to an inviting environment for pedestrians.

Landscaping

The ODS closely regulate the use of landscaping. The ODS encourages the use of landscaping as a barrier – greatly contributing to the attractiveness of the pedestrian environment. the ODS also prevents landscaping from infringing on the public right-of-way by imposing similar height and other restrictions to landcaping as to other types of barriers.

Standards of Operation

The ODS outline the Standards of Operation, which put the responsibility of sidewalk upkeep on the restaurants. The constant maintenance provided by restaurants enhances the pedestrian environment by providing a clean, attractive sidewalk.

3.3. Existing and Potential Bicycle Commuters

This section presents an estimate for the current and potential number of bicycle commuters in Culver City. 2000 Census data, in combination with national commuting statistics from the 2001 National Household Travel Survey (NHTS) and EPA estimates of standard emissions rates for motor vehicles, give a rough projection of potential future bicycle ridership in Culver City, along with trip reduction and air quality benefits (**Table 3-5**).

Calculations are included in this Plan to meet Caltrans Bicycle Transportation Account (BTA) requirements to provide "the estimated number of existing bicycle commuters in the Plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the Plan." BTA compliance is important to Culver City's bicycle plan in order to grant proposed projects eligibility for funding from the State of California's BTA (approximately $7.2M, annually).

According to the NHTS, the average work commute time in Culver City has remained close to 20 minutes since 1983. Averaging all modes, the commute time in 2001 was 23 minutes. Assuming an average speed of 10 miles per hour, a cyclist traveling for 23 minutes covers approximately four miles, which would be equivalent to a 9-minute motor vehicle trip (traveling at about 30 mph).

Table 3-4, which uses US Census data, shows that 1,544 Culver City residents (about 8%) had a commute time of 9 minutes or less in 2000. Subtracting those residents that already walk or bike to work (819), we find that 725 Culver City residents could potentially convert their short (9-minute or less) commute trip from a vehicle trip into a bicycle trip.

Table 3-4: Journey to Work Data

Current Commute of 9 min or Less	Already Walk or Bike to Work	Potential Bicycle Commuters
1,544	819	725

Source: U.S. Census 2000

This number represents the minimum number of people who could already change to bicycling for their commute. With the completion of the Exposition Light Rail Transit Project and supplemental bicycling facilities and programs, the number could potentially be much higher. Additionally, Census figures only represent the commuter behavior of Culver City residents. The estimate does not include commuters into, or through, Culver City by people who live elsewhere.

The following pages (**Table 3.5** and **Map 3.2**) provide valuable information about the benefits of bicycle commuting on the environment and land use in Culver City. Their inclusion in this Plan is one component of State BTA compliance.

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Table 3-5: Culver City Trip Reduction and Air Quality Benefits

AIR QUALITY BENEFITS MODEL - BICYCLE

Existing Commuting Statistics

Variable	Figure	Source
Existing study area population	38816.00	2000 Census, STF3, P1.
Existing employed population	19835.00	2000 Census, STF3, P30.
Existing bike-to-work mode share	0.01	2000 Census, STF3, P30.
Existing number of bike-to-work commuters	119.01	Employed persons multiplied by walk-to-work mode share
Existing work-at-home mode share	0.04	2000 Census, STF3, P30.
Existing number of work-at-home bike commuters	436.37	Assumes 50% of population working at home makes at least one daily bicycle trip
Existing school children, ages 6-14 (grades K-8)	4504.00	2000 Census, STF3, P8.
Existing school children bicycling mode share	0.02	National Safe Routes to School surveys, 2003.
Existing school children bike commuters	90.08	School children population multiplied by school children bike mode share
Existing number of college students in study area	2865.00	Full-time undergradate and graduate student population in study area
Existing estimated college bicycling mode share	0.10	Review of bicycle commute share in seven unversity communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Existing college bike commuters	286.50	College student population multiplied by college student bicycling mode share
Existing total number of bike commuters	931.96	Total bike-to-work, school, college and utilitarian bike trips. Does not include recreation.
Total daily walking trips	1863.92	Total bicycle commuters x 2 (for round trips)

Existing Vehicle Trips and Miles Reduction

Reduced Vehicle Trips per Weekday	662.31	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	172864.16	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	4964.32	Assumes average round trip travel length of 8 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	1295687.94	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

Existing Air Quality Benefits

Reduced PM10 (tons/weekday)	91.34	Daily mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/weekday)	2476.20	Daily mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/weekday)	360.41	Daily mileage reduction multiplied by 0.0726 tons per reduced mile
Reduced PM10 (tons/year)	23840.66	Yearly mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/year)	646289.14	Yearly mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/year)	94066.94	Yearly mileage reduction multiplied by 0.0726 tons per reduced mile

Future Commuting Statistics

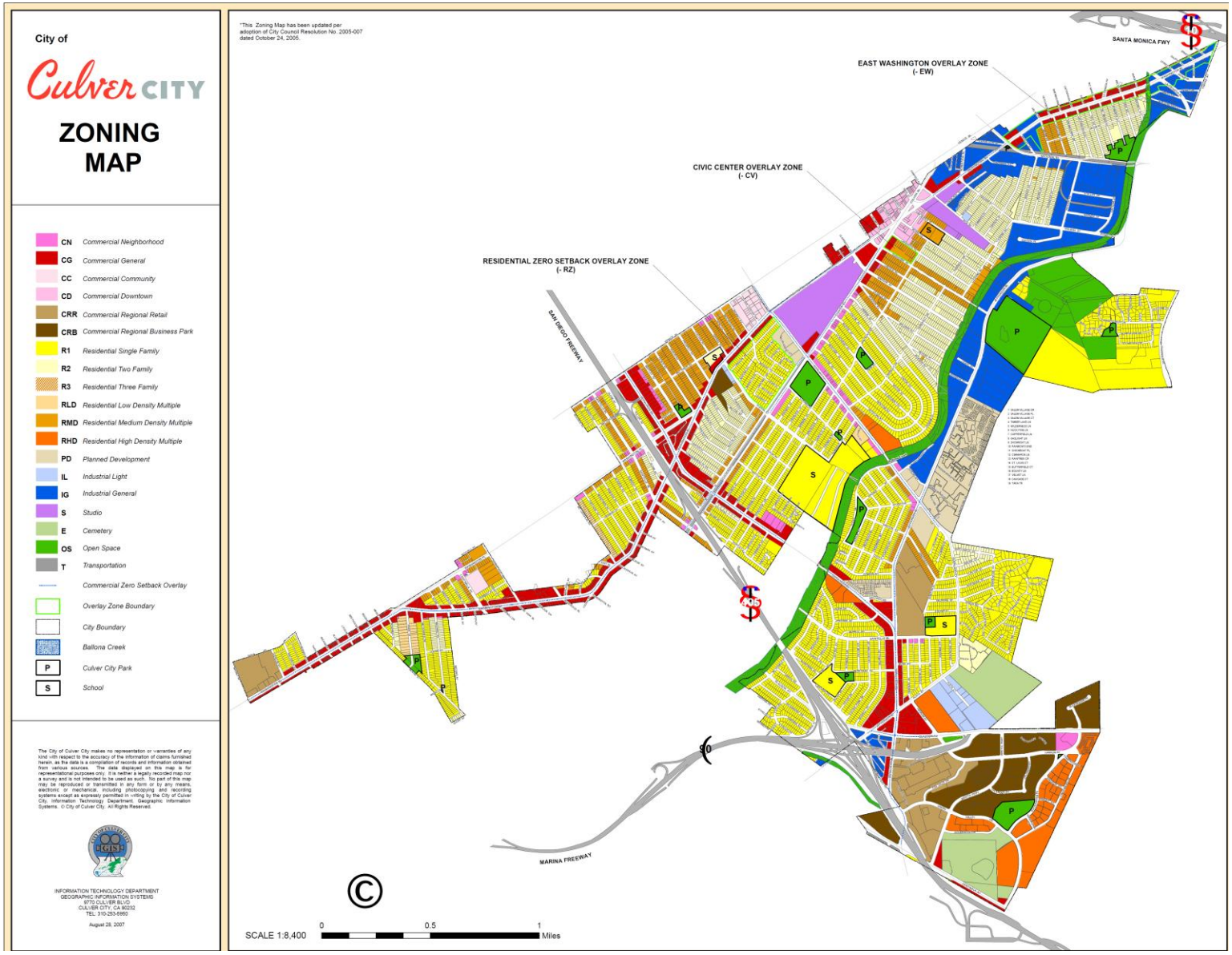
Variable	Figure	Source
Future study area population	39994.00	Estimate this number based on historic population growth (or decline) trends
Future employed population	20133.00	Estimate this number based on historic employment growth (or decline) trends
Future bike-to-work mode share	0.02	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future number of bike-to-work commuters	302.00	Employed persons multiplied by bike-to-work mode share
Future work-at-home mode share	0.04	Estimate this number based on historic work-at-home population growth (or decline) trends
Future number of work-at-home bike commuters	442.93	Assumes 50% of population working at home makes at least one daily bicycle trip. Change the formula in this cell if the percentage is expected to increase or decrease
Future school children, ages 6-14 (grades K-8)	4572.00	Estimate this number based on historic population growth (or decline) trends
Future school children bicycling mode share	0.02	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future school children bike commuters	91.44	School children population multiplied by school children bicycling mode share
Future number of college students in study area	2908.00	Estimate this number based on historic college student population growth (or decline) trends. Universities may also have enrollment projections
Future estimated college bicycling mode share	0.10	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future college bike commuters	290.80	College student population multiplied by college student bicycling mode share
Future total number of bicycle commuters	1127.16	Total bike-to-work, school, college and utilitarian walking trips. Does not include recreation.
Future total daily walking trips	2254.32	Total walk commuters x 2 (for round trips)

Future Vehicle Trips and Miles Reduction

Reduced Vehicle Trips per Weekday	804.54	Assumes 73% of walking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	209984.82	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	931.52	Assumes average round trip travel length of 1.2 miles for adults/college students and 0.5 mile for schoolchildren
Reduced Vehicle Miles per Year	243127.55	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

Future Air Quality Benefits

Reduced PM10 (tons/weekday)	17.14	Daily mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/weekday)	464.64	Daily mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/weekday)	67.63	Daily mileage reduction multiplied by 0.0726 tons per reduced mile



Map 3.2: Culver City Land Use

3.4. Bicycle Facilities

This section describes the facilities available to bicyclists in Culver City, primarily the Culver Boulevard Bike Path and the Venice Boulevard Bike Lane. A separate portion of in this section specifically discusses the Ballona Creek Bike Path.

3.4.1. Culver Boulevard Bike Path

The Culver Boulevard Bike Path passes through both Culver City and Los Angeles. In Culver City, it runs from the Culver City border at Sawtelle Boulevard to Elenda Street (approximately 0.7 miles).

The Culver Boulevard Bike Path is different from other Class I facilities in that it runs on the raised median of a major arterial road (Culver Boulevard). It is elevated 2 to 3 feet above street level but drops down to grade level when crossing intersections.

Design & Layout

The Culver Boulevard Bike Path is a popular facility in Culver City. Part of its popularity comes from its ability to serve a variety of users. In addition to being a bike path, it also features an adjacent non-paved trail for walking, attractive landscaping, public art, benches, and other amenities that invite and encourage usage.



Culver Boulevard Bike Path
(Example of incorrect pavement marking by Caltrans)

Intersections

Unlike the Ballona Creek Bike Path, the Culver Boulevard Bike Path requires bicyclists and pedestrians to yield to traffic signals at intersections. The Culver Boulevard Bike Path crosses heavily used arterials including Sepulveda Boulevard, Sawtelle Boulevard and on-ramps to the San Diego I-405 Freeway.

As noted previously, CCMC §7.04.245 precludes bicyclists from riding on a street that provides an adjacent bicycle path. As it applies to the Culver Boulevard Bike Path, the code makes riding a bicycle illegal both north or south on Culver Boulevard where the Bike Path is present if not on the path itself. This makes access to the residential and commercial corridors difficult for bicyclists who are not boarding or departing the path at one of its entrances or exits (usually at intersections).

3.4.2. Venice Boulevard Bike Lane

The Venice Boulevard Class II Bike Lane is a critical component of the regional bicycle network. As Los Angeles County's longest bike lane, the Venice Boulevard Bike Lane provides extensive access to bicyclists coming to and from Culver City. The lane itself runs continuously for over nine miles from Crenshaw Boulevard, east to Venice Way. The one-mile segment of the Venice Boulevard Bike Lane within Culver City boundaries runs east from Bledsoe Avenue to Overland Avenue. Within these limits, only the eastbound section of the lane is in Culver City.

In many cases, the bike lane runs adjacent to street parking. Bicyclists attempting to avoid being "doored" (when a motor vehicle door opens immediately in front of a bicyclist) opt to ride on the left side of the lane, closer to motor vehicle traffic. Because Venice Boulevard features a significant amount of commercial activity, bicyclists must be constantly aware of motor vehicles pulling out of cross-streets, driveways, and from between parked motor vehicles, as well as individuals exiting parallel parking spaces.

Despite the issues that face the Venice Boulevard Bike Lane, it remains a valuable part of the region's and Culver City's bicycle infrastructure.

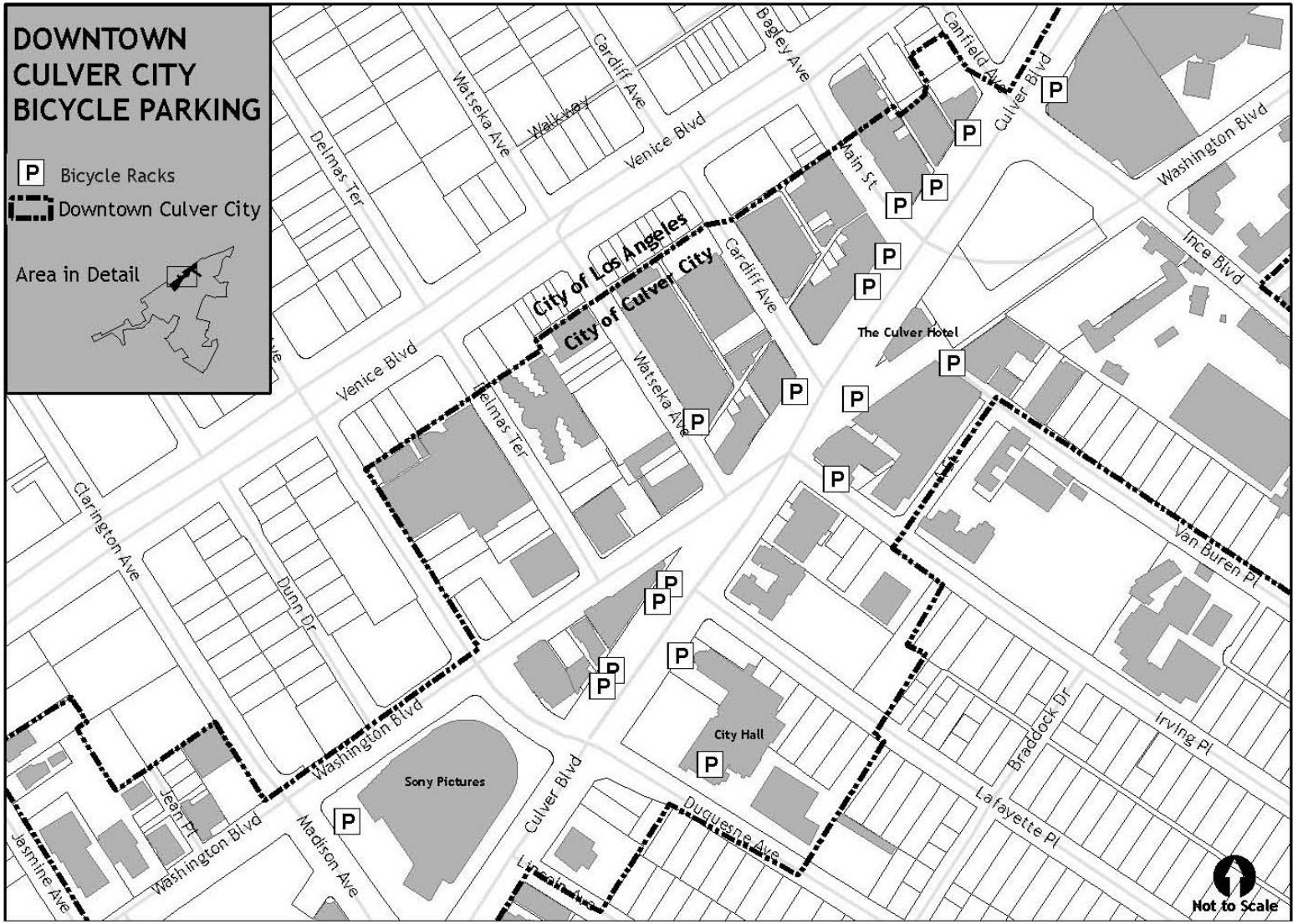
3.4.3. Existing Bicycle Parking Facilities (Downtown)

Culver City has bicycle parking facilities available throughout the City. Downtown is one of Culver City's most popular attractions and trip generators. As such, its quality and stock of bicycle parking is important to analyze in supporting future bicycle trips. The following map displays the location of bicycle parking available in Downtown Culver City.



Venice Boulevard Bike Lane

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Source: Culver City Pedestrian Development Agency

Map 3.3: Downtown Culver City Bicycle Parking Locations

3.5. Ballona Creek Bike Path

The Ballona Creek Bike Path is the backbone of Culver City's bicycle infrastructure. Spanning approximately 3.25 miles, its western terminus makes the prime connection between Culver City and communities to the west, including Venice, Marina del Rey, Playa del Rey, and the Marvin Braude Beach Path. Its original purpose was as a bike path, but now serves as a multi-modal path.



Ballona Creek Path at Sepulveda Boulevard

Ballona Creek Bike Path is the primary off-street path in the City facilitating utilitarian (e.g. commuting or errand-running) as well as non-utilitarian (e.g. exercising or recreational) trips. Students use the path for school, and joggers and bicyclists use the path for all purposes. The Path also provides regional access to the beach and other Los Angeles bicycle facilities.

3.5.1. Access

The access points to the Ballona Creek Bike Path within Culver City are:

- National Boulevard (eastern end)
- Duquesne Avenue
- Overland Avenue
- Sepulveda Boulevard



Ballona Creek Path at Overland Boulevard

Access to/from the Ballona Creek Bike Path has been a sensitive point of discussion between the path's users and the adjacent residential community. Path users see increased access as a safety improvement and a crime deterrent because it may increase pathway use and keep more eyes on the area. Residents see reduced access as a crime deterrent because it will prevent access to neighborhoods.

Public comments frequently request increasing access to the Ballona Creek Bike Path. While there are no recommendations to increase residential access to the Ballona Creek Bike Path at this time, Higuera Street is a recommended new access point. A study is also exploring access improvements in the tri-school area (Culver City High School, Culver City Middle School, and Farragut Elementary School) to encourage more children to access school by walking or bicycling. Both of these access points will require additional study and individual plans before funding is secured and projects are brought to fruition.

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3.5.2. Design

The location and design of the Ballona Creek Bike Path make it a popular facility, but also reveal some limitations and areas in need of improvement. The Ballona Creek Bike Path enables uninterrupted travel between the eastern edge of Culver City at National Boulevard and the beach. All crossings are grade-separated so cyclists do not have to stop at intersections. However, some concerns regarding criminal activity has arisen as a result of individuals loitering beneath poorly lit underpasses. Underpasses may also present visibility problems to those using the Path. Additional lighting would improve visibility for bicyclists, joggers, pedestrians, etc. and discourage individuals from loitering beneath the underpasses.

3.5.3. Signage

Signage is an often over-looked, but important component of a complete bike path. Signage serves to orient users on the path, and to alert individuals to path rules, restrictions, and neighboring amenities. Much like highway signage, path signs are helpful for instructing individuals on access points for reaching popular destinations within the City, and towards other bicycle facilities in the network. The City is working with other agencies to complete various striping and signage projects along the path in the upcoming months (2010/2011). Culver City will be developing a citywide signage plan that includes special signage for use on the Ballona Creek Bike Path. The City will install stencils that will alert users on path etiquette and methods to share this valuable public resource.

3.5.4. Maintenance

Maintenance of the Ballona Creek Bike Path plays a considerable role in the usefulness and enjoyment of its users. Maintenance concerns for the Ballona Creek Bike Path include:

- Landscaping/grooming
- Clearing obstructions
- Fence/rail repair
- Pavement repair
- Trash collection
- Graffiti



Maintenance concerns along the Ballona Creek Bike Path: A fallen tree in the City of Los Angeles

The photo at right displays a portion of the Ballona Creek Bike Path that is outside of Culver City boundaries, but is included to show the types of maintenance issues found along the path. Proper/timely maintenance ensures optimal safety and encourages high levels of use. When maintenance is less timely, it discourages people from using the Path and can lead to a less inviting environment.

3.5.5. Personal Safety

Many participants in the BPMP process expressed concern about safety along the Ballona Creek Bike Path. Reports of assaults on bicyclists using the Path have influenced the bicycling community's perception of the Path. Many people feel that the Path is neglected and unsafe. One way to enhance the impression of safety is

through regular patrols and adequate lighting. For specific recommendations on lighting, refer to the Design Guide, **Appendix 1**.

Other recommendations to enhance the user experience and safety of the Ballona Creek Bike Path are mileage markers, overcrossing signage, and entrance street signage. Mileage markers and street identification can be a combination of pavement markings and sign posts to indicate path users' distance travelled while on the path and location. Mileage markers and street identification signage also serve to orient path users to their location. This can be helpful in the event of an emergency for directing first-responders to accurate locations along the path.

3.5.6. Improvement Zone

The Ballona Creek Bike Path is undergoing study for potential improvements to pedestrian and bicycling conditions. Study is also underway for a separate walking path along the south side of the creek between Higuera Street and Overland Avenue.

3.6. Existing Pedestrian Areas

This section details existing pedestrian areas in Culver City. While this section focuses primarily on pedestrian access and movement, it is important to note that bicycle access to these areas is important as well. Major arterial roads with high traffic volumes typically serve commercial areas. Existing conditions make pedestrian areas difficult to access by bicycle, making the need to implement an extensive bicycle network an important issue for both pedestrians and bicycles.

3.6.1. Downtown

Downtown Culver City has developed into a major regional destination, complete with fine dining, a Cineplex, live theater, and music venues. Small business façade improvement grants assisted in the area's renovation and created an aesthetically pleasing setting with wide promenade sidewalks, public art, and an abundance of street furniture (including planters and benches).



Downtown Culver City

Overall, as the political and cultural hub of Culver City, Downtown sets the City standards for pedestrian friendly design. Future projects will continue to enhance the pedestrian friendliness of Downtown. For example, the pedestrian plaza at the intersection of Main Street, Washington Boulevard, and Culver Boulevard promises to contribute greatly to pedestrian mobility.

As the Expo Line stop brings rail transit to Culver City, planners must take careful consideration to ensure that there is pedestrian connectivity between the station, and commercial areas Downtown, Hayden Tract, and the Helms Bakery district.

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3.6.2. Major Employment and Commercial Centers

Some major employers in Culver City include Sony Studios, the Culver Studios, and Brotman Medical Center. According to the 2000 census, over 21,000 of Culver City's population aged 16 and older have a job. Culver City's over-16 population at the time was approximately 31,000. Census results report that nearly 75% of this same population drive to work alone.

Studio lots tend to be large and employees typically walk around the lots. Providing bicycle and pedestrian connections could help to encourage non-motorized trips that connect into the City. Sony Studios uses a fleet of bicycles for travel in the back lot and between facilities.

3.6.3. Parks and Open Space

Culver City has a number of parks and open spaces, including a skate park and a dog park. These areas are popular places for walking and bicycle trips. The following are City parks:

- Blair Hills Park
- Blanco Park
- The Boneyard (Dog Park)
- Carlson Park
- Coombs Park
- Culver City Park
- Culver City Skate Park
- Culver West Alexander Park El Marino Park
- Fox Hills Park
- Syd Kronenthal Park
- Lindberg Park
- Tellefson Park
- Veteran's Park



Culver City's neighborhood parks are frequently visited by pedestrians and bicyclists

3.6.4. Retail Centers

Major retail centers in Culver City include:

- Downtown
- *Ross*
- *Target*
- *Costco*
- Studio Village Shopping Center
- Westfield Culver City
- Culver Center

Each of these areas features vast parking lots, encouraging motor vehicle-trips rather than bicycle and pedestrian trips. While driving can facilitate carrying larger loads, improved bicycle and pedestrian access can increase accessibility for service-oriented trips that do not require heavy-duty hauling, thus increasing frequency of such trips.

Pedestrian oriented retail centers vary greatly from motor vehicle oriented retail centers. At pedestrian oriented retail centers, motor vehicle parking is often less convenient and further from the desired destination. Pedestrian oriented areas (like Downtown) have benches, trees, and street furniture that encourage active use. They allow individuals to park in one place, and then travel easily from one destination to the next on foot. Auto-oriented retail centers (e.g. *Costco*, *Target/Bed Bath & Beyond*, and *Ross* on Jefferson Boulevard, etc.) provide ample room for motor vehicle parking at the expense of pedestrian convenience.

3.6.5. Commercial Corridors

Bicycle and pedestrian connectivity to Culver City's commercial corridors has great potential to reduce motor vehicle trips. Culver City's commercial corridors often have access to adjacent residential areas. Corridors such as Sepulveda Boulevard, Washington Boulevard and Culver Boulevard feature active commercial stretches along the main thoroughfare with residential properties one block away. Depending on the amenities, commercial corridors can meet the shopping, entertainment, and business needs of its immediate neighbors. Sidewalk and road quality, safe, well-lit crossing facilities at major intersections, and adequate bicycle parking encourage local residents to walk or bike to local corridors in lieu of making motor vehicle trips.

3.6.6. Schools

Schools are major pedestrian areas. Culver City has one public high school, one public middle school, five public elementary schools, several other private schools, and Antioch College. Additionally, while West Los Angeles College is not within Culver City, affiliated faculty, staff and students must access the college using Culver City streets.

Bicycle and pedestrian improvements should provide students with safe options to walk or bike to school and nearby support facilities, such as libraries and athletic fields, from their homes. Improvements should seek to insulate bicyclists and pedestrians from common road hazards, but not isolate them from the surrounding environment.

Providing schools with non-motorized transportation alternatives is also important in developing good habits with children so that they regard walking and bicycling as viable means of transportation, which can lead to lower rates of obesity-related health problems.



Farragut Drive Pedestrian Pathway

3.6.7. Residential Areas

Culver City has an extensive network of residential roads that provide a comfortable environment for bicycling and walking. The residential network, though not a perfect grid, provides key connections to both local

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commercial districts and citywide destinations.

Public comment points to Farragut Drive as one of Culver City's more challenging facilities. The City recently updated the pathway by removing two poles at the access gate between Jackson Avenue and Jasmine Avenue. The pedestrian pathway (located on Farragut) now allows both pedestrian and bicycle traffic to continue along Farragut between Jackson and Jasmine, but could benefit from further access improvements. Traffic bollards could provide the same restrictive qualities while expanding pedestrian access (see Bicycle Project 3: Farragut Drive/Franklin Avenue: Duquesne Avenue to Elenda Street). Pedestrian improvements in the residential areas of Culver City could provide greater connectivity to transit and schools, while providing leisure and recreational opportunities.

3.6.8. Existing Support Facilities and Programs

Much of the existing bicycle parking in Culver City does not meet current best standards of bike rack design. Some racks do not support the frame of the bicycle because they only allow one wheel to connect to the rack; bicyclists commonly refer to these single-point of support racks as "wheel bender" racks. This lack of frame support allows unattended bicycles to knock over easily, leading to damage to the bicycle.

In addition to poorly supporting bicycles, single-point of support racks also do not allow the user to properly secure their bicycle. Because the design only allows one wheel to connect to the rack, the rest of the bicycle is susceptible to theft. The Design Guide **(Appendix 1)** contains a more detailed discussion of bicycle rack standards.

The bicycle racks installed in the Downtown area allow greater bicycle security. The racks in Downtown Culver City have a compact design that provides a safer structure for bicyclists. These bicycle racks are also more space efficient than the single-point of support bicycle racks by providing equal or greater bicycle storage capacity while taking up significantly less space when vacant. Refer to bicycle parking guide in Appendix 1 for guidance on bicycle parking standards.

3.6.9. Multi-modal Transportation Options

Culver City's own bus line serves as the City's primary public transit service. The City has supplemental service provided by Metro and the City of Santa Monica's Big Blue Bus services. Culver City Bus, Metro and Big Blue Bus all have two-bike capacity racks on the front of their buses. For bicyclists to use the racks on the buses, they must be able to mount/dismount their bike from the racks without assistance from the bus operator. The racks on buses are frequently full. In this event, patrons must wait for the next available bus with an open rack. Culver City Bus does not allow bicycles aboard the bus itself. Metro buses have a slightly more flexible policy when it comes to allowing bicycles on board the bus. Metro policy concerning bicycles on board states that:

> "Operators may allow a customer to bring a bicycle on board the last bus on a route, if the headway is one hour, if the bike rack is full or defective, or if the bus is not equipped with a bike rack. The bicycle must not block the doors or the aisle. In the event that the bus is at full customer capacity and bringing the bicycle aboard is not reasonably safe, contact Bus Operations Control Center (BOC) immediately."

Aside from buses, Culver City residents will have a new form of mass transit upon completion of Metro's Expo rail line. The Expo Line will serve Culver City, connecting to Downtown Los Angeles. Plans for the line also include a western extension terminating in Santa Monica. Metro allows bicycles on board rail cars within specially designated sections of the car.



Westfield Mall Transit Center

Most Metro stations have bicycle racks and lockers for parking bicycles. Metro is considering bicyclist/pedestrian connectivity and facilities as it develops detailed plans for the Expo Station. There are presently designs for a Clean Mobility Center at the Culver City Station. The Clean Mobility Center may provide basic support facilities to individuals bicycling or commuting by mass transit. The center may have bicycle racks, changing facilities and other amenities like showers, a bicycle shop, and overnight storage.

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4. Needs Analysis

This chapter is the product of general, non-motorized planning experience and various methods of local data collection. It describes the needs of pedestrians and bicyclists in Culver City through the following tasks.



Collision Statistics & Analysis

This report analyzed the relative safety of bicyclists and pedestrians in Culver City using bicycle and pedestrian collision data. The clustering of collisions at specific points in Culver City influenced count location selection.

Culver City Bicycle and Pedestrian Initiative Survey

The Culver City Bicycle and Pedestrian Initiative website (ccwalkbike.org) featured an online survey that asked questions about general patterns of bicycling and walking behavior. The survey also asked respondents to list their favorite areas to walk and bicycle in Culver City, as well as areas that need improvement. The survey data brings suggestions from the public to the BPMP and helps ensure greater public support during the process.

Bicycle & Pedestrian Counts

The project team and community volunteers conducted bicycle and pedestrian counts. These counts serve as the baseline estimate for non-motorized transportation levels in Culver City. The collected count data answer the question, "where and when do people walk/bike?" The pedestrian counts did not determine if pedestrians arrived at the survey point by driving or bicycling. The count data will also serve as a benchmark for activity before the implementation of programs and infrastructure.

Bicycle & Pedestrian Audits

Project staff and volunteers conducted bicycle and pedestrian audits at various locations around Culver City. The audits serve two functions:

1. To examine the present conditions facing Culver City bicyclists and pedestrians.
2. To educate the PAC and volunteers on different physical improvements and how they apply to specific areas of Culver City.

4.1. Bicyclist Types

Often the most outspoken bicyclists during the planning process are the most experienced. It is important to consider bicyclists of all skill levels in creating a bicycle plan. The skill level of the bicyclist greatly influences expected speeds and behavior. There are several systems of classification currently in use within the bicycle planning and engineering professions. These classifications can be helpful in understanding the characteristics and infrastructure preferences of different bicyclists. However, these classifications may change in type or proportion over time as infrastructure and culture evolve. Often times an instructional course can rapidly

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change a less confident bicyclist to one that comfortably and safely shares the roadway with vehicular traffic. Bicycle infrastructure should have plans and designs that accommodate as many user types as possible, with decisions for separate or parallel facilities based on providing a comfortable experience for the greatest number of bicyclists.

The following user types come from an excerpt from the 1999 AASHTO Guide for the Development of Bicycle Facilities:

> *"Although their physical dimensions may be relatively consistent, the skills, confidence and preferences of bicyclists vary dramatically. Some riders are confident riding anywhere they are legally allowed to operate and can negotiate busy and high speed roads that have few, if any, special accommodations for bicyclists. Most adult riders are less confident and prefer to use roadways with a more comfortable amount of operating space, perhaps with designated space for bicyclists, or shared-use paths that are away from motor vehicle traffic. Children may be confident riders and have excellent bicycle handling skills, but have yet to develop the traffic sense and experience of an everyday adult rider. All categories of rider require smooth riding surfaces with bicycle-compatible highway appurtenances, such as bicycle-safe drainage inlet grates.*
>
> *A 1994 report by the Federal Highway Administration used the following general categories of bicycle user types (A, B and C) to assist highway designers in determining the impact of different facility types and roadway conditions on bicyclists:*
>
> *Advanced or experienced riders are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic; however, they need sufficient operating space on the traveled way or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position.*
>
> *Basic or less confident adult riders may also be using their bicycles for transportation purposes, e.g., to get to the store or to visit friends, but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared-use paths and prefer designated facilities such as bicycle lanes or wide shoulder lanes on busier streets.*
>
> *Children, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community, such as schools, convenience stores and recreational facilities. Residential streets with low motor vehicle speeds, linked with shared-use paths and busier streets with well defined pavement markings between bicycles and motor vehicles can accommodate children without encouraging them to ride in the travel lane of major arterials."*

The AASHTO classifications above were the standard for at least 15 years, and can be helpful when assessing existing bicyclists. However, these classifications do not accurately describe all existing types of bicyclists, nor can they account for the population as a whole. For instance, they do not include potential bicyclists who are interested in riding, but feel that existing facilities are unsafe.

Supported by data collected nationally since 2006, planners developed alternative categories to address the Americans' 'varying attitudes' towards bicycling. According to this recent data, less than two percent of

Americans comprise a group of bicyclists who are '**Strong and Fearless**'. These bicyclists typically ride anywhere on any roadway regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections – even if shared with vehicles – over separate bicycle facilities such as bicycle paths. Approximately 13 percent fall under the category of '**Enthused & Confident**' bicyclists who are confident and mostly comfortable riding on all types of bicycle facilities but will usually prefer low traffic streets or multi-use pathways when available. These bicyclists may deviate from a more direct route in favor of a preferred facility type. This group includes all kinds of bicyclists including commuters, recreationalists, racers, and utilitarian bicyclists.

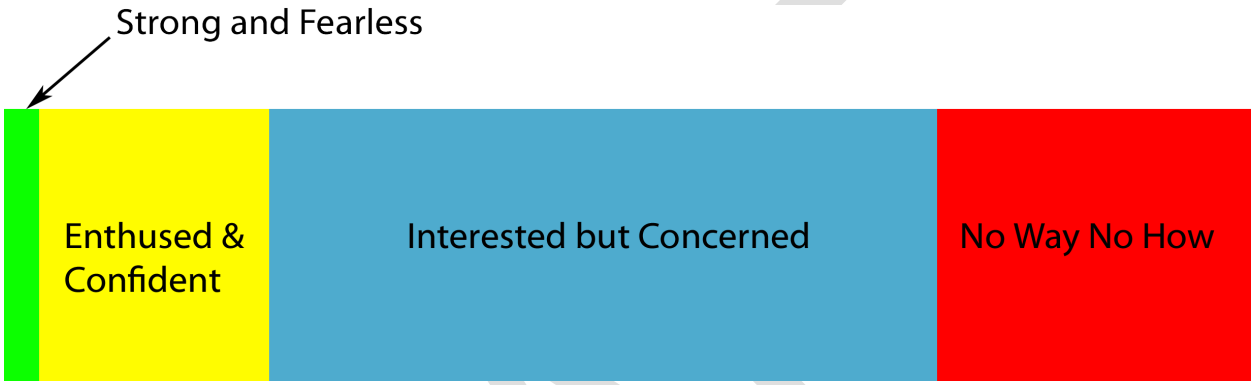


Figure 4.1: Bicyclist Types

The remainder of the American population does not currently ride a bicycle regularly. Approximately 60 percent of the population can be categorized as '**Interested but Concerned**' and represents bicyclists who typically only ride a bicycle on low traffic streets or bicycle paths under favorable conditions and weather. These infrequent or potential bicyclists perceive traffic and safety as significant barriers towards increased use of bicycling. These bicyclists may ride more regularly with encouragement, education and experience.

Approximately 25 percent of Americans are not bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually consider bicycling and may progress to one of the user types above. A significant portion of these people will never ride a bicycle under any circumstances.

4.2. Pedestrian Types

Like bicyclists, pedestrians vary greatly in habits, mobility, and skill. The BPMP addresses the needs of all types of pedestrians by providing amenities and designs that cater to pedestrians of all types. Pedestrians with different habits/needs include:

- The elderly
- Individuals with limited/impaired mobility
- Recreational pedestrians
- Children
- Persons using mobility enhancing devices (Segways, scooters, etc.)

Most individuals, at the very least, require a flat walking surface. Cracks in sidewalks, curbs with no ramps, and narrow or obstructed sidewalks all present serious limits to many of the individuals above. Ensuring American's with Disability Act (ADA) compliance on all sidewalks is a priority of this Plan.

In some cases, ADA compliance represents the minimal effort in ensuring mobility for all pedestrians. Pedestrian needs often go beyond curb ramps and a striped crosswalk. Crosswalks with extended crossing times/countdowns can greatly benefit pedestrians of all types. The BPMP uses a catalogue of improvements and recommendations to ensure that all Culver City residents can navigate their city on foot and at their leisure.

4.3. General Survey Analysis

Survey Results

The Culver City Bicycle and Pedestrian Initiative website (ccwalkbike.org) received over 170 responses to the survey advertised by City staff, PAC members, and public workshops.

Pedestrian Feedback

The survey asked respondents to list all purposes for which they choose walking as a mode of transportation. Respondents checked off all applicable activities. **Figure 4.2** presents the results.

In regards to work and school, the survey asked respondents about the frequency by which they commute via walking:

- 6% reported that they "always" commute by walking
- 13% reported that they "often" walk to work
- 12% state that they "seldom" walk for their commute

The remainder of respondents did not commute by walking.

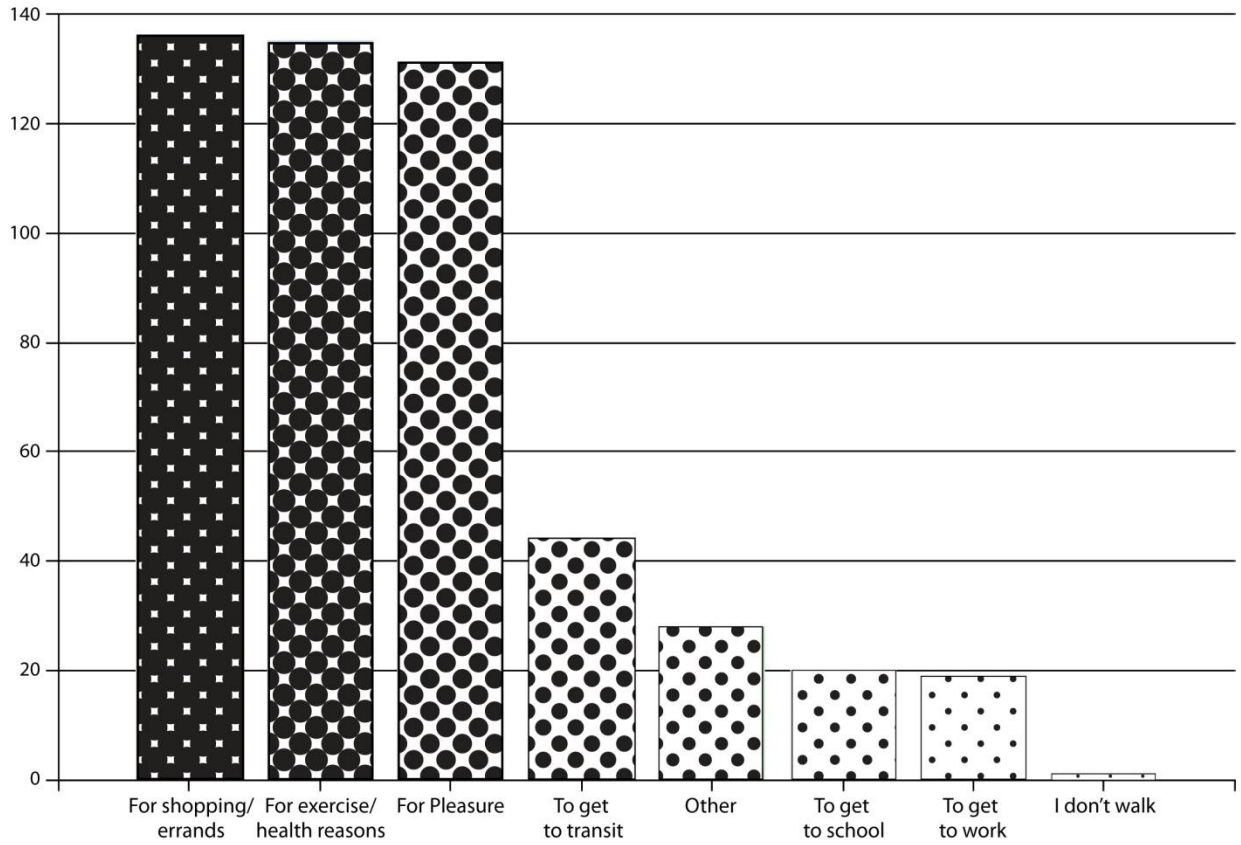


Figure 4.2: User Survey: Reasons for Walking

Furthermore, the survey asked people to list their favorite places to walk in Culver City.

- 50% indicated Downtown Culver City
- Other popular places included Carlson Park, Helms Bakery, Baldwin Hills, Ballona Creek, Westfield Culver City, *Target*, and local neighborhoods

The survey also asked respondents to name places where walking conditions could improve. The following are those ranked responses:

1. Downtown
2. Ballona Creek
3. Commercial Areas - Jefferson Boulevard, Culver Boulevard, Overland Avenue, Washington Boulevard, and Sepulveda Boulevard
4. Westfield Culver City

Many of the areas listed as needing improvements were also the most popular places to walk. Of the popular streets listed, many are major arterials. The survey shows that there is a demand for pedestrian accommodations along streets designed to be automobile friendly (often at the expense of pedestrian use).

Bicyclist Feedback

The survey asked respondents to mark how often they rode a bicycle in the last six months.

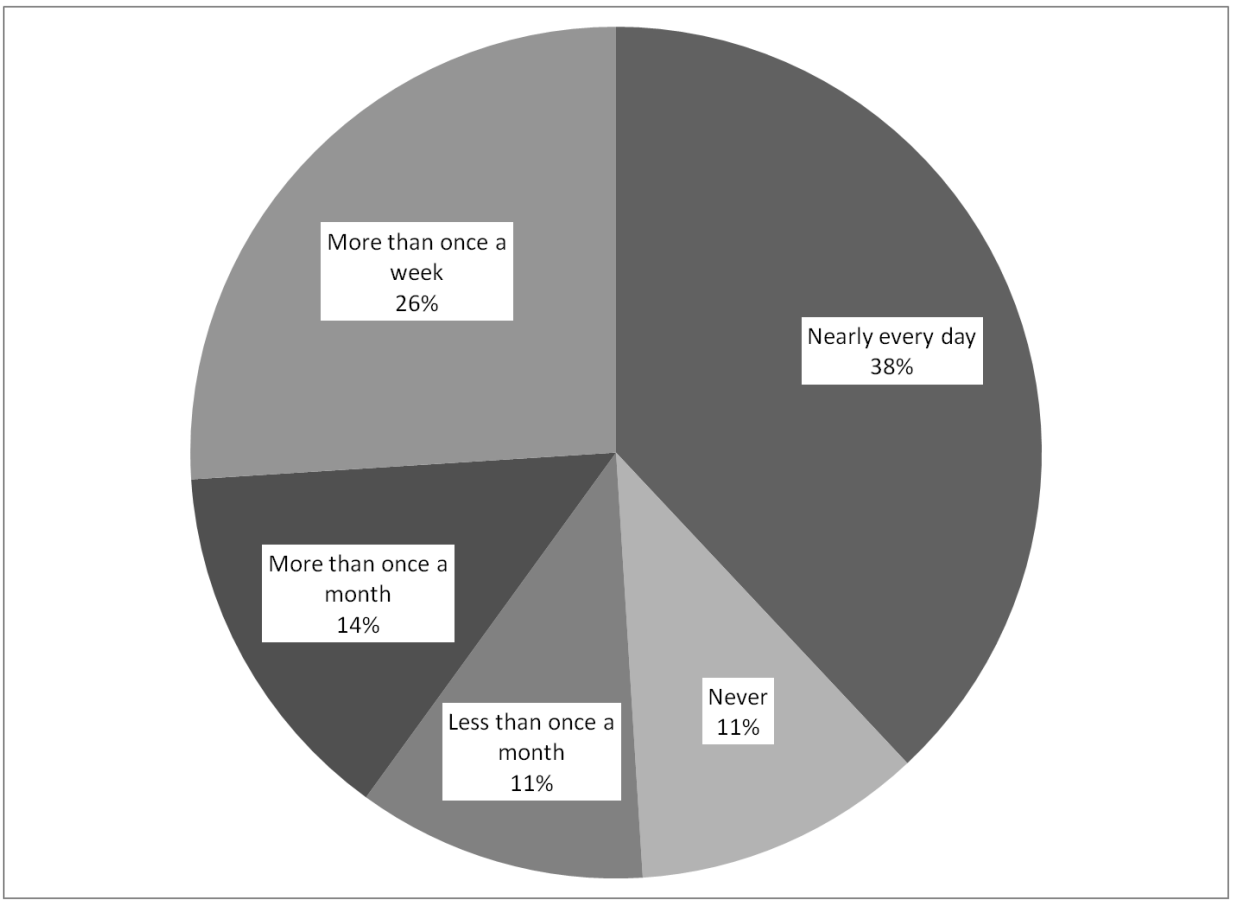


Figure 4.3: User Survey: Bicycle Riding Frequency

This data shows us that survey respondents tend to ride fairly regularly, with over 64% of respondents riding their bicycle at least once a week.

The survey asked respondents to rate their level of comfort when bicycling.

- 60% are extremely comfortable, biking on any street necessary to reach their destination
- 23% are moderately comfortable, preferring neighborhood streets and bike lanes
- 17% consider themselves "extremely cautious" (riding on sidewalks or bike paths)

There are various levels of proficiency and experience amongst bicyclists in a city. While it appears from the survey that most bicyclists are regular riders, the results are probably not representative because public involvement for bicycle and pedestrian planning tends to attract the "strong and fearless" category of bicyclist.

The survey asked respondents to list the reasons they bicycle. Beyond recreational riding, the survey shows high levels of utilitarian bicycling.

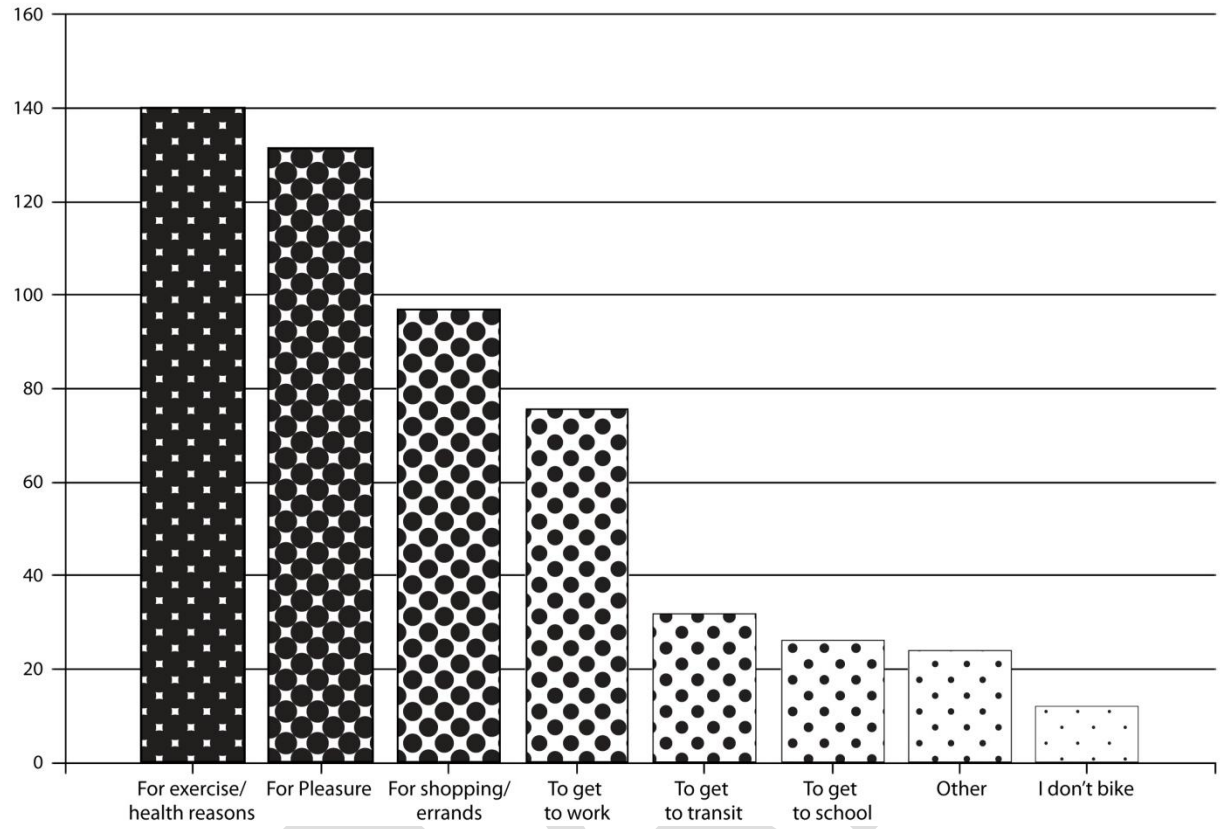


Figure 4.4: User Survey: Reasons for Bicycling

The survey asked people to rate the distance of their trip based on the purpose of the trip. The results show that people are likely to bicycle for errands at distances under two miles. The data also shows that trips six miles and up tend to be recreational in nature. This data is helpful when considering bicycle facilities aimed at various types of bicycle trips.

Some individuals identified certain barriers that need removal for bicycling to be a more accessible transportation option. The top three listed obstacles that prevent bicyclists from riding more often were:

- Too many motor vehicles drive too fast
- There are inadequate paths, lanes, or routes
- Drivers do not share the road

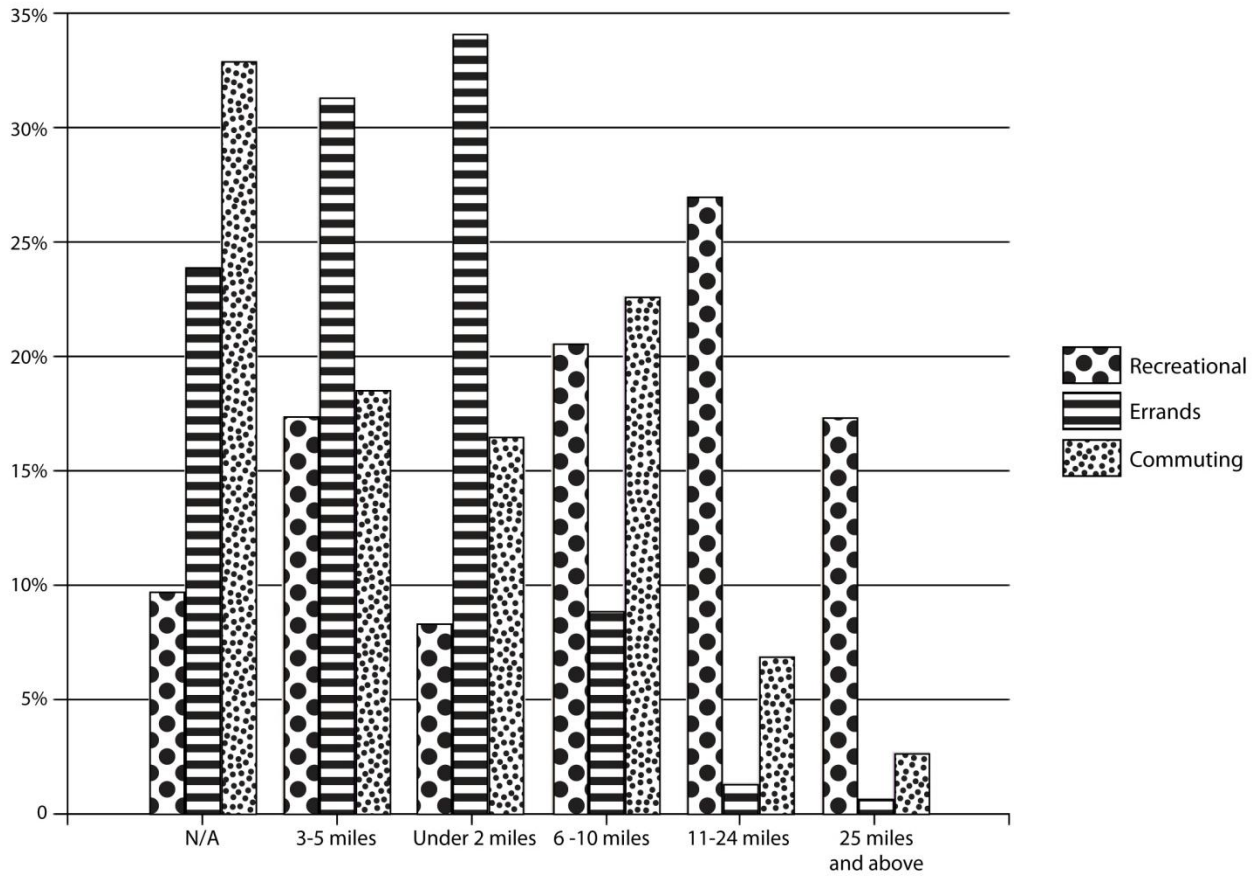


Figure 4.5: User Survey: Distance of Bicycle Trip vs. Purpose

Because the top concern among bicyclists was safety as it relates to motor vehicle speeds, the Plan recommends considering traffic calming on certain streets after they undergo traffic engineering analysis. To address other concerns mentioned in the survey, the Plan also identifies opportunities to install bicycle paths, lanes, routes, and other bicycle facilities to support greater levels of bicycling.

The survey asked bicyclists where they wanted to see improvements for bicycling in Culver City. The top five locations were:

1. Downtown
2. Culver Center Shopping Plaza
3. Westfield Culver City
4. Grocery Stores (*Ralphs*, *Trader Joe's*, etc.)
5. Sepulveda Boulevard

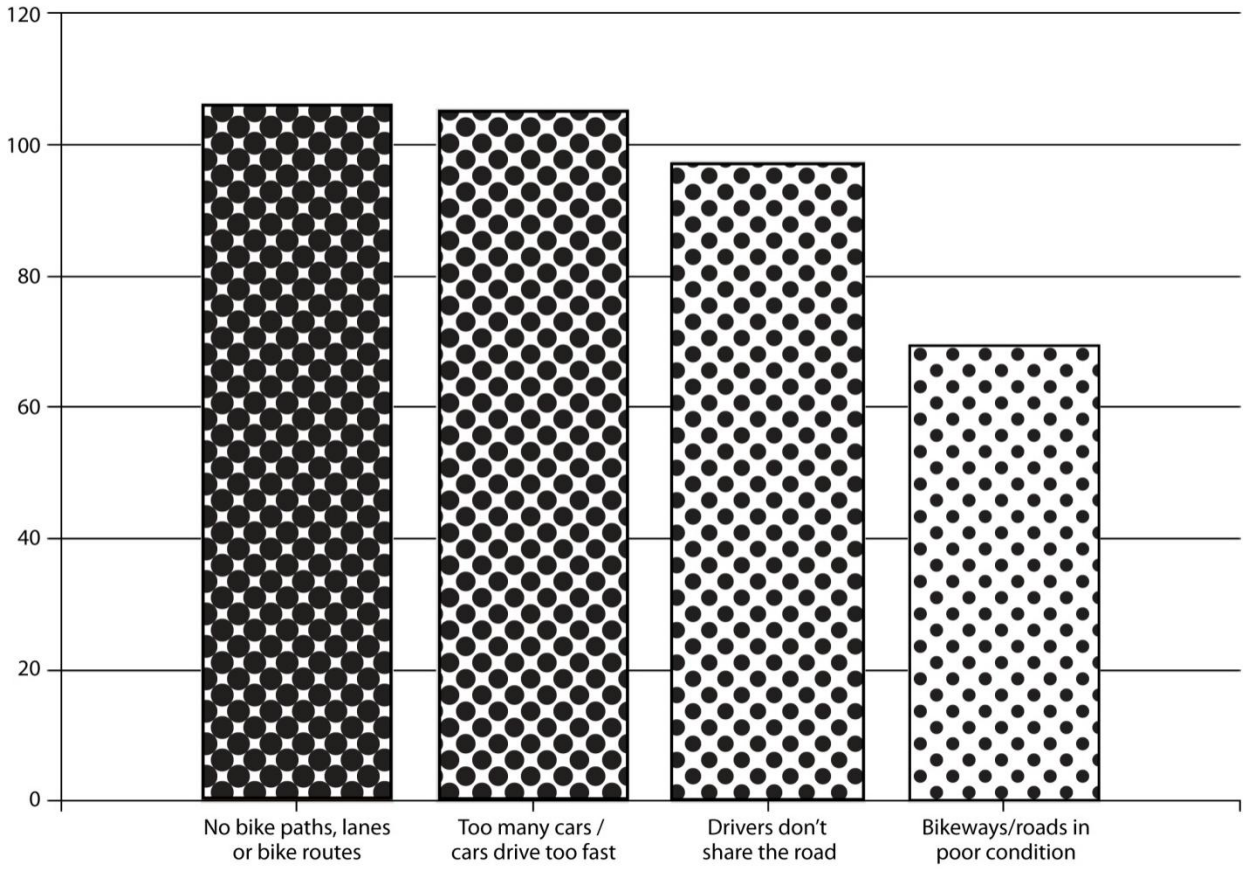


Figure 4.6: User Survey: Obstacles to Bicycling

Other popular areas included parks, schools, and the Helms Bakery area. Many of the destinations identified in the survey are where people go to work, shop, or conduct errands. These trip types often occur using motor vehicles. For residents who live within a comfortable distance to these destinations, improving bicycle facility access and increasing the number of facilities will help individuals replace motor vehicle trips with bicycle trips.

Other Survey Information

Generally, respondents favored installing bicycle paths and lanes over installing routes. Respondents also stated that demand for rack space on buses often limits bicycle access to transit. Many Culver City bicyclists expressed a desire for increased access to the Ballona Creek Bike Path.

4.4. Bicycle & Pedestrian Counts

Count data provides a baseline estimate for existing bicycle and pedestrian activity in Culver City. The City will also perform new counts after the completion of the Plan and implementation of Plan policies to assess the bicycle/pedestrian activity along specific streets or areas. This section provides a brief summary of the primary count methodology and findings.

Methodology

Volunteers conducted the counts at 18 locations throughout Culver City. Count locations accounted for geographic diversity and intended to capture areas with anticipated high levels of bicycle and pedestrian activity. Volunteers counted bicyclist and pedestrians during peak hour travel during weekdays from 7-9 am and 4-6 pm, and on weekends from 12-2 pm.



Screenline count image

The City required count volunteers to attend a training meeting to ensure uniformity in recording results. Volunteers took "screenline" counts – counting only pedestrians and bicyclists that passed through an imaginary line on the street. Volunteers received maps that instructed them to count at screenline locations. For purposes of age distinction, the counts classified as children individuals that appeared 16 years and younger. The count totals combine three periods of observations, two peak-hour weekday counts and a weekend midday count.

Table 4-1: Total Bicyclist/Pedestrian Counts (May 2009)

Location	Bike Total	Walk Total	Male (adult)		Female (adult)		Child	
			Bike	Walk	Bike	Walk	Bike	Walk
Ballona at Duquesne*	158	43	114	20	35	23	9	0
Ballona at Overland	285	81	224	40	48	30	13	11
Braddock at Elenda	49	310	30	134	16	165	3	11
Culver at Cardiff	120	1371	92	633	26	647	2	91
Culver at Sepulveda	79	108	53	64	25	40	1	4
Irving Pl (Lucerne adjacent)	35	316	16	62	12	158	7	96
Lucerne Ave (Ince adjacent)	74	83	57	19	11	45	6	19
Overland at Culver	150	299	114	162	34	121	2	16
Overland at Jefferson	59	212	34	94	16	97	9	21
Overland at Sawtelle	22	79	20	26	2	41	0	12
Sawtelle at Washington	45	85	38	52	4	33	3	0
Sepulveda at Playa	52	144	44	78	7	54	1	12
Venice at Overland	304	749	262	409	38	295	4	45
Washington at Glencoe**	91	119	74	74	15	45	2	0
Washington at La Cienega	114	173	91	112	14	60	9	1
Washington at National	92	163	69	88	20	70	3	5
Washington at Tilden**	58	130	47	76	6	21	5	33
Wesley St (Higuera adjacent)	16	44	11	19	2	17	3	8

Total	**1803**	**4509**	**1390**	**2162**	**331**	**1962**	**82**	**385**

4.5. Bicyclist Observations

Conducting the bicycle counts allows general conclusions about bicyclists' characteristics. The following section is a summary of the count findings.

Gender

Overall, the count data reflects active levels of bicycling and walking in Culver City. Bicycle count results indicate that male bicyclists outnumbered female bicyclists 4:1. The most popular location for female bicyclists was the Ballona Creek Bike Path. However, the Culver Boulevard Bike Path on Saturday was the only count location where female bicyclists outnumbered male bicyclists.

Levels of Use

The counts recorded the highest concentration of bicyclists along the Venice Boulevard Bike Lane. The Ballona Creek Bike Path had the second highest bicycle count totals. The count data shows high use along existing facilities and makes the case for the installation of future bicycle facilities in Culver City.

Count data shows that the Ballona Creek Bike Path experiences heavier use in the afternoon and during the weekend. The count data also shows that the Ballona Creek Bike Path caters to commuters as well as recreational bicyclists. **Figure 4.7** differentiates bicycle counts by time and location.

Overland Avenue showed an unexpectedly high amount of bicycle use. Overland Avenue is a major arterial within Culver City and connects to some of the City's most popular venues, including Sony Studios, Veteran's Park, Veteran's Center, Culver City Senior Center, Ballona Creek, West Los Angeles College and the *Ralphs/Best Buy/Bally* retail park. The Open Space Element of the Culver City General Plan calls for a bike lane on Overland Avenue and the count data confirms the need for improved bicycle facilities on this street. The count data at Overland Avenue and Culver Boulevard reported 150 bicyclists over the observation period, the third-highest count totals in the City following of Venice Boulevard and Ballona Creek.



Wrong way riding on Jefferson Boulevard

Map 4.1 shows bicyclist activity recorded during the counts. The arrows depict the direction of bicycle travel counted. The count totals combine three observation periods – two peak-hour weekday counts and a weekend midday count.

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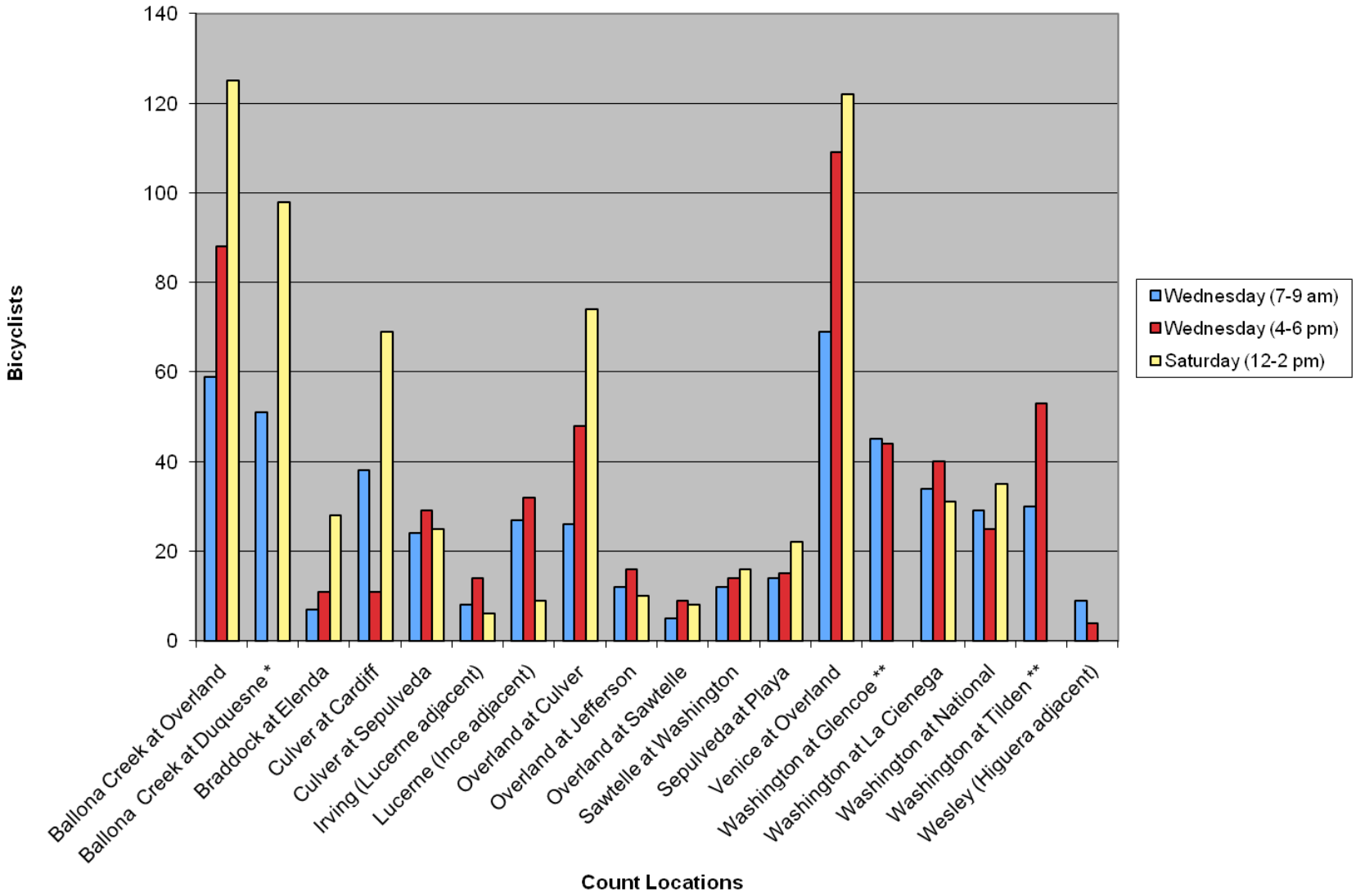
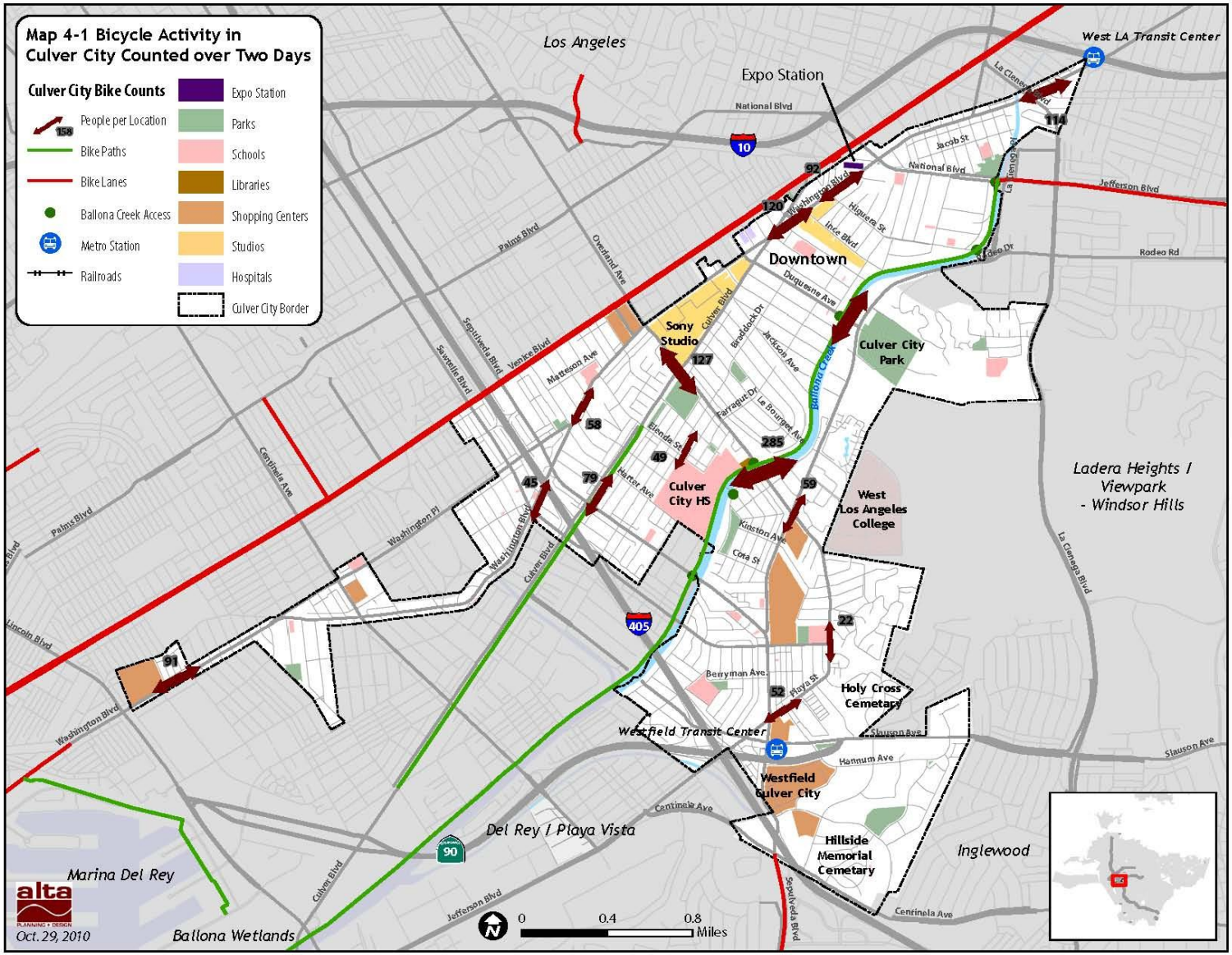


Figure 4.7: Bicyclist Totals by Count Location



Map 4.1: Bicyclist Activity in Culver City Counted over Two Days

Riding Behavior

Count data also provide information on riding behavior in the City, including helmet use, sidewalk riding and wrong-way riding. Forty-one percent of recorded bicyclists did not wear a helmet, twenty-five percent rode on the sidewalk, and nine percent rode in the opposite direction of traffic **Figure 4.8** disaggregates riding behavior data based on count location. This data also shows the need for educating the public on bicycle safety.

4.6. Pedestrian Observations

The following section summarizes the general findings of pedestrian activity in Culver City.

Gender

As opposed to counts showing males making up the greater proportion of bicyclists, the pedestrian counts generally observed an equal gender distribution. Females represented forty-eight percent of pedestrians. Female pedestrians outnumbered male pedestrians at several count locations, including Cardiff Avenue at Culver Boulevard and Braddock Drive at Elenda Street.

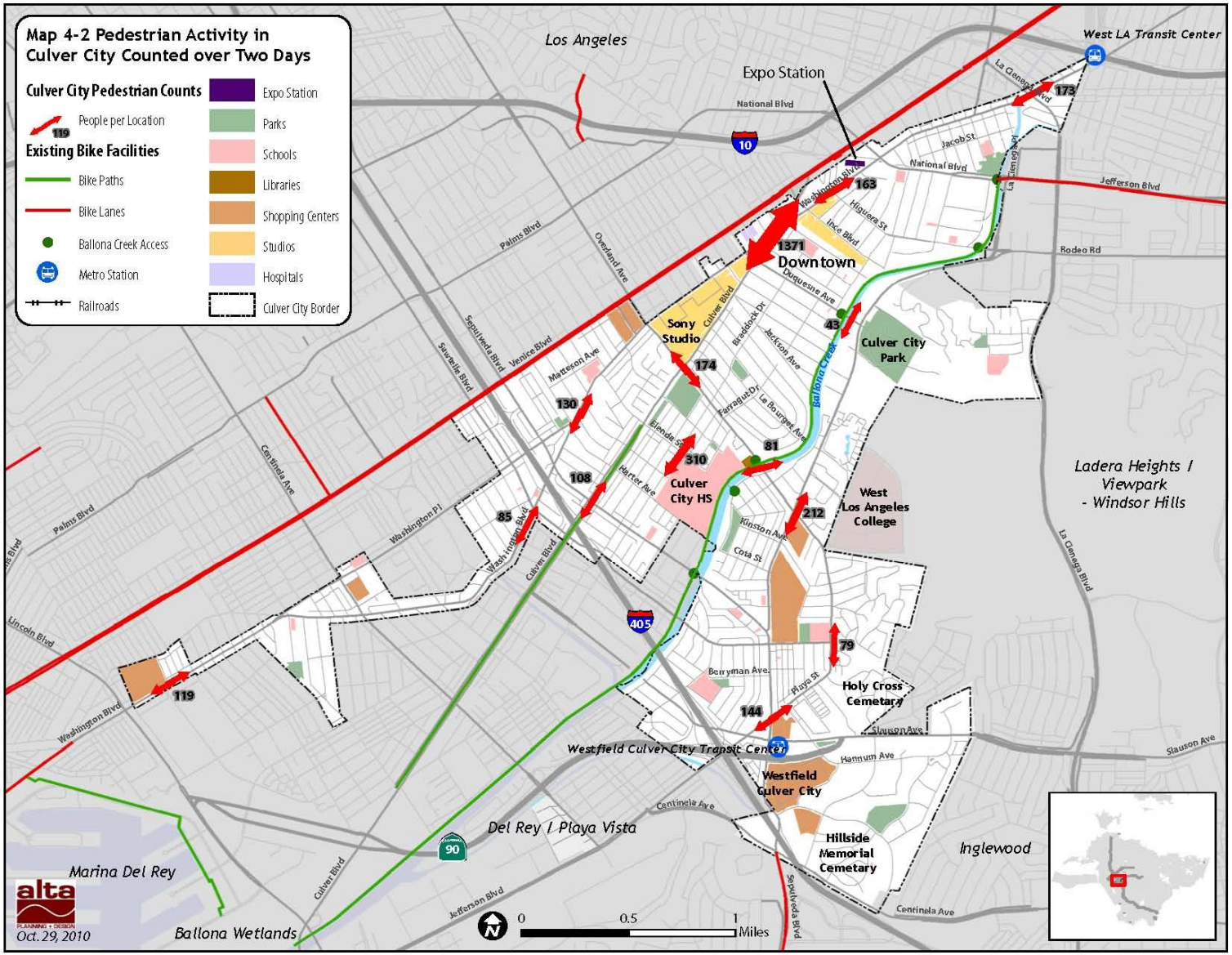
Map 4.2 shows the number of pedestrians observed at each count location.

Levels of Use

The Culver Boulevard and Cardiff Avenue location accounted for over 42 percent of all pedestrians counted. Downtown Culver City has many elements that encourage and facilitate pedestrian travel, including human-scale architecture, outdoor dining, benches and water fountains, retail and entertainment opportunities, and shade

The second most popular pedestrian count location was the Culver Arts District (located along Washington Boulevard east of National Boulevard). Results for counts taken at La Cienega Avenue and Washington Boulevard indicated high levels of pedestrian activity. The Arts District continues to be a desirable place to visit and affirms that pedestrian oriented retail/design can encourage this active and healthy transportation option.

While many parts of Culver City have designs that accommodate pedestrians, other parts of the City have fewer amenities. Active levels of walking occurred at many locations with few pedestrian amenities (e.g. Washington Boulevard at Glencoe Avenue, Sepulveda Boulevard at Playa Street, etc.) possibly because they connect to popular destinations. Generally, people choose to walk to retail, dining, and other shopping/entertainment options. These streets connect to popular attractions in Culver City, without providing commensurate pedestrian facilities.



Map 4.2: Pedestrian Activity in Culver City Counted over Two Days

4.7. Public Workshops

As mentioned earlier, Bicycle & Pedestrian Initiative held several public workshops. The public workshops typically consisted of two parts. The first part of the public workshop served as an organizational meeting for the PAC. The second part allowed the public to comment on parts of the Plan released for public review. The meetings generally followed the following elements of the Plan:



Public Comment during Workshop

- Existing Bicycle & Pedestrian Facilities in Culver City
- Needs Analysis
- Proposed Network
- Draft Document

The first meeting placed poster boards and maps of the street network of Culver City at three comment stations. The workshop encouraged participants to write comments and stick notes on the boards at each station. Participants interacted with Culver City staff and the project staff.

Project staff summarized the input collected at the conclusion of the workshop open comment period and reported the findings to the group. The final portion of the workshop included PAC sub-committee selection and organization. The following sections summarize the comments submitted under the various topics for each station.

Paths

The Paths topic received the greatest number of comments during the initial public meeting. Comments generally focused on the Ballona Creek Bike Path and the Culver Boulevard Bicycle Path. Comments regarding the Ballona Creek Bike Path, mentioned access, signage, mode-separation, maintenance, safety, lighting and landscaping. The Culver Boulevard Bicycle Path comments mentioned extending the facility, adding more lighting, and improving crossings of major streets.

Ballona Creek Bike Path

Meeting attendees suggested adding access points along the Ballona Creek Bike Path. Access points can encourage use and provide a safer contiguous network with more connections to on-street facilities. The public also suggested enhancing access points by restricting parking where the path connects to streets, which allows easier merging into traffic. Attendees also requested improving entryways to allow bicycle trailers to enter onto the path.



Bicyclist on the Ballona Creek

With respect to signage, attendees suggested more way-finding signage with mileage and directional information

to desirable destinations, along with bilingual signage for non-English speaking path users.

Regarding mode-separation, attendees commented that mixed-use paths could lead to bicycle and pedestrian collisions; they preferred dividing users with striping or separate facilities.

Some attendees commented that path maintenance (both trash debris and pavement repairs) needed closer monitoring.

The Ballona Creek Bike Path received frequent comments about safety concerns. Meeting attendees suggested possible improvements, including better lighting, mileage markers for path orientation, more patrols to monitor unlawful behavior, and emergency call boxes.

Some attendees also suggested improving landscaping using native plants, garden sites, and other path amenities.

Culver Boulevard Bike Path

Workshop participants suggested extending the Culver Boulevard Bike Path to Downtown Culver City. They also expressed a need for better lighting and better crossings at major streets.

Pedestrian Facilities

Comments at the pedestrian facilities topic station focused on locations with poor pedestrian facilities. These included Jefferson Boulevard's lack of sidewalks near Hetzler Road, the "jail-like" pedestrian pathway located at Farragut Drive and Jackson/Jasmine Avenue, the fence in the middle of the parking lot between Target Center and Studio Village Shopping Center, and the poor connection between the Helms Bakery area and Downtown along Washington Boulevard. Comments also requested signs prohibiting sidewalk skateboarding and bicycling in the Downtown area, particularly near the movie theater in front of Town Plaza.



Farragut Drive and Jackson Avenue

Traffic Calming

Under the topic of traffic calming, meeting attendees noted several roads that need improvements. Specific suggestions included speed humps for Braddock Drive and a larger drop-off area at Irving Place near School Street. Other suggestions included a need for general traffic calming measures on Ince Boulevard and Lucerne Avenue.

Crossings

Meeting attendees identified a number of difficult intersection crossings for pedestrians and bicyclists. The primary concern for bicyclists at intersections was a need for traffic signal detectors that respond to the presence of bicycles, rather than simply large motor vehicles. Attendees noted such an example at Berryman Avenue and Washington Boulevard. Participants noted that the pedestrian signal timing of some intersection crossings was too short—specifically at Ince Boulevard at Washington Boulevard, and Culver Boulevard at Washington Boulevard. Attendees also cited several intersections as generally problematic. These included

Duquesne Avenue at the Ballona Creek Bike Path entrance, Washington Boulevard at McLaughlin Avenue, and Mentone Avenue at Braddock Drive.

Roads

Meeting participants shared a number of comments regarding specific roads, which they felt created difficult conditions for bicycling. Key streets cited as uncomfortable for bicycling included Jefferson Boulevard, Washington Boulevard, Overland Avenue, Braddock Drive, and Culver Boulevard. Participants suggested the use of sharrows or "Share the Road" signs on Washington Boulevard and Duquesne Avenue. Several comments also advocated for better lighting on roads at underpasses for freeways, improved maintenance, and replacing existing gutters with those that have grates running perpendicular to the direction of bicycle traffic.



Bicyclist sharing a narrow travel lane

Meeting participants also expressed some general overall needs within the City's road system. These included calls for more north-south bikeway connections within the City limits, better coordination for connections to bike facilities in neighboring cities and more routes off busy arterial roads.

Multi-Modal Connections & Bike Parking

This station encouraged the public to express their needs for facilities that accommodated connections to different transportation systems. For bicycling connections to walking trips, this included requests for bicycle parking facilities at popular destinations, like the Veterans Memorial Auditorium. For connections to transit, this included short and long-term parking facilities (racks and storage lockers) at bus stops and the future Exposition Light Rail station. One commenter also suggested publishing a map of bicycle parking facilities.

Although the general public sentiment encouraged more bicycle racks, participants also expressed a need to replace some existing racks near City Hall and Downtown, which they felt were difficult to use and discouraged some multi-modal trips.



Bike Parking at City Hall

General Comments

A number of comments advocated for better driver and bicyclist education. One comment suggested implementation of Safe Routes to School "walking school bus" or "bike bus" programs. Another suggested implementing the innovative "bike box" treatment at intersections to accommodate bicyclist lane positioning

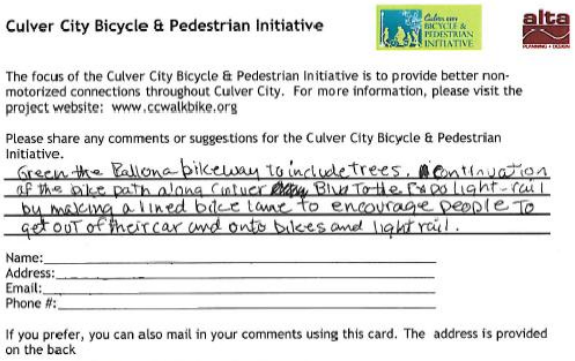
at stoplights. And another suggested implementing the "Idaho stop," which allows bicyclists to simply yield at stop signs with respect to cross traffic (not currently allowed by the California Vehicle Code), instead of requiring a complete stop. Several bicyclists commented on the potential hazards presented to bicyclists from road maintenance and the installation of utility cables. Often workers install utility cables in the same area of the road as bicyclists travel. This practice needs review to determine ways to mitigate its effects on bicyclists where possible.

Focused Survey Summary

The BPMP conducted two types of surveys, general and focused. Workshop attendees took the "focused" surveys, which allowed the City to determine demographics at the workshops and to determine outreach/advertising effectiveness. The results concluded that most individuals heard about the workshop by word of mouth.

Additional Comments

Members of the public had several options for providing feedback throughout the planning process. Participants could submit additional comments using comment cards distributed at the public workshops, or by email submission through the Initiative's website at www.ccwalkbike.org.


Culver City Bicycle & Pedestrian Initiative

The focus of the Culver City Bicycle & Pedestrian Initiative is to provide better non-motorized connections throughout Culver City. For more information, please visit the project website: www.ccwalkbike.org

Please share any comments or suggestions for the Culver City Bicycle & Pedestrian Initiative.

Green the Ballona bikeway to include trees. Continuation of the bike path along Culver Blvd to the Expo light-rail by making a lined bike lane to encourage people to get out of their car and onto bikes and light rail.

Name:
Address:
Email:
Phone #:

If you prefer, you can also mail in your comments using this card. The address is provided on the back

Example Comment Card

The comments often focused on increasing the numbers and coverage of bicycle facilities, and improving conditions of existing facilities. Many comments focused on the Ballona Creek Bike Path, Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane. While opportunities for improving these facilities may be limited, improving the connectivity of Culver City bikeways and adjacent areas is a primary focus of the Plan.

4.8. Audits

The following section summarizes the findings from the audits conducted on May 9 and May 16, 2009. Planners selected audit locations based on geographic diversity and their strategic relationship to Culver City. The Initiative website advertised the audits and staff sent direct invitations to the PAC, TAC, and members of the public expressing interest in attending future Initiative events.


Downtown walk audit

The audits had three major periods:

I. Introduction (15 minutes)

a. Explain process
b. Distribute map/materials

II. Active Observation (60 minutes)

a. Walk/bike route
b. Fill out observation sheet

III. Post Audit Discussion (45 Minutes)

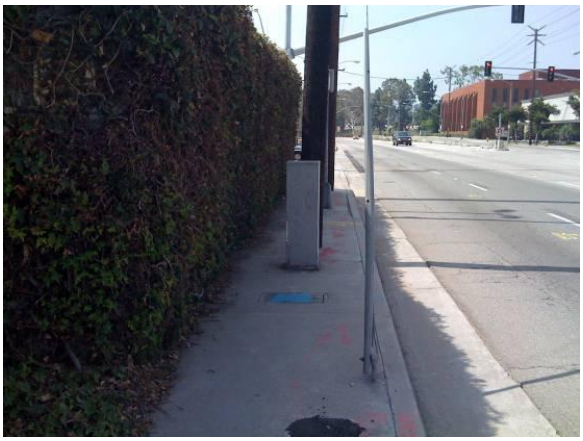
a. Group observations
b. Capture feedback
c. Synthesis into recommendations/report

Westfield Culver City Audit

This audit focused on the connections to the Westfield Culver City Mall Transit Center and the intersection of Sepulveda Boulevard and Slauson Boulevard.

Major Findings included:

- Utility boxes frequently obstruct sidewalk users.
- Intersection signals have short pedestrian crossing times
- Roadways need more prominent crossings



Obstructed sidewalk on Sepulveda Boulevard

Participants noted that short signal countdown times, coupled with a lack of crossing islands, are an issue for those with impaired mobility. Because of Westfield Culver City Mall's proximity to a major transit hub, audit participants felt that focusing improvements on crosswalks would make the area more pedestrian friendly.

Exposition Light Rail Transit (Expo) Audit

This audit focused on the future site of the Expo Light Rail Transit station and addressing increased pedestrian access.

Major Findings included:

- Pedestrians are uncomfortable due to high traffic speed, lack of buffer from the street while on the sidewalk
- The area needs pedestrian connectivity
- The streetscape lacks pedestrian-oriented design or features

A review of completed worksheets from the audit participants revealed high levels of pedestrian discomfort attributed to high traffic speeds. Auditors identified the need for more shade, landscaping and various improvements that would enhance the aesthetics of the area. This area was undergoing redevelopment at the time of the audit, and the City anticipates pedestrian improvements upon completion of the redevelopment projects.

Washington Boulevard Audit

The Washington audit focused primarily on the stretch of Washington Boulevard between McConnell Avenue and Beethoven Street due to its proposed design as a future pedestrian friendly zone.



Washington Boulevard walk audit

Major Findings included:

- The crossing at Washington Place at Washington Boulevard needs improvement
- Traffic cameras have a negative effect on pedestrian environment

Participants noted that the intersection of Washington Boulevard and Washington Place creates an uninviting pedestrian environment. An issue that that arose at this audit was the potential effect of traffic cameras on the pedestrian environment. This stretch of road has traffic cameras installed to catch and enforce motor vehicles running red lights. Participants observed several instances of loud screeching due to harsh braking and near-hit-accidents during the observation period. Audit participants attributed this behavior to motor vehicles suddenly stopping to avoid getting tickets.

Participants also observed that bicycle parking was virtually non-existent, despite the many shops on Washington Boulevard that cater to neighborhood commercial activity.

Sepulveda Boulevard & Culver Boulevard Walk Audit

The Sepulveda Boulevard audit focused on the Culver Boulevard bicycle and pedestrian oriented path, and the neighborhood commercial district south of Culver Boulevard along Sepulveda Boulevard.

Major Findings included:

- The corridor needs additional shade
- The Culver Boulevard Bike Path could benefit from more midblock crossings between Sepulveda Boulevard and Elenda Street

Major findings of this audit focused on enhancing the pedestrian environment along Sepulveda Boulevard. In general, a lack of shade was a major concern, as well the lack of prominent bicycle parking. Auditors approved of the walking environment, especially along the planted median of the Culver Boulevard Bike Path.

Downtown Walk Audit

Because residents and visitors consider Downtown Culver City as the most pedestrian-friendly part of Culver City, this audit examined the positive aspects of Downtown that could be replicated elsewhere in Culver City. Overall, auditors found an adequate supply of shade, rest areas, and bicycle parking. Auditors felt that some aspects of Downtown need improvements.

Major Findings included:

- The intersection between Culver Boulevard and Washington Boulevard (east) needs improvement
- Downtown Culver City "successes" can be replicated elsewhere

- The area has a good supply of bike parking, but needs updated racks

Audit findings focused on the intersection between Culver Boulevard and Washington Boulevard. Pedestrians navigating this intersection felt intimidated by the layout. Direct crossings at this intersection would link the east and west sections of Downtown in a more convenient alignment. Participants also asked for more signage and wayfinding tools.

Downtown – East Culver City Connector Bike Audit

The Downtown – East Culver City Connector is the proposed alignment of several residential streets (Wesley Street, Lucerne Avenue, Irving Place, and Van Buren Place) that will connect the eastside of Culver City and Expo Bike Path with Downtown and the rest of Culver City. The bike audit focused on the Downtown – East Culver City Connector alignment, as well as Culver Boulevard and National Boulevard.

Major Findings included:

- The City needs to create a Citywide route system
- The City needs to facilitate east-west travel
- Schools need to address motor vehicle congestion during student pick up times



Bike audit participants

Auditors generally approved of the road conditions along Wesley Street, Lucerne Avenue, and Irving Place. Irving Place and Van Buren Place have traffic calming features that prohibit two-way traffic at points in the road. Auditors observed bicyclists and pedestrians along the route, and concluded that the Downtown – East Culver City Connector is a convenient route.

Auditors advocated advertising the Downtown – East Culver City Connector as a part of a citywide route system, with signage that could direct bicyclists through the City.

4.9. Collision Analysis

This section examines Culver City bicycle and pedestrian related incident data, collected from the Statewide Integrated Traffic Records System (SWITRS) over a five-year period (2002 – 2007).

Bicycle Collisions

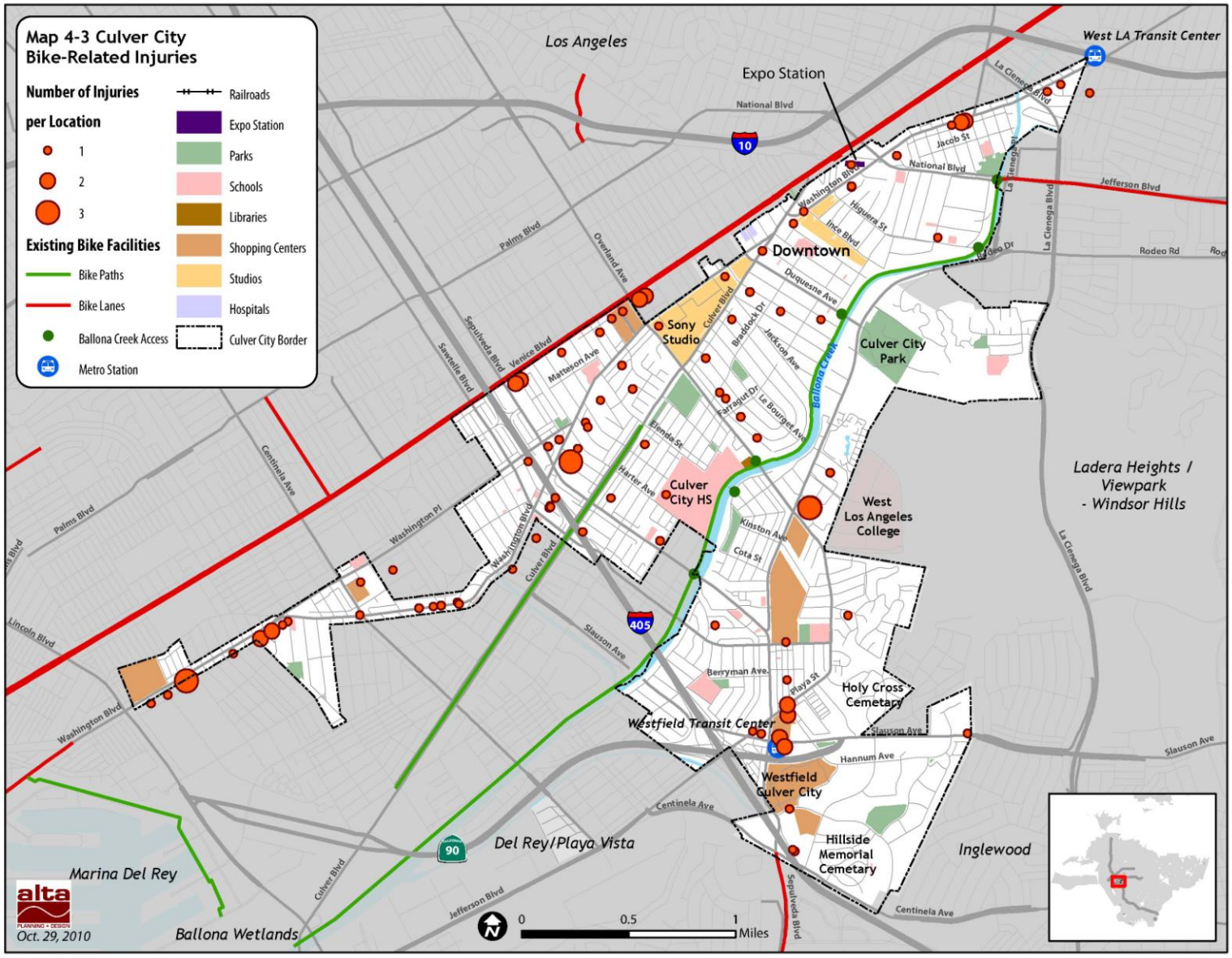
Map 4.3 shows bicycle collisions. Some notable clusters emerge along Washington Boulevard, leading eastward towards the *Costco* area and around the Westfield Culver City Mall Transit Center area.

Culver City had 94 reported bicycle-related incidents in the years between 2002 and 2007, an average 19 incidents per year and roughly .467 incidents per 1,000 persons per year. Culver City's bicycle collision rate is higher than the State average of .327 incidents per 1,000 persons per year. During this five-year period, the frequency of bicycle-related incidents remained relatively static. The Design Guide contained in the BPMP will work towards reducing bicycle-related incidents in the City.

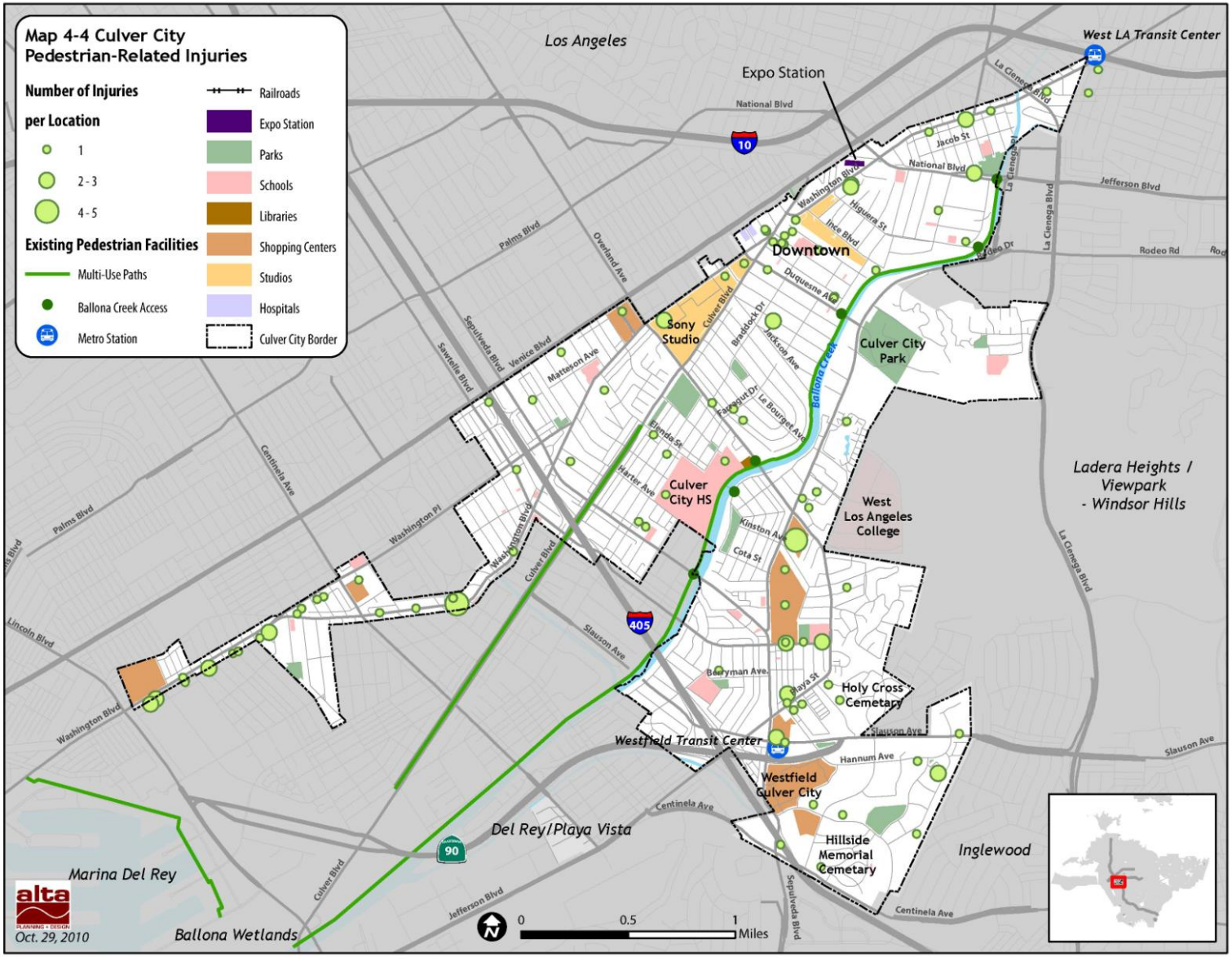
Pedestrian Collisions

Map 4.4 maps pedestrian collisions. Some notable clusters emerge in the Downtown area, around the Westfield Culver City Mall Transit Center and along Washington Boulevard, near the *Costco* area.

Culver City had 126 reported pedestrian-related incidents in the years between 2002 and 2007, an average of 25 incidents per year, and roughly .615 incidents per 1,000 persons per year. Culver City's pedestrian collision rate is above the State average of .499 incidents. The level of pedestrian incidents increased slightly in the past two years. The Design Guide contained in the BPMP will work towards reducing pedestrian-related incidents in the City.



Map 4.3: Culver City Bike-Related Injuries 2002-2007



Map 4.4: Culver City Pedestrian-Related Injuries 2002-2007

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5. Bicycle and Pedestrian Network

5.1. Bicycle and Pedestrian Facility Types

This section describes the criteria used to develop the proposed bicycle and pedestrian facility maps for Culver City.

5.1.1. Network Facility Types

The recommended Culver City bicycle and pedestrian network includes the following types of facilities:

1. Bike Paths (Class I)
2. Bike Lanes (Class II)
3. Bike Routes (with Sharrows) (Class III)
4. Bike Routes (Signage only) (Class III)
5. Potential Bicycle Friendly Streets (Bicycle Boulevards) (Class III)
6. Pedestrian Improvement Zones
7. Pedestrian Improvement Corridors



Photo simulation of Washington Boulevard with sharrows

The Plan discusses each facility type's features, and explains how each facility type will function within the bikeway and pedestrian network. The City will construct the network in stages as grant and other funding becomes available, or as roads undergo scheduled resurfacing.

Table 5-1: Existing and Proposed Bikeway Mileage

Existing Bikeway Facilities	
Facility Type	**Mileage**
Bike Paths (Class I)	3.22
Bike Lanes (Class II)	1
Total Mileage (Existing)	4.22
Proposed Bikeway Facilities	
Facility Type	**Mileage**
Bike Paths (Class I)	0.42
Bike Lanes (Class II)	6.5
Sharrows (Class III)	9.73
Bike Routes (Class III)	5.61
Bike Friendly Streets (Class III)	14.62
Total Mileage (Proposed)	36.88
Total Mileage	**41.1**

Bike (Multi-Use) Paths (Class I)

There are current plans to build a multiuse path running as part of the Metro Expo Line project. The path will run parallel to National Boulevard, from the Ballona Creek Bike Path to Wesley Street. The Plan assumes a twelve-foot, fully paved path that accommodates cyclists, pedestrians, and other users. Sidewalks on streets intersecting this existing segment of National Boulevard will receive direct access to the new bike path.

Table 5-2: Proposed Bike Path

Street	Limit 1	Limit 2	Length (Miles)
National Blvd	Ballona Creek Bike Path	Wesley St	0.42

Bike Lanes (Class II)

The Plan recommends bike lanes for all major roadways within the City where feasible (i.e. without major alterations to the current roadway configuration). The Plan uses the following lane width assumptions to determine bike lane feasibility:

- 8-foot minimum width for street parking
- 5-foot minimum width for bike lanes
- 11-foot minimum width for travel lanes adjacent to bike lanes

At present, based on these assumptions, sections of Washington Place, Washington Boulevard, and Jefferson Boulevard have sufficient curb-to-curb width to install bike lanes without removing other roadway features. Note that installing bike lanes would require modifying the existing striping for the vehicle lanes. This related striping work increases the total project cost. The widths provided above are guidelines only, and do not prohibit installing facilities with smaller widths based on the Public Works Director/City Engineer's discretion. Geometric design will determine bike lane configurations at intersections.

Table 5-3: Proposed Bike Lanes

Street	Limit 1	Limit 2	Length (Miles)
A St	Irving Pl	Van Buren Pl	0.07
Buckingham Pkwy	Hannum Ave	Green Valley Cir.	0.44
Centinela Ave	Hillside Memorial Park	Green Valley Cir.	0.27
Green Valley Cir	Centinela Ave	Sepulveda Blvd	0.86
Hannum Ave	SR 90 Underpass	Canterbury Dr	0.6
Jefferson Blvd	Lotts Lane	E City Limit	0.56
National Blvd	N City Limit	Washington Blvd	0.09
Sawtelle Blvd	Culver Blvd	Braddock Dr	0.24
Sawtelle Blvd	Ballona Creek	Overland Ave	0.75
Washington Blvd	Walnut Ave	Beethoven Ave	0.6
Washington Blvd	Centinela Ave	Sepulveda Blvd	1.25
Washington Blvd	Landmark St	Helms Ave	0.31

Street	Limit 1	Limit 2	Length (Miles)
Washington Pl	Wade St	Boise Ave	0.13
Washington Pl	Boise Ave	Centinela Ave	0.17
Washington Pl	Centinela Ave	Grand View Blvd	0.16
Total Miles			**6.5**

Bike Routes with Sharrows (Class III)

This Plan considered installing bike routes on major roadway segments (primary and secondary arterials) within the City where bike lanes may not be feasible in the near term (e.g. bike lanes cannot be installed without removing an existing travel or parking lane). On bike route segments where on-street parking is present and the speed limits are appropriate, this Plan recommends using the California Manual on Uniform Traffic Contrl Devices (CaMUTCD) "Shared Roadway Bicycle Marking" (commonly referred to as a "Sharrow" or "Shared Lane Marking").

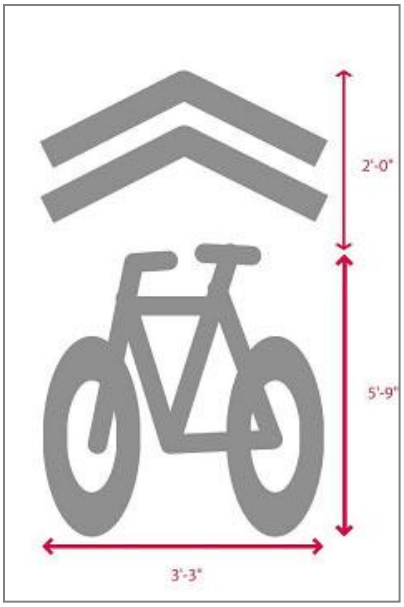


Figure 5.1: Sharrow Marking with dimensions

Table 5-4: Proposed Sharrow Routes

Street	Limit 1	Limit 2	Length (Miles)
Centinela Ave	Washington Pl	Washington Blvd	0.21
Culver Blvd	Overland Ave	Duquesne Ave	0.6
Duquesne Ave	Braddock Dr	Jefferson Blvd	0.42
Jefferson Blvd	Overland Ave	Lotts Lane	1.03

Street	Limit 1	Limit 2	Length (Miles)
Overland Ave	Playa St	Culver Blvd	1.71
Sawtelle Blvd	Venice Blvd	Culver Blvd	0.81
Sepulveda Blvd	Venice Blvd	Jefferson Blvd	2.14
Washington Blvd	Sepulveda Blvd	Overland Ave	0.8
Washington Blvd	Duquesne Ave	Culver Blvd	0.25
Washington Blvd	170' n/o Canfield Ave	Landmark St	0.3
Washington Blvd	Helms Ave	Fairfax Ave	0.86
Washington Blvd	Beethoven Ave	Centinela Ave	0.6
Total Miles			**9.73**

Bike Routes with Signage Only (Class III)

This Plan recommends the bicycle route designation with signage on major roadway segments where (1) bike lanes are not feasible in the near term, and (2) on-street parking is not present or the speed limit is not appropriate. This Plan also considers signs such as the Bicycle Warning signs (W-11) and the Share the Road signs (W-11 + W-16-1) to supplement the standard CaMUTCD "BIKE ROUTE" (D-11) signage. The Design Guide (**Appendix 1**) provides a more comprehensive list of signage options.

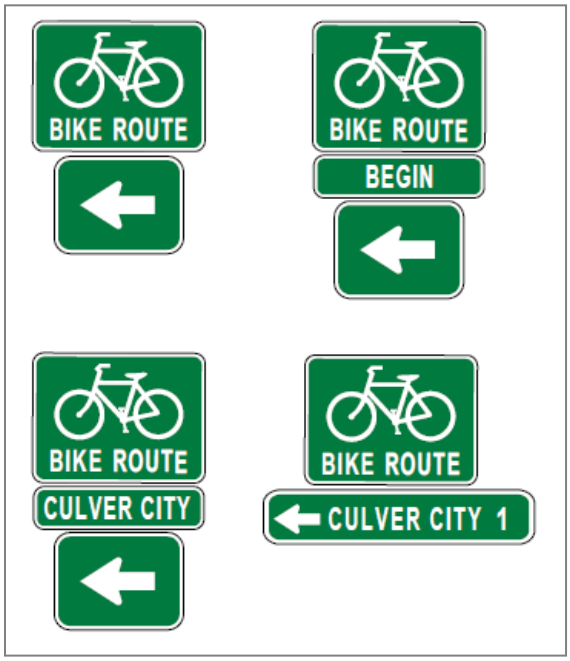


Figure 5.2: Sample Bike Route Signage

Table 5-5: Proposed Bike Routes

Street	Limit 1	Limit 2	Length (Miles)
Adams Blvd	North City Limit	Fairfax Ave	0.2
Bristol Pkwy	Slauson Ave	Centinela Ave	0.75
Buckingham Pkwy	Canterbury Dr	Slauson Ave	0.09
Centinela Ave.	Mesmer Ave.	Hillside Memorial Park	0.5
Culver Blvd	Duquesne Ave	Venice Blvd	0.5
Culver Blvd	Elenda St	Overland Ave	0.32
Hannum Ave	Playa St	Slauson Ave	0.2
Hannum Ave	Slauson Ave	SR 90 Underpass	0.1
Jefferson Blvd	Sepulveda Blvd	Overland Ave	0.6
Overland Ave.	Culver Blvd	Venice Blvd	0.4
Playa St	Overland Ave	Slauson Ave	0.5
Sepulveda Blvd	Jefferson Blvd	Centinela Ave	0.66
Washington Blvd	Overland Ave	Duquesne Ave	0.57
Washington Blvd	Culver Blvd	170' n/o Canfield Ave	0.14
Washington Pl	Washington Blvd (west end)	Wade St	0.08
Total Miles			**5.61**



Huron Avenue is a Proposed Bicycle Friendly Street and displays the need for improved pavement for more comfortable/safe riding

Bicycle Friendly Streets

Bicycle Friendly Streets (BFS) are also referred to as "Bicycle Boulevards." Due to confusion caused by the term Bicycle Boulevard and the differing levels of treatments associated with this type of facility, we use Bicycle Friendly Street as an alternative term.

The "Proposed Bicycle Friendly Street" designation identifies low-volume streets that can undergo enhanced treatments after traffic engineering analysis. Streets will receive the Bicycle Friendly Streets designation only after the traffic engineering analysis and necessary improvements.

In contrast to the previously described classifications, this Plan recommends the Bicycle Friendly Streets designation only on predominantly residential streets with relatively low traffic volumes. **Table 5.5** provides a complete list of all Proposed Bicycle Friendly Streets. The table is listing and not a priority ranking. The Plan uses the following criteria to differentiate Proposed Bicycle Friendly Streets from other residential streets within Culver City.

Length (Continuity)

This Plan selected facilities with minimal interruptions/breaks in their continuity. In some cases, the streets selected provide continuity with existing or proposed bikeways in neighboring jurisdictions.

Conditions at Major Roadway Crossings

Crossing major streets at unsignalized intersections can be problematic for bicyclists. Project staff used fieldwork to find streets with existing traffic signals at intersections with arterials. Some routes will require intersection improvements. These improvements may include traffic signals or other crossing improvements, such as "crossing islands" or "median refuges."

Connectivity

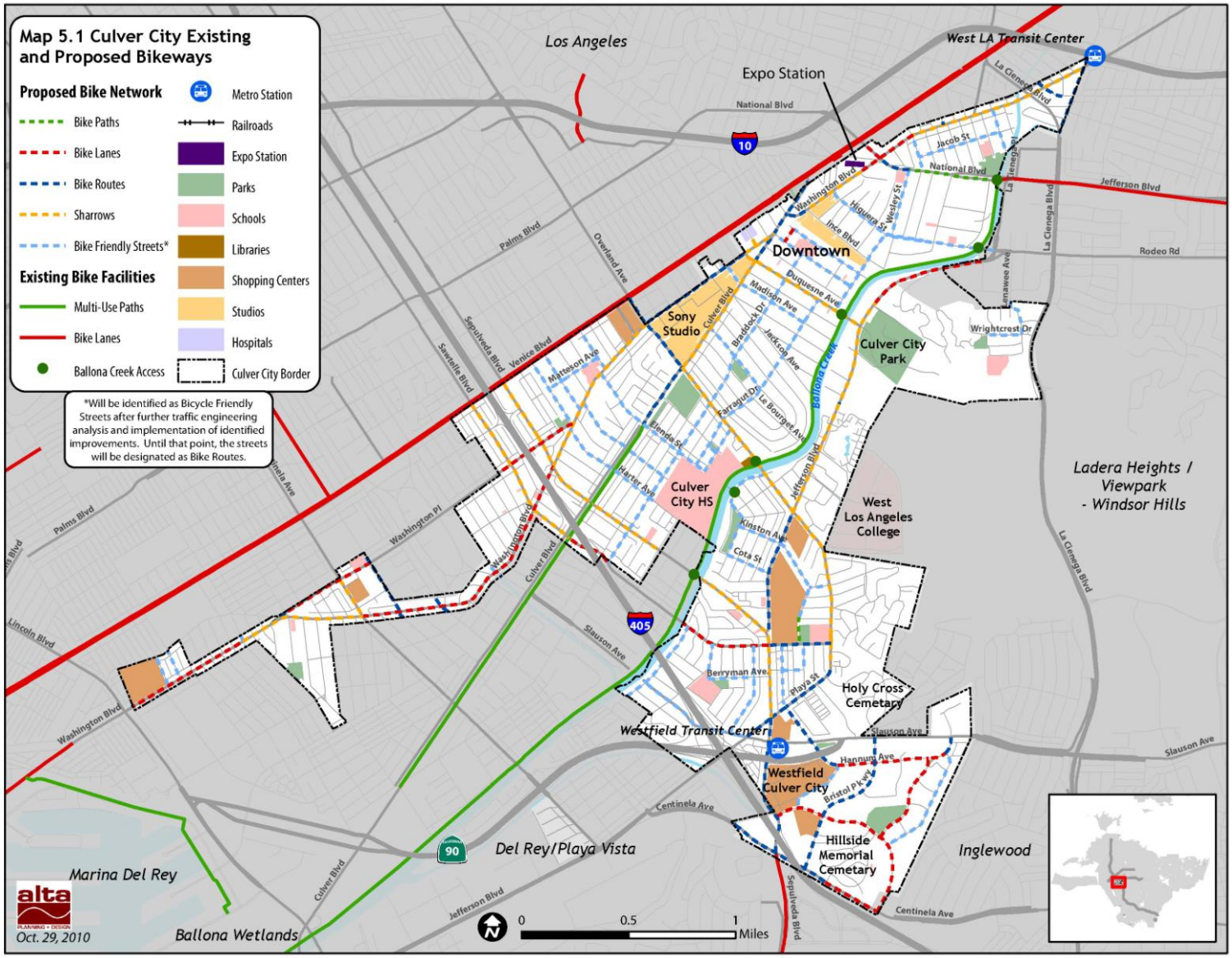
Proposed Bicycle Friendly Streets should connect people with neighborhood amenities. Streets received recommendations based on their proximity/connection to the existing bikeway network, schools, community centers, recreation centers, parks, shopping/retail, employment hubs, and other desirable destinations.

The streets designated as Bicycle Friendly Streets will receive—at a minimum—standard bicycle route signage. Bicycle Friendly Streets may also receive custom signage, sharrows, and traffic calming features, where supported by future engineering analysis.

Map 5.1 displays the recommended bicycle network.

Table 5-6: Proposed Bicycle Friendly Streets

Street	Limit 1	Limit 2	Length (Miles)
Beethoven St	308' through Washington Blvd intersection		0.06
Berryman Ave	Segrell Way	Hayter Ave	0.21
Braddock Dr	Sawtelle Blvd	Irving Pl	1.7
Bush Way	Malat Way	Hannum Ave	0.1
Canterbury Dr	Hannum Ave	Green Valley Cir	0.55
Cota St	Rhoda Way	Jefferson Blvd	0.2
Elenda St	Washington Blvd	Farragut Dr	0.68
Farragut Dr	Duquesne Ave	Overland Ave	0.74
Farragut Dr	Overland Ave	Elenda St	0.23
Flaxton St	Overland Ave	Kinston Ave	0.1
Fox Hills Dr	Hannum Ave	Green Valley Cir	0.29
Franklin Ave	Overland Ave	Elenda St	0.25
Girard Ave	Venice Blvd	Washington Blvd	0.21
Hannum Ave	Sawtelle Blvd	Playa St	0.3
Harter Ave	S. City Limit	Washington Blvd	0.63
Hayter Ave	Segrell Way	Sawtelle Blvd	0.16
Helms Ave	Washington Blvd	National Blvd	0.17
Higuera St	Washington Blvd	Jefferson Blvd	0.82
Huron Ave	Braddock Dr	Venice Blvd	0.83
Irving Pl	Lucerne Ave	Culver Blvd	0.44
Jacob St	Helms Ave	Reid Ave	0.39
Kinston Ave	Rhoda Way	Flaxton St	0.46
Lenawee Ave	Rodeo Rd	Wrightcrest Dr	0.41
Lucerne Ave	Higuera St	Duquesne Ave	0.43
Madison	Washington Blvd	Farragut Dr	0.44
Malat Way	Sawtelle Blvd	Bush Way	0.12
Matteson Ave	Tilden Ave	Girard Ave	0.27
McDonald St	City Limit/Emporia Ave	Sawtelle Blvd	0.43
McLaughlin	N City Limit	S City Limit	0.09
Ocean Dr	Rhoda Way	Overland Ave	0.23
Reid Ave	Washington Blvd	Syd K. Park	0.24
Rhoda Way	Cota	Ocean Dr	0.27
Segrell Way	Sawtelle Blvd	Slauson Ave	0.44
Slauson Ave.	Jefferson Blvd	Mc Donald St.	0.53
Tilden Ave	Washington Blvd	Venice Blvd	0.35
Van Buren Pl	School St	Lucerne Ave	0.37
Wesley St	National Blvd	Higuera St	0.32
Wrightcrest Dr	Lenawee Ave	Blair Hills Park	0.16
Total Miles			**14.62**



Map 5.1: Proposed Bicycle Network

Pedestrian Improvement Areas

Field reviews and public input identified Pedestrian Improvement Areas as having high existing or potential pedestrian demand. Identifying these zones will assist in prioritizing pedestrian improvements and maintenance. **Table 5-7** lists Pedestrian Improvement Areas in order of priority score.

Table 5-7: Pedestrian Improvement Areas

Project Name	From	To
Expo Light Rail Station	Venice Blvd	Wesley St
Costco Shopping area	Walnut Ave	Glencoe Ave
Target/Bed Bath & Beyond (Jefferson / Sepulveda)	Kinston Ave	Playa St
Downtown Culver City	Madison Ave	Main St
Jefferson Blvd & Overland Ave (intersection)	Jefferson Blvd	Overland Ave

Pedestrian Improvement Corridors

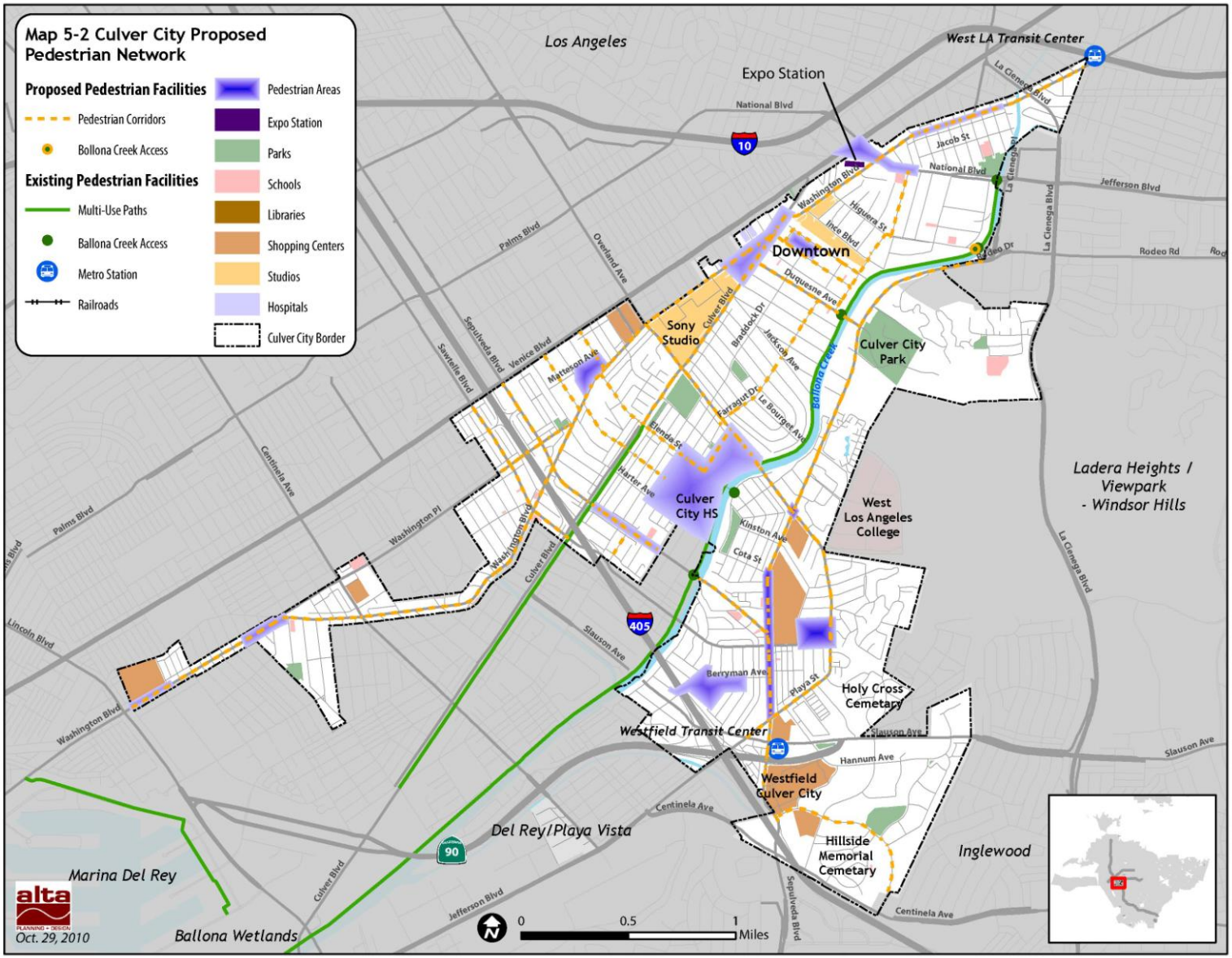
Pedestrian Improvement Corridors are streets in Culver City significant to pedestrian travel. As pedestrian corridors, these streets will receive priority attention with respect to maintenance, amenities and improvements.

Table 5-8 lists the Pedestrian Corridors in order priority order.

Table 5-8: Pedestrian Corridors

Project Name	From	To
Braddock Dr	Sawtelle Blvd	Irving Pl
Overland Ave	Venice Blvd	Playa St
Washington Blvd	Walnut Ave	Fairfax Ave
Culver Blvd	Sawtelle Blvd	Washington Blvd
Elenda St/Girard Ave	Venice Blvd	Farragut Dr
Irving Pl/Van Buren Pl	A Street	Lucerne Ave
Farragut Dr/Franklin Ave	Duquesne Ave	Elenda St
Sepulveda Blvd	Venice Blvd	Jefferson Blvd
Huron Ave	Venice Blvd	Braddock Dr
Sawtelle Blvd	Venice Blvd	Braddock Dr
Washington Place	Albright Ave	Washington Blvd
Wesley St	National Blvd	Higuera St
Lucerne Ave	Higuera St	Duquesne Ave

Map 5.2 displays the recommended pedestrian network.



Map 5.2: Proposed Pedestrian Network

6. Prioritization and Implementation

This chapter provides the methodology for the prioritization of bicycle and pedestrian projects in Culver City. The improvements called out in this chapter are for on street facilities. Improving the bicycle and pedestrian infrastructure in Culver City will allow residents and visitors to use motor vehicles less and live healthier lifestyles.

6.1. Project Criteria

Members of the TAC and feedback from the PAC combined to create project criteria. Each criterion contains valuable information about a facility and its ability to address an existing or future need in Culver City.

System Gaps & Connectivity to Existing Facilities

Existing facilities promote and support walking and bicycling, but their failure to connect to larger systems leaves gaps in the network. These gaps discourage walking/biking because they limit route continuity and prevent direct connections to desirable destinations. Projects that extend or connect to the Ballona Creek Bike Path, the Culver Boulevard Bike Path, and Venice Boulevard Bike Lane qualify for this prioritization criterion.

Connections to Activity Centers

Activity centers are the major trip-driving destinations within the City (e.g. Helms Bakery, Downtown, Culver Studios, *Target*, Parks, etc). Increasing bicycle and pedestrian accessibility to major Activity Centers can reduce traffic congestion and support residents and visitors who choose to bicycle or walk. Projects that connect to these centers qualify for this prioritization criterion.

Proximity to Transit Hubs

Bicycle and pedestrian accessibility to transit hubs is essential for longer multimodal trips. Facilities within ¼ mile of the Westfield Culver City Transit Center, West LA Transit Center, the Exposition Light Rail Station, and other transit hubs qualify for this prioritization criterion.

Proximity to Schools

School children typically have higher rates of bicycling and walking than adults for transportation. To encourage more students to bike and walk to school, proposed facilities within ¼ mile of K-12 schools (public and private) and West LA College qualify for this prioritization criterion.

Collisions

New facilities can reduce the frequency of bicycle/pedestrian collisions with motor vehicles. Projects that serve areas with concentrated amounts of bicycle/pedestrian collisions qualify for this prioritization criterion.

Public Input

The City solicited public input using a website survey, comment cards (electronic and printed), and public workshops. Feasible projects with demonstrated public endorsement qualify for this prioritization criterion.

6.2. Project Criteria Ranking

Each of the criteria in **Section 6.1** contains elements of a project's value to the bicycle and pedestrian network of the City.

In the summer of 2009, members of the TAC and PAC provided input concerning each of the criteria and ranked them from one to six in order of their importance to Culver City bicycle and pedestrian facilities. The ranking exercise resulted in the following prioritization:

1. System Gaps & Connectivity to Existing Facilities
2. Connections to Activity Centers
3. Proximity to Transit Hubs
4. Proximity to Schools
5. Collisions & Public Input (tie)

The extent to which proposed projects address these criteria determines the project's prioritization in construction and funding. Based on the above results, the criterion that will have the most impact on project implementation is System Gaps & Connectivity to Existing Facilities.

Table 6.1 shows how the PAC and TAC ranking exercise translated into weights for project prioritization. Weights are based on direct, secondary, or no service at all. Direct service means that a facility intersects with a facility, whereas secondary access occurs through connecting to a proposed facility or area in the network that meets the criteria.

Table 6-1: Criteria Weight/Scoring

Criteria	Score	Multiplier	Total Possible Score	Description
Connectivity	2	3.0	6	Direct access to an existing bicycle/pedestrian facility.
	1	3.0	3	Secondary access to an existing bicycle/pedestrian facility.
	0	3.0	0	No direct access to an existing bicycle/pedestrian facility.
Activity Centers	2	3.0	6	Direct connection to a major trip-driving destination in Culver City.
	1	3.0	3	Secondary connection to a major trip-driving destination in Culver City.
	0	3.0	0	No connection to a major trip-driving destination in Culver City.
Transit	2	2.0	4	Direct access to a transit station.
	1	2.0	2	Access to an existing bikeway that accesses a transit station within a half mile of the station.
	0	2.0	0	No direct access to a transit station with a half mile.
Schools	2	2.0	4	Direct access to a Culver City school (within a 1/4 mile).
	1	2.0	2	Secondary access to a Culver City school (within 1/2 mile)
	0	2.0	0	No direct access to a Culver City school.
Public Input	2	1.0	2	Identified by the public as desirable for a future facility (multiple times).
	1	1.0	1	Identified by the public as desirable for a future facility (once).
	0	1.0	0	Not identified by the public as desirable for a future facility
Collisions	2	1.0	2	Roadway that experienced four or more collisions in the last five years.
	1	1.0	1	Roadway that experienced one to four collisions in the last five years.
	0	1.5	0	Roadway that did not experience a collision in the last five years.

6.3. Project Prioritization Tables

The following tables present the proposed bicycle and pedestrian projects in the City, ranked according to the weighted criteria. The First Tier Projects are the five highest-ranked bicycle and five highest ranked pedestrian projects. The Second Tier and Third Tier Projects are lower-priority projects that the City can implement upon completing the First Tier projects or if provided the opportunity and funding.

The City will try to implement these projects in the rough order of their prioritization, tier, and availability of full funding. These rankings are not the final implementation order, but a guide to direct the City as funding and opportunities arise.

Table 6-2: Bicycle Project Prioritization

	Bikeway Type	Project Name	From	To	Connec-tivity	Activity Centers	Transit	Schools	Public Input	Collis-ions	Score Total
					WEIGHT						
					3	3	2	2	1	1	
Tier 1	SLM	Overland Ave	Playa St	Culver Blvd	2	2	1	2	2	2	21
	BL/SLM	Washington Blvd	Walnut Ave	Fairfax Ave	2	2	1	2	2	2	21
	BFS	Farragut Dr/ Franklin Ave	Duquesne Ave	Elenda St	2	2	0	2	2	2	20
	BR/L/SLM	Jefferson Blvd	Sepulveda Blvd	E City Limit	1	2	2	1	2	2	18
	BFS	Braddock Dr	Sawtelle Blvd	Irving Pl	1	2	0	2	2	2	18
	BR	Overland Ave	Culver Blvd	Venice Blvd	2	2	1	0	1	2	15
Tier 2	BR/SLM	Culver Blvd	Huron Ave	Venice Blvd	2	2	0	0	2	2	16
	BFS	Higuera St	Washington Blvd	Jefferson Blvd	2	2	0	0	2	2	16
	BFS	Van Buren Pl	A St	Lucerne Ave	0	2	1	2	2	1	15
	SLM	Duquesne Ave	Braddock Dr	Jefferson Blvd	0	2	0	2	2	1	14
	SLM/BL	Sawtelle Blvd	Venice Blvd	Overland Ave	2	1	1	0	1	2	13
	BR	Playa St	Overland Ave	Slauson Ave	0	2	2	0	1	2	12
	BL	National Blvd	N City Limit	Washington Blvd	2	0	2	0	2	1	12
	BL	Washington Pl	Washington Blvd. (east end)	Washington Blvd (west end)	0	2	0	1	1	2	12
	BFS	Helms Ave	Washington Blvd	National Blvd	2	2	2	0	0	1	12
	BFS	Wesley St	National Blvd	Higuera St	2	1	2	1	1	0	12
	BFS	Slauson Ave	Jefferson Blvd	Mc Donald St	0	2	2		1	2	12
	BFS	Irving Pl	Lucerne Ave	Culver Blvd	0	2	0	2	1	1	12
	BFS	Elenda St	Washington Blvd	Farragut Dr	0	1	0	2	2	1	12
	BFS	Lucerne Ave	Higuera St	Duquesne Ave	1	0	1	1	2	1	11

	Bikeway Type	Project Name	From	To	Connec-tivity	Activity Centers	Transit	Schools	Public Input	Collis-ions	Score Total
	BRS/L/R/SLM	Hannum Ave	Sawtelle Blvd	Slauson Ave	0	2	0	1	1	1	10
	BFS	Harter Ave	S. City Limit	Washington Blvd	2	0	0	2	0	1	10
	BFS	Huron Ave	Braddock Dr	Venice Blvd	2	0	0	2	0	1	10
	BFS	Kinston Ave	Rhoda Way	Flaxton St		2	0	1	1	1	10
Tier 3	SLM	Centinela Ave	Washington Pl.	Washington Blvd.	0	1	1	0	2	1	9
	SLM/BR	Sepulveda Blvd	Ballona Creek	Green Valley Cir	0	1	0	1	2	0	8
	BL	Green Valley Cir	Centinela Ave	Sepulveda Blvd	0	2	2	0	0	1	8
	BFS	Fox Hills Dr	Hannum Ave	Green Valley Cir	0	2	2	0	0	1	8
	BFS	Madison Ave	Washington Blvd	Farragut Dr	0	2	0	0	1	1	8
	BR/L	Centinela Ave	Mesmer Ave	Green Valley Cir	0	1	1	0	1	1	7
	BFS	Rhoda Way	Cota St	Ocean Dr	0	2	0	1			6
	BFS	Cota St	Ocean Dr	Jefferson Blvd	0	2	0	0	0	1	6
	BFS	McDonald St	City Limit/Emporia Ave	Sawtelle Blvd	1	0	0	1	1	0	6
	BFS	Girard Ave	Venice Blvd	Washington Blvd	0	0	0	2	0	1	6
	BFS	Malat Way	Sawtelle Blvd	Bush Way	0	0	0	2	0	1	6
	BFS	Berryman Ave	Segrell Way	Hayter Ave	0	0	0	2	1	0	6
	BL	Buckingham Pkwy	Hannum Ave.	Green Valley Cir.	0	1	1	0	0	1	5
	BR	Adams Blvd	N City Limit	Fairfax Ave	1	0	0	0	0	1	4
	BFS	Flaxton St	Overland Ave	Kinston Ave	1	1	0	0	0	0	4
	BFS	Reid Ave	Washington Blvd	Syd K. Park	0	2	0	0	0	0	4
	BFS	Ocean Dr	Cota St	Overland Ave	0	1	0	1	0	0	4
	BFS	Beethoven St	Washington Blvd intersection		1	0	0	0	0	1	4

	Bikeway Type	Project Name	From	To	Connec-tivity	Activity Centers	Transit	Schools	Public Input	Collis-ions	Score Total
	BFS	Matteson Ave	Tilden Ave	Girard Ave	0	0	0	2	0	0	4
	BFS	Hayter Ave	Berryman Ave	Sawtelle Blvd	1	0	0	2	1	0	4
	BR	Bristol Pkwy	Slauson Ave	Centinela Ave	0	2	2	0	0	0	4
	BFS	Jacob St	Helms Ave	Reid Ave	1	0	1	0	0	0	3
	BFS	Lenawee Dr	Rodeo Rd	Wrightcrest Ave	0	2	0	0	1	0	3
	BFS	Wrightcrest Ave	Lenawee Dr	Blair Hills Park	0	2	0	0	1	0	3
	BR	Bush Way	Malat Way	Hannum Ave	0	0	0	1	0	0	2
	BFS	McLaughlin Ave	N City Limit	S City Limit	1	0	0	0	0	0	2
	BL	A St	Irving Pl	Van Buren Pl	0	1	0	1	0	0	2
	BFS	Canterbury Dr	Hannum Ave	Green Valley Cir	0	0	0	0	0	1	2
	BFS	Tilden Ave	Washington Blvd	Venice Blvd	0	0	0	0	0	1	2

SLM – Sharrow (Shared Lane Marking), BFS – Bicycle Friendly Street, BL – Bike Lane, BR – Bike Route, PA – Pedestrian Area, PC – Pedestrian Corridor

Table 6-3: Pedestrian Project Prioritization

	Facility Type	Project Name	Limit 1	Limit 2	Connect-ivity	Activity Centers	Transit	Schools	Public Input	Collisions	Score Total
					Weight						
					3	3	2	2	1	1	
Tier 1	PC	Braddock Dr	Sawtelle Blvd	Irving Pl	2	2	1	2	2	2	22
	PC	Overland Ave	Venice Blvd	Playa St	2	2	1	2	2	2	22
	PC	Washington Blvd	Walnut Ave	Fairfax Ave	2	2	2	1	2	1	21
	PC	Culver Blvd	Sawtelle Blvd	Washington Blvd	2	2	1	1	2	2	20
	PC	Elenda St/Girard Ave	Venice Blvd	Farragut Dr	1	2	1	2	2	2	19
Tier 2	PC	Irving Pl/Van Buren Pl	A Street	Lucerne Ave	2	2	1	1	2	0	18
	PC	Farragut Dr	Duquesne Ave	Elenda St	2	1	0	2	1	1	15
	PC	Sepulveda Blvd	Venice Blvd	Jefferson Blvd	1	2	0	2	1	1	15
	PC	Huron Ave	Venice Blvd	Braddock Dr	1	1	0	2	2	2	14
	PC	Sawtelle Blvd	Venice Blvd	Braddock Dr	0	2	1	1	2	2	14
	PC	Washington Place	Albright Ave	Washington Blvd	2	1	1	0	2	0	13
	PC	Wesley St	National Blvd	Higuera St	2	0	0	2	0	2	12
	PC	Lucerne Ave	Higuera St	Duquesne Ave	2	0	1	0	1	2	11
	PA	Expo Light Rail Station	Venice Blvd	Wesley St	0	2	0	0	2	2	10
	PA	*Costco* Shopping area	Walnut Ave	Glencoe Ave	1	1	1	1	0	0	10
	PA	*Target/Bed Bath & Beyond* (Jefferson / Sepulveda)	Kinston Ave	Playa St	2	0	0	1	0	0	8
	PA	Downtown Culver City	Madison Ave	Main St	0	1	0	2	1	0	8
	PA	Jefferson Blvd & Overland Ave (intersection)	Jefferson Blvd	Overland Ave	0	0	0	0	2	2	4

PA – Pedestrian Area, PC – Pedestrian Corridor

6.4. Cost Assumptions

Planning level cost estimates include both capital and maintenance costs as shown in Table 6-4. Cost assumptions include capital costs, but do not include maintenance. The cost estimates do not include some supplemental facilities that may depend on site-specific conditions. For instance, bicycle lane costs do not include treatments at intersections, which may depend on the presence of traffic signals and loop detectors. The City will refine the cost estimates during a project design phase.

Table 6-4: Cost Assumptions

Facility Type	Cost
Capital Cost	
Bicycle Path (along flood control channel or rail corridor)	$2,640,000/mile
Bicycle Path (in park, short connector no crossings)	$500,000/mile
Bicycle Lanes (may include signage, striping, and pavement markings)*	$28,000 / mile
Bicycle Route (may include signage and pavement markings)	$20,000 / mile
Bicycle Friendly Streets	$30,000 / mile
Maintenance Costs (Annual)	
Bicycle Path	$10,000 / mile
Bicycle Lanes / Bicycle Route	$3,500 / mile
Bicycle Friendly Streets	$2,500 / mile

**Cost estimates do not include intersection treatments, such as loop detectors and restriping vehicular lanes.*

Table 6-5: Total Capital Cost of Proposed Network

Facility Type	Length (mi)	Unit Cost	Total Cost
Proposed Bicycle (Multi-Use) Path	0.42	--	Metro funding
Proposed Bicycle Lanes	6.5	$28,000 / mile	$182,000
Proposed Sharrows	9.73	$28,000 / mile	$272,440
Proposed Bicycle Routes	5.61	$20,000 / mile	$112,200
Proposed Bicycle Friendly Streets	14.62	$30,000 / mile	$438,600
Total	**36.88**		**$1,005,240**

6.5. First Tier Projects

The primary component of Chapter 6 is ten (five bicycle, five pedestrian) high priority project sheets. The Plan highlights the following ten projects because of their importance to the network.

6.5.1. Top Priority Project

One project rose to the top of Culver City's bicycle and pedestrian connections through the public input process: establishing a major bikeway along one of the major arterials (Culver Boulevard or Washington Boulevard) accessing Downtown and continuing on to the Expo station. This Plan analyzed both Culver and Washington Boulevards for bike lane and sharrow feasibility. Due to the current State design guidelines, Culver Boulevard and sections of Washington Boulevard cannot accommodate bike lanes or sharrows without significant physical modifications and/or roadway striping changes to the current road configurations. Plans to implement such a project in the future are in development as a commitment to the values expressed in the vision statement of this Plan and as a result of strong public support.

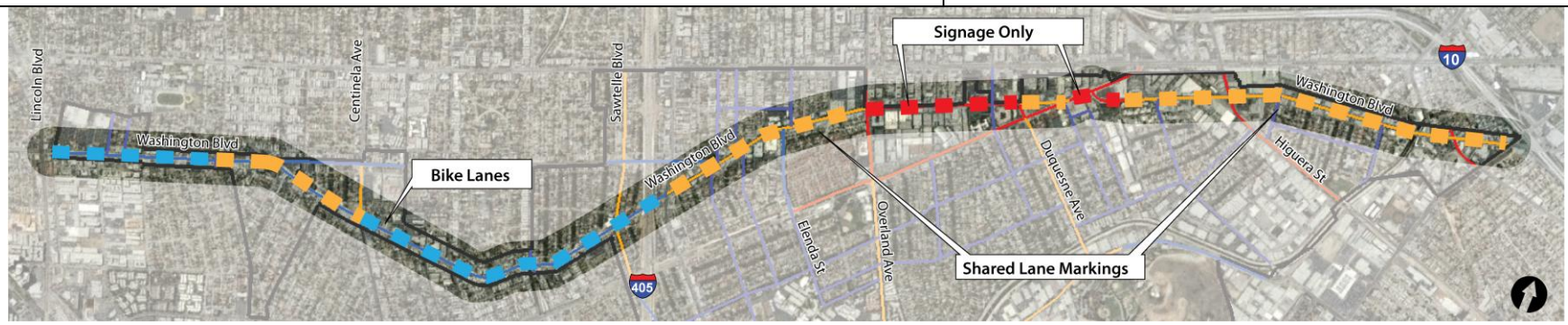
6.5.2. Bicycle and Pedestrian Projects

The high priority project sheets include a description of the project area and issues, a listing of specific improvement recommendations, a cost estimate, an overview map of the project area, and conceptual designs of each of the bicycle/pedestrian improvement recommendations. The cost estimates provided are based on preliminary planning-level concepts. The City will refine the cost estimates during a project design stage.

The City will try to implement these projects in the rough order of their prioritization, tier, and availability of full funding. The BPMP recognizes that funding, and other factors like future development may allow some projects to finish sooner than others. These rankings are not the final implementation order, but a guide to direct the City as funding and opportunities arise.

Bicycle Project 1: Washington Boulevard: Walnut Avenue to Fairfax Avenue

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Washington Boulevard is the longest (5.6 miles) continuous road in Culver City. It provides direct connectivity to many of Culver City's most frequently visited destinations. In most segments, Washington Boulevard is a four lane road with street parking and center turn lane. Some minor segments drop street parking or the center turn lane converts to a median or is dropped completely. The speed limit on Washington Boulevard is 35 mph. Challenges for bicyclists include deteriorated pavement in some areas and a lack of designated bicycle facilities. This high priority project ranked #1 (tie) out of 50 bicycle projects, and received 22 points out of 24 possible points in the priority ranking process.	• Stripe bike lanes where recommended (see project extent map) • Stripe sharrows on applicable segments where road width does not accommodate bike lanes • Install signage/wayfinding • Add bicycle route signage where sharrows and lanes cannot be installed • Intersection improvement at McLaughlin **Cost estimate $153,000**



Site Photo: Washington Boulevard (eastbound) *Simulation*	Design Guide & Standards
 This photo simulation depicts a portion of Washington Boulevard as it may appear with bike lanes striped. Some portions of Washington Boulevard have enough width to stripe bicycle lanes as they are. Due to road width or other restrictions, bike lanes are not recommended on all sections of Washington Boulevard. Where permanent street parking exists, the City may install sharrows.	Bike Lanes – Design Guide, Section 1.3 Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 2: Overland Avenue: Culver Boulevard to Playa Street

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Overland Avenue tied for the top ranking with Washington Boulevard and scored 22 out of 24 in the priority ranking process. Overland Avenue serves Sony Studios, Veteran's Park/Senior Center, Teen Center, Culver City Library, and other major employment areas. Overland is a five lane road (with center turn lane [CTL] or median) for the most part between Venice Boulevard and Freshman Drive. South of Freshman Dr. it becomes a four lane road with no CTL/median. The speed limit on Overland is 35 mph except in school zones. Most of Overland allows on-street parking.	• Stripe sharrows • Install signage/wayfinding **Cost estimate: $56,000**



Site Photo: Overland Avenue & Culver Boulevard	Design Guide & Standards
 Overland Avenue does not have the road width for bike lanes to be striped. Where permanent street parking exists, the City should install sharrows.	Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 3: Farragut Drive/Franklin Avenue: Duquesne Avenue to Elenda Street

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Farragut Drive/Franklin Avenue is one of the more significant residential roads in Culver City with respect to connectivity and continuity. Farragut/Franklin provides direct access to Culver City High School, Middle School and Farragut Elementary. Retrofitting the Jackson-Jasmine pathway provided access to bicycles and improved Farragut/Franklin as a medium distance route for bicyclists and pedestrians. The speed limit along Farragut Drive is 25 mph. The Jackson-Jasmine gate needs further improvement to enable better movement of bicyclists and pedestrians. The intersection at Overland Avenue needs bicycle detection. Farragut/Franklin ranked #3 on the priority list and scored 20 out of a possible 24 points in the priority ranking process.	• Jackson-Jasmine pathway improvement • Bicycle-sensitive detection at Overland Avenue intersection • Install signage/wayfinding **Cost Estimate: $27,000**



Site Photo: Jackson Farragut gate	Design Guide & Standards
 Farragut/Franklin is a comfortable road segment for bicyclists and, with a few small improvements, will be considerably more enjoyable for bicyclists to use. One primary obstacle for bicyclists wanting to use Farragut is the access gate between Jackson Avenue and Jasmine Avenue. The pathway has recently been updated, with two of the poles being removed. This is a step in the right direction. Ultimately, the pathway should be fitted with bollards for a more modern approach.	Bicycle Friendly Street – Design Guide, Section 1.6.2 Bicycle Detection – Design Guide, Section 1.1.2

Bicycle Project 4: Jefferson Boulevard: Sepulveda Boulevard to East City Limit

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Jefferson Boulevard is a high-speed arterial road serving north and south Culver City. Jefferson is a primary access point to West Los Angeles College, Baldwin Hills Scenic Overlook Park and the *Target/Bed Bath & Beyond*, *Ross* shopping area. Speed limits vary between 30-40 mph on Jefferson. Jefferson is a five lane road with street parking intermittently permitted throughout its length in the City. On some portions of Jefferson the outside lane is wide enough to be shared by motor vehicles and bicyclists, but in other areas bicyclists must position themselves towards the center of the lane to discourage motor vehicles from passing them at an unsafe distance. Obstacles on Jefferson include pavement conditions in some locations, lack of bicycle facilities and signage, and traffic speeds. Jefferson ranked #4 on the priority list and scored 19 out of a possible 24 points in the priority ranking process.	• Stripe bike lanes • Stripe sharrows • Install signage/wayfinding • Add bicycle route signage Lighting at Slauson underpass **Cost estimate: $68,600**



Site Photo: Jefferson Boulevard at Leahy Street	Design Guide & Standards
 Jefferson Boulevard is a good street for more focused signage to promote "Share the Road" because of its diversity of land uses and road widths.	Bike Lanes – Design Guide, Section 1.4 Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 5: Braddock Drive, Bicycle Friendly Street: Sawtelle Boulevard to Irving Place

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Braddock Drive is the longest, uninterrupted residential street in Culver City. Because of its length, it is commonly used by motor vehicles as an alternative to Washington Boulevard, Culver Boulevard, or Jefferson Boulevard. The City implemented traffic calming measures in the past (e.g. installation of speed humps) to dissuade this behavior, but may do more to reprioritize the street and further discourage spill-over traffic. The speed limit on Braddock is 25 mph. Obstacles to bicyclists on Braddock include lack of bicycle detection at its intersections of Sepulveda Boulevard and Overland Avenue, and spill-over traffic. Wide portions (e.g. Carlson Park) leave room for improvement. Braddock ranked #5 on the priority list and scored 17 out of a total 24 points in the priority ranking process.	• Bicycle-sensitive detection at Overland Avenue and Sepulveda Boulevard intersections • Install signage/wayfinding • Install sharrows • Traffic calming where appropriate **Cost estimate: $51,000**



Site Photo: Braddock Drive at Sepulveda Boulevard	Design Guide & Standards
 Braddock Drive can be improved for bicyclists by adding bicycle detector loops at its intersections with major arterials. The image to the left shows where bicycle detection loops can be installed to allow bicyclists shorter waiting periods at major intersections. The City may analyze additional traffic calming measures as part of a future traffic engineering study to determine possible treatments to support designation as a Bicycle-Friendly Street.	Bicycle Friendly Street – Design Guide, Section 1.6.2 Sharrows – Design Guide, Section 1.6.1

Pedestrian Project 1: Braddock Drive: Sawtelle Boulevard to Irving Place

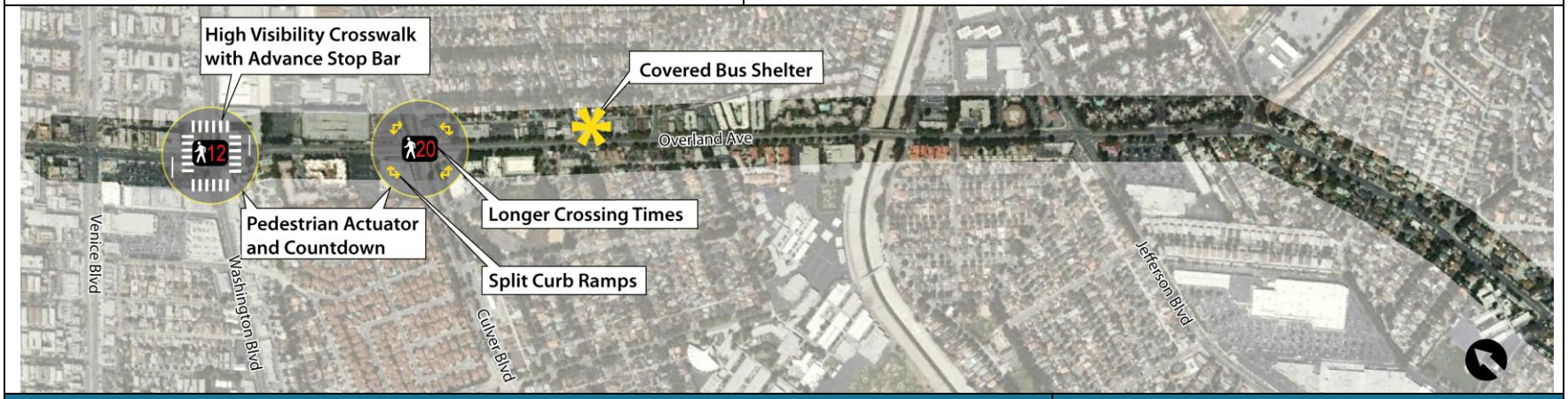
Description of Area and Issues	Improvement Recommendations and Cost Estimate
As the longest residential street in Culver City, Braddock Drive is one of the most popular corridors in the pedestrian network. Much of Braddock's current configuration makes it a comfortable place to walk. Braddock provides access to the City's high school, middle school, several elementary schools, and community-oriented commercial corridors on Sepulveda and Overland and Downtown. Because of its continuity, motorists use it as an alternate road to avoid Washington, Culver or Jefferson Boulevards. The net-effect of this spillover traffic can make Braddock an uninviting environment. Braddock is a major pedestrian route for school-bound children, making its intersections at major arterials a place of special consideration. Braddock's intersections with Overland and Sepulveda will be considered for signal and marking improvements. Braddock ranked #1 among pedestrian projects, scoring 22 out of a total 24 points in the priority ranking process.	• At Huron Avenue, Elenda Street and Irving Place (school intersections) – install high visibility crosswalk • Crossing improvements at Overland and Sepulveda Boulevards • Install a curb ramp at Le Bourget (on east side of intersection) at Carlson Park • Stripe crosswalk at southeast side of Motor intersection **Cost estimate: $17,200**



Site Photo: Braddock Drive at Huron Avenue	Design Guide & Standards
 Braddock Drive can be improved for pedestrians by enhancing crosswalks at high traffic areas. The picture to the left shows the intersection of Braddock Drive and Huron Avenue, which is a main point of pedestrian access to the high school and middle school. At present, the crosswalk features the minimum yellow transverse line striping. With an upgrade to high visibility striping, the crosswalk would become more prominent and vehicles would have an easier time recognizing the crosswalk as a pedestrian space.	Crosswalks – Design Guide, Section 1.10.11 Curb Ramps – Design Guide, Section 1.11.4

Pedestrian Project 2: Overland Avenue: Venice Boulevard to Playa Street

Description of Area and Issues	Improvement Recommendations and Cost Estimate
Overland Avenue services major areas of employment, and commercial and civic activity in Culver City. At its intersections with Washington Boulevard and Culver Boulevard, crossing may be difficult for some users due to the width of the road, traffic volumes, and pedestrian conditions in general. Overland also serves a significant portion of Culver City's senior population, including the Senior Center and private-assisted living residences. Overland tied with Braddock as the #1 pedestrian project, scoring 22 out of a total 24 points in the priority ranking process.	• At Culver - Move light/ped actuator closer to ramp. Split ramps • At Culver - Increase crossing distance time/pedestrian lead time • At Braddock – Covered bus shelter • At Washington - Higher visibility crosswalks • At Washington – Install pedestrian countdown • At Washington - Upgrade pedestrian actuators to latest approved designs **Cost Estimate: $18,900**



Site Photo: Overland Avenue and Culver Boulevard	Design Guide & Standards
 Overland is a heavily used street by pedestrians and motor vehicles alike. It connects some of Culver City's more bustling civic destinations. To enable expedited crossing by those with mobility impairments, pedestrian crossing actuators could be located closer to the ramp and a split ramp should be provided to shorten the street-crossing distance.	Crosswalks – Design Guide, Section 1.10.11 Pedestrian Countdown Signals – Design Guide, Section 1.11.1 Bus Shelter – Design Guide, Section 1.10.10

Pedestrian Project 3: Expo Light Rail Station Area

Description of Area and Issues	Improvement Recommendations and Cost Estimate
The Expo Light Rail Station may quickly become an area with one of the highest concentrations of pedestrian activity in all of Culver City. As the physical landscape changes to accommodate the light rail, Culver City needs to improve the built environment around the station to meet the needs of the pedestrians accessing the station. The Expo Light Rail Station ranked #3 on pedestrian projects, and scored 21 out of a total 24 points in the priority ranking process.	Install signage, wayfinding, and High Visibility Crosswalks up to ¼ mile radius from the Expo Light Rail Station to encourage/promote pedestrian connectivity to the Station **Cost Estimate: $14,650*** **Includes signage, wayfinding, and crosswalks*

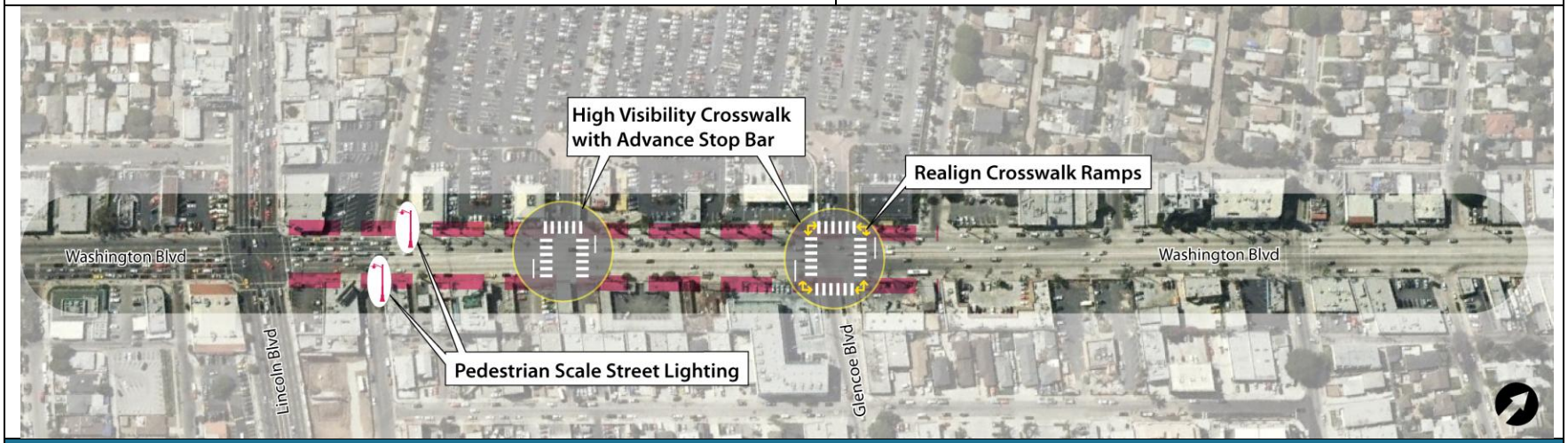


Design Guide & Standards

Crosswalks – Design Guide, Section 2.5 Signage – Design Guide, Section 1.5.5

Pedestrian Project 4: *Costco* Shopping Area

Description of Area and Issues	Improvement Recommendations and Cost Estimate
The *Costco* Shopping area has the highest concentration of bicycle and pedestrian collisions as reported through the years 2002-2007 (SWITRS). The area includes *Albertsons*, *In-N-Out*, and *Starbucks* and commercial corridor. The Costco Shopping area represents the western-most border of Culver City, terminating just half a block from Lincoln Boulevard. Improvements to the pedestrian environment in this area will help mitigate the effect of high traffic volumes along this portion of Washington Boulevard. The Costco Shopping area ranked #4 on pedestrian priority areas and scored 20 out of a total 24 points in the priority ranking process.	• Re-align ramps to coincide with crosswalks. • Consider separate pedestrian crossing signal • Establish high visibility crosswalk • Install pedestrian-scale street light • Install advanced stop bar at Glencoe and west shopping center entrance **Cost Estimate: $65,000**



Design Guide & Standards

Crosswalks – Design Guide, Section 1.10.11 Street Lighting - Design Guide, Section 1.10.9 Curb Ramps – Design Guide, Section 1.11.4

Pedestrian Project 5: Washington Boulevard: Walnut Avenue to Fairfax Avenue

Description of Area and Issues	Improvement Recommendations and Cost Estimate	
Washington Boulevard is the longest arterial road in Culver City and connects many important destinations, such as Downtown, the Expo Light Rail Station, *Costco*, etc. As a major arterial, its intersections are frequently wide, which may create crossing challenges for some pedestrians. Pedestrian crossings can be improved with several options, including modifying signal phases. Though generally not used for traffic efficiency, in high pedestrian areas "automatic green" may be explored after traffic engineering analysis. Field review found a great need for continued maintenance and debris removal. Some sections of Washington Boulevard are undergoing separate review/update through the Culver City Redevelopment Agency to become more pedestrian oriented. Washington Boulevard ranked #5 among all pedestrian projects and scored 19 out of a total 24 points in the priority ranking process.	*At Sony Studios:* • Explore placing planter boxes to provide buffer in between street trees from vehicular traffic *At Washington Place and Tilden* • Increase crossing time *At Sepulveda* • Curb extension • Pedestrian lead times on crossing	*At Inglewood* • Widen curb ramps and realign crosswalks with ramps • Improve pavement *At Centinela* • Repair pavement • Add additional signage **Cost Estimate: $17,300**



Design Guide & Standards

Planter Boxes – Design Guide, Section 1.10.5 Curb Ramps – Design Guide, Section 1.11.4

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6.6. Second Tier Projects

This section summarizes lower-priority projects included in the Bicycle and Pedestrian Master Plan. The City can implement these improvements upon completing the Tier 1 projects or if provided the opportunity and funding.

6.6.1. Bikeway Projects

Culver Boulevard

Culver Boulevard will become a bike route between Huron Avenue and Overland Avenue, and from Duquesne Avenue to Washington Boulevard. Culver Boulevard will add sharrows between Overland Avenue and Duquesne Avenue. Currently, Culver Boulevard serves bicyclists along the Culver Boulevard Bike Path (on the median east of Elenda Street and west of Sawtelle Boulevard). This bike route will serve as an extension of that bike path.

Higuera Street

Higuera Street is a Proposed Bicycle Friendly Street between Washington Boulevard and Jefferson Boulevard. Higuera will act as an important connector between the popular Washington and Jefferson Boulevard arterials, the Ballona Creek Bike Path, and Expo Light Rail Transit Station. Higuera currently features some elements of traffic calming and plays a small part of the proposed connection between East Culver City, the Expo Bike Path, and Downtown.

Van Buren Place

Van Buren Place is a Proposed Bicycle Friendly Street between A Street and Lucerne Avenue. Van Buren is a part of a one-way couplet with Irving Place that enables bicycle and pedestrian traffic between Downtown, East Culver City, and the Ballona Creek Bike Path. This route serves as an alternative route for individuals wishing to travel on roads with lower vehicle volumes.

Duquesne Avenue

Duquesne Avenue will add sharrows between Braddock Drive and Jefferson Boulevard. This corridor serves as a primary way for cyclists to move to and from the Ballona Creek Bike Path, Downtown, and to those accessing West LA College and Culver City Park.

Sawtelle Boulevard

Sawtelle Boulevard will add sharrows and bike lanes between Venice Boulevard and Overland Avenue. Sawtelle Boulevard is a secondary arterial that connects to Braddock Drive, the Culver City terminus of the Culver Boulevard Bike Path and the Ballona Creek Bike Path (in the City of Los Angeles).

Playa Street

Playa Street will become a bike route as it extends south from Overland Avenue to Slauson Avenue. This corridor accesses residential and commercial areas.

National Boulevard

National Boulevard will receive a Class I bike path as a part of the Expo Light Rail Transit project. The street will become a bike route from Washington Boulevard to Wesley Street, and will accommodate a bike lane

between Washington Boulevard and Venice Boulevard. As the Expo project develops, National Boulevard will be a critical right of way for bicyclists, as it connects the Expo Bike Path to the Venice Boulevard Bike Lane, serving much of West Los Angeles, Santa Monica and Culver City.

Washington Place

Washington Place will add a bike lane between Washington Boulevard and Albright Avenue (east end) and Washington Boulevard and Grandview Boulevard (west end). Washington Place is a corridor that essentially parallels Washington Boulevard, but traveling in a more direct route. This makes it a desirable alternative route for those travelling along the Washington Boulevard corridors and between east-west Culver City.

Helms Avenue

Helms Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and the Expo Bike Path. This small segment of the bikeway network will connect the sharrows on Washington Boulevard with the Expo Bike Path and the Ballona Creek Bike Path.

Wesley Street

Wesley Street is a Proposed Bicycle Friendly Street between National Boulevard and Higuera Street. Wesley is an important connector between East Culver City, the Expo Bike Path, and Downtown Culver City. During the school year, Wesley sees increased car traffic in the mornings and afternoons from student drop-off and pick-up, resulting in car queuing. At other times of day, Wesley is a low-volume street and ideal for bicyclists looking to avoid Washington, National, and Culver Boulevards.

Slauson Avenue

Slauson Avenue is a Proposed Bicycle Friendly Street between Jefferson Boulevard and McDonald Street. This portion of Slauson will serve as a residential route for the surrounding neighborhood

Irving Place

Irving Place is a Proposed Bicycle Friendly Street as a one-way street between Lucerne Avenue and Culver Boulevard. The street will move cyclists from the Ballona Creek Bike Path via Duquesne Avenue to Downtown Culver City. Irving experiences increased traffic volumes during student drop-off and pick up at Linwood Howe Elementary School. Irving Place is also the terminus of Culver City's longest Proposed Bicycle Friendly Street, Braddock Drive.

Elenda Street

Elenda Street is a Proposed Bicycle Friendly Street between Washington Boulevard and Farragut Drive. Elenda is the primary bikeway providing access to Culver High School, Culver Middle School, and Farragut Elementary School. Elenda also provides bikeway proximity to the Culver Boulevard Bike Path.

Lucerne Ave

Lucerne Avenue is a Proposed Bicycle Friendly Street between Higuera Street and Duquesne Avenue. Lucerne is a low-volume street and is part of a series of other low-volume streets providing an alternative to Washington and Culver Boulevards between East Culver City and Downtown.

Hannum Avenue

Hannum Avenue is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Playa Street. At its intersection with Playa, improvements to the current cul-de-sac permit through-traffic for bicycle connection and include a bicycle/pedestrian actuator. South of Playa Street, Hannum becomes a bike route until the State Route 90 freeway overpass, after which it will have either bike lanes or sharrows based on the road configurations. Hannum serves commercial, residential, and school-bound traffic.

Harter Avenue

Harter Avenue is a Proposed Bicycle Friendly Street between the south city limit and Washington Boulevard. The road provides access to schools, the Culver Boulevard Bike Path, the Ballona Creek Bike Path via Sepulveda Boulevard, and Tellefson Park. At its intersection with Washington Boulevard, Harter Avenue continues north and becomes Tilden Avenue This intersection will require improvements for the route to be a viable cross town option. Linking to the bike lane on Venice Boulevard is important for regional bikeway connectivity.

Huron Avenue

Huron Avenue is a Proposed Bicycle Friendly Street between Braddock Drive and Venice Boulevard. The road connects to many major arterials and allows access to the Culver Boulevard Bike Path. At Washington Boulevard, the Huron Avenue Bicycle Friendly Street will require intersection improvements to facilitate north/south bicyclist movement.

Kinston Avenue

Kinston Avenue is a Proposed Bicycle Friendly Street between Rhoda Way and Flaxton Street. The Kinston Avenue bikeway takes advantage of a current cul-de-sac with bollards that restricts vehicle movement at its intersection with Flaxton Street. Currently, the bollards permit pedestrian through traffic, but need retrofitting to facilitate bicyclists moving eastward on Flaxton Street. To the south the road connects to El Rincon Elementary School and Blanco Park. The recreational path at Blanco Park is currently closed during school hours.

6.6.2. Pedestrian Projects

Irving Place/Van Buren Place

Irving Place/Van Buren Place will receive the Pedestrian Corridor designation between A Street and Lucerne Avenue. These corridors will receive sidewalk maintenance, and a high visibility crossing and appropriate traffic calming signage added at Linwood Howe Elementary School, subject to traffic engineering analysis. These recommendations come as a collaborative effort through a separate Safe Routes to School planning process.

Farragut Drive

Farragut Drive will receive the Pedestrian Corridor designation between Duquesne Avenue and Elenda Street. Farragut Drive provides direct access from Duquesne Avenue to Culver City High School, Culver City Middle School, and Farragut Elementary School along a low-volume street.

Sepulveda Boulevard

Sepulveda Boulevard will receive the Pedestrian Corridor designation between Venice Boulevard and Jefferson Boulevard/Sawtelle Boulevard. The Sepulveda Corridor provides access to community servicing businesses.

Huron Avenue

Huron Avenue will receive the Pedestrian Corridor designation between Venice Boulevard and Braddock Drive. Huron Avenue provides a controlled pedestrian crossing with Culver Boulevard, which benefits students walking from nearby school.

Sawtelle Boulevard

Sawtelle Boulevard will receive the Pedestrian Corridor designation between Venice Boulevard and Braddock Drive. Sawtelle Boulevard serves as a low-volume alternative to Sepulveda Boulevard.

Washington Place

Washington Place will receive the Pedestrian Corridor designation between Albright Avenue and Washington Boulevard. This corridor provides access to Tellefson Park, residential areas, and commercial areas.

Wesley Street

Wesley Street will receive the Pedestrian Corridor designation between National Boulevard and Higuera Street. Wesley Street provides an alternative route to Washington Boulevard. Via other streets, Wesley provides the most direct pedestrian access from East Culver City to Culver City High School, Culver City Middle School, and Farragut Elementary School.

Lucerne Avenue

Lucerne Avenue will receive the Pedestrian Corridor designation between Higuera Street and Duquesne. Standard improvements include signage and sidewalk improvements.

Costco Shopping Area

The *Costco* Shopping Area will receive the Pedestrian Area designation between Walnut Avenue and Glencoe Avenue. This extended area needs pedestrian enhancements to promote walking from and to the adjacent residential neighborhoods and between commercial businesses.

The *Target/Bed, Bath & Beyond* Shopping Area

The *Target/Bed, Bath & Beyond* Shopping Area (Jefferson/Sepulveda Boulevards) will receive the Pedestrian Area designation between Kinston Avenue and Playa Street. This extended area needs pedestrian enhancements to promote walking from and to the adjacent residential neighborhoods and between commercial businesses.

Downtown Culver City

Downtown Culver City will receive the Pedestrian Area designation between Madison Avenue and Main Street. As the primary pedestrian destination in Culver City, Downtown will continue to undergo observation for increased pedestrian friendliness and accessibility.

Jefferson Boulevard and Overland Avenue Intersection

The public identified the Jefferson Boulevard at Overland Avenue intersection as requiring specific attention for pedestrian enhancements. This Plan will evaluate that the intersection for opportunities to enhance pedestrian convenience.

6.7. Third Tier Projects

This section summarizes the lowest-priority projects included in the Bicycle and Pedestrian Master Plan. The City can implement these improvements upon completing the Tier 1 and Tier 2 projects, or if provided the opportunity and funding.

Centinela Avenue

Centinela Avenue will add sharrows between Washington Place and Washington Boulevard, which will connect its two limits while providing accessibility to neighboring residential and commercial areas. As a major arterial within the region, placing sharrows on this section of Centinela may encourage the City of Los Angeles to install bicycle facilities in their jurisdiction. Centinela Avenue will be a bike route from Mesmer Avenue to south of Bristol Parkway, and will receive a bike lane from south of Bristol Parkway to Green Valley Circle. This segment connects to activity centers and a transit hub.

Sepulveda Boulevard

Sepulveda Boulevard will become a bike route between Jefferson Boulevard/Playa Street and Centinela Avenue. The City will add sharrows along Sepulveda Boulevard from Jefferson Boulevard/Playa Street to Venice Boulevard (within City limits) where allowed by CaMUTCD, e.g. segments within allowable speed limits with on-street parking. Sepulveda Boulevard is a major arterial that connects to some of Culver City's most prominent commercial areas and recreational opportunities. Current conditions make it a more viable option for confident bicyclists.

Green Valley Circle

Green Valley Circle will add a bike lane between Centinela Avenue and Sepulveda Boulevard. This bike lane allows bicyclists to avoid Centinela Ave when accessing the newly refurbished Westfield Culver City shopping area and Westfield Culver City Transit Center.

Fox Hills Drive

Fox Hills Drive is a Proposed Bicycle Friendly Street between Hannum Avenue and Green Valley Circle. This small Bicycle Friendly Street will provide signage and bikeway access to the Westfield Shopping center and Westfield Culver City Transit Center.

Madison Avenue

Madison Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Farragut Drive. This short bikeway will connect two of Culver City's most important arterial roads (Washington and Culver Boulevards) and neighborhood connectors (Braddock Drive) with the Bicycle Friendly network.

Rhoda Way

Rhoda Way is a Proposed Bicycle Friendly Street between Cota Street and Ocean Drive. Rhoda Way provides residential connectivity to the Ballona Creek Bike Path and Lindberg Park.

Cota Street

Cota Street is a Proposed Bicycle Friendly Street between Ocean Drive and Jefferson Boulevard. Cota Street provides residential connectivity to the Ballona Creek Bike Path, Lindberg Park, and the *Target/Bed Bath & Beyond* commercial shopping area.

McDonald Street

McDonald Street is a Proposed Bicycle Friendly Street between Emporia Avenue and Sawtelle Boulevard. McDonald Street serves the residential neighborhood by connecting to Slauson Avenue and the Sawtelle Boulevard Bikeways.

Girard Avenue

Girard Avenue will become a bikeway continuation of the Elenda Street Bicycle Friendly Street. Extending Elenda through Washington Boulevard will provide important connectivity from the Venice Boulevard bike lane to Culver High School and Middle School. This route also serves La Ballona Elementary school, making it a valuable bikeway for parents and students going to school by bicycle.

Malat Way

Malat Way is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Bush Way. This short, one block route provides route connectivity. Malat Way will become an alternative route to the Sepulveda Boulevard and Overland Avenue bikeways when the Blanco Park Bike Path opens to the public during non-school hours.

Buckingham Parkway

Buckingham Parkway will add a bike lane between Hannum Avenue and Green Valley Circle. This bike lane provides nearby residential access to Fox Hills Park, Westfield Shopping Area, and the Westfield Culver City Transit Station.

Adams Boulevard

Adams Boulevard will become a bike route from the north city limit to Fairfax Avenue. This short segment provides regional bikeway connectivity for cyclists between Culver City and the City of Los Angeles.

Flaxton Street

Flaxton Street is a Proposed Bicycle Friendly Street between Overland Avenue and Kinston Avenue. Flaxton picks up from the Kinston cul-de-sac planned for improvements, which will allow bicyclists through-movement to Overland Avenue, or south on Kinston towards Blanco Park.

Reid Avenue

Reid Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Syd Kronenthal Park. This short bikeway will connect the recommended sharrows on Washington Boulevard with the park, the Expo Bike Path and Ballona Creek Bike Path.

Ocean Drive

Ocean Drive is a Proposed Bicycle Friendly Street between Cota Street and Overland Avenue. Ocean Drive provides residential access to Lindberg Park and the Ballona Creek Bike Path.

Matteson Avenue

Matteson Avenue is a Proposed Bicycle Friendly Street between Tilden Avenue and Girard Avenue. This short bikeway will serve parents and students accessing La Ballona Elementary School and provide neighboring residential neighborhood a short alternative to Washington Boulevard.

Hayter Avenue

Hayter Avenue is a Proposed Bicycle Friendly Street between Berryman Avenue and Sawtelle Boulevard. This short segment provides access to El Marino Elementary School and connects to an I-405 freeway crossing at Port Road.

Bristol Parkway

Bristol Parkway will become a bike route between Slauson Avenue and Centinela Avenue. This road accesses several shopping centers and connects with public transit service.

Jacob Street

Jacob Street is a Proposed Bicycle Friendly Street between Helms Avenue and Reid Avenue. This is a residential alternative for bicyclists who do not want to travel along Washington Boulevard. Jacob Street will provide secondary access to the Expo Bike Path.

Lenawee Drive

Lenawee Drive is a Proposed Bicycle Friendly Street between Rodeo Road and Wrightcrest Avenue. The road passes through a residential and industrial area, and serves as a lower-volume alternative route to La Cienega Boulevard. Lenawee Drive provides access to Blair Hills Park via Wrightcrest Drive.

Wrightcrest Drive

Wrightcrest Drive is a Proposed Bicycle Friendly Street between Lenawee Drive and Blair Hills Park. The road passes through a residential road and provides access to the park.

Bush Way

Bush Way is a Proposed Bicycle Friendly Street between Malat Way and Hannum Avenue. Bush Way is a short connector for bicyclists traveling on Hannum Avenue and is an alternate connection between Sepulveda Boulevard and Overland Avenue.

McLaughlin Avenue

McLaughlin Avenue is a Proposed Bicycle Friendly Street from its extents at the City's north and south limits. This short segment is a part a cooperative effort between Culver City and the City of Los Angeles to provide regional bikeway connectivity for cyclists.

Segrell Way

Segrell Way is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Slauson Avenue. Segrell provides residential connectivity to El Marino Elementary School and is a low-volume alternate route to a segment of Sepulveda Boulevard.

A Street

A Street will add a bike lane between Irving Place and Van Buren Place. A Street is a short one-way connector between Irving and Van Buren, which run in opposite directions.

Canterbury Drive

Canterbury Drive is a Proposed Bicycle Friendly Street between Hannum Avenue and Green Valley Circle. This bikeway connects the multi-family residential neighborhood with the larger city network via Green Valley Circle and Hannum Avenue.

Tilden Avenue

Tilden Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Venice Boulevard. This bikeway provides a low volume alternative to Sepulveda Boulevard.

7. Enforcement, Education and Awareness Programs

Creating a city that supports and encourages its residents to bicycle and walk involves more than just infrastructure and amenity improvements. This chapter contains a discussion of enforcement, education & awareness policies and programs for Culver City.

The programs and policies discussed in this chapter require additional funding for implementation, as they are supplemental to the current City budget. Furthermore, staff cannot currently support these endeavors, and so these efforts must happen primarily through volunteers or supported through other means, such as grant funding. In some cases, these programs may expand the role of City staff if policies and programs fall within their purview upon implementation. Either current staff may take on more responsibilities or the City must hire additional staff to address the additional workload.

7.1. Enforcement Programs



Motorists, pedestrians and bicyclists alike are sometimes unaware of each other's rights as they travel city streets. Educating the public through enforcement policies will supplement the physical improvements made in Culver City. The California Vehicle Code (CVC), as enforced by the CCPD, protects pedestrians and bicyclists in the public right-of-way. For a review of Culver City Municipal Code (CCMC) affecting bicyclists and pedestrians, please refer to the existing conditions discussion in Chapter 3.

7.1.1. Targeted Enforcement

Targeted enforcement action along streets should focus on areas with high volumes of bicycle, pedestrian, and other non-motorized traffic (e.g. Downtown, Ballona Creek Bike Path, East Washington Boulevard and Culver Boulevard Bike Path, etc.). Law enforcement efforts could target locations where motorists and the public will become aware of bicycle/pedestrian laws and their penalties for violations.

Bicycle Patrol Unit

Culver City may explore with CCPD, local businesses and neighborhood groups opportunities to establish local Bicycle Patrol Units. Culver City's size and topography make many parts of it highly accessible by bicycle. A Bicycle Patrol Unit could be an official law enforcement unit, a private security guard patrol, or an expanded volunteer program. Bicycles are an excellent community-policing tool, as the public views officers on bikes as more approachable, thus improving trust and relations between the citizens and police.

Bicycle Patrol Units can work closely with citizens to address concerns before they become problems. Bicycle Patrol Units can have a direct impact on bicycle safety by enforcing bicycle traffic laws (e.g. wrong-way riding, sidewalk riding, obeying traffic controls, children wearing helmets, etc.), and providing bicycle safety education.



Portland bicycle patrol officer

Speed Limit Enforcement

Participants at the second public workshop expressed concern about high motor vehicle speeds. City staff can work with police to enforce speed limits on designated streets with bikeways, near schools, and in response to bicyclist/pedestrian complaints. This increases safety and may reduce crashes, which improves walking and bicycling conditions.

Speed Radar Trailer/Permanent Speed Signs

Speed Radar Trailers can help reduce speeds traffic and may help enforce speed limits in areas with speeding problems. Police set up an unmanned trailer that displays the speed of approaching motorists along with a speed limit sign. Speed trailers may be effective on busier arterial roads without bikeway facilities (Washington Boulevard, Jefferson Boulevard, Overland Avenue, etc.), or near schools with reported speeding. Speed trailers should be located in a position that mitigates its influence on bicycle traffic when placed on the road.



Speed trailer in use

Speed trailers work as both an educational and enforcement tool. By itself, the unmanned trailer educates motorists about their current speed in relation to the speed limit. As an alternative enforcement measure, the CCPD may choose to station an officer near the trailer to issue citations to motorists exceeding the speed limit. Radar trailers can transport easily to streets where local residents complain about speeding problems. However, motorists may not obey the speed limit without an officer present for enforcement.

Public Works Department staff may provide the management role for this program, working with the public and determine which locations are in most need. This program can administer randomly, cyclically, or as demand necessitates because of the speed trailers' portability.

7.2. Education Policies & Programs

The following section outlines the variety of education programs that can contribute to a bicycle and pedestrian community.

7.2.1. Child/School-based Education Programs

School-based bicycle and pedestrian education programs teach students about the rules of the road, proper use of bicycle equipment, bicycling skills, street crossing skills, and the benefits of bicycling and walking. These education programs typically receive support from a joint City/school district committee that includes appointed parents, teachers, student representatives, administrators, active bicyclists, CCPD and the Public Works Department. These programs can also incorporate into a Safe Routes to School Program, which Chapter 8 discusses in further detail.



Students participate in a safety exercise

Safety Handbook

Safety handbooks are part of a school-based bicycle and pedestrian safety program. These handbooks may include a circulation map of the campus and immediate neighborhood, suggested routes to school, crosswalk and crossing guard locations, signalized intersection locations, bicycle maintenance and use instructions, helmet wear instructions, street crossing instructions, and emergency and school numbers. The City or school district can publish the handbook for use at each school, in conjunction with a school-specific map.

Walking School Bus

Parent and neighborhood volunteers can escort children walking to school together in a "Walking School Bus" if parents are uncomfortable allowing their children to walk or bicycle alone to or from school. Children can join the "Walking School Bus" if the home runs along the route or at designated staging areas. The parents offer supervision and protection, and the group size makes the children more visible to traffic. Usually, one parent acts as the organizer and recruits other parents, neighbors, seniors or community volunteers to walk with the children. As in a motor carpool, the participants need to coordinate schedules and meeting places. Adults and children can wear safety vests or use other means to enhance visibility. Sometimes the adult pulls a wagon to carry the children's books and projects.



Children participate in a walking school bus

Certified Safe Routes to School Instructors can train volunteers. Supplemental training materials are available through the National Safe Routes to School partnership at www.saferoutes.org.

Bike Trains

Bike trains work exactly like the Walking School Bus program, but with children on bicycles. Parents and volunteers should select residential and low-traffic volume streets to get to school if sidewalks cannot accommodate multiple children.

7.2.2. Adult Cycling Skills Education

Most bicyclists learn to ride when they are children and do not have the opportunity to learn riding skills or safe road positioning. Adult bike skills training are an excellent way to improve both cyclist confidence and safety.

The League of American Bicyclists developed a comprehensive bicycle skills curriculum considered the national standard for adults seeking to improve their on-bike skills. The classes available include basic and advanced on-road skills, commuting, and driver education. Local League of American Bicyclist Certified Instructors offer "StreetSmarts Cycling" classes that teach participants how to operate a bicycle under various conditions, and about bicyclists' rights and responsibilities. There are currently eleven League-Certified Instructors in the Culver City area. More information on this program is available online at: www.bikeleague.org/programs/education/courses.php.

Other organizations such as the Los Angeles County Bicycle Coalition (LACBC), Cyclists Inciting Change through Live Exchange (CICLE), and Sustainable Streets provide regular training classes that instruct individuals on safe bicycle operations.

7.2.3. Education Campaigns

Motorists have limited education on the rights of bicyclists and pedestrians. Many motorists mistakenly believe that bicyclists do not have a right to ride in travel lanes, and that bicyclists should ride on sidewalks. Education about the rights and responsibilities of pedestrians and cyclists can include:

- Incorporating bicycle and pedestrian safety into traffic school curriculum
- Producing a brochure on bicycle and pedestrian safety and laws for public distribution
- Instructing of law enforcement officers on laws that pertain to bicyclists
- Providing bicycle and pedestrian awareness training for all City staff who work within the public right-of-way
- Working with contractors, subcontractors and city maintenance and utility crews to ensure they understand the needs of bicyclists and pedestrians and follow standard procedures when working on or adjacent to roadways and walkways

Additional resources for a police education course include:

- www.bicyclinginfo.org/enforcement/training.cfm
- www.massbike.org/police

7.3. Awareness & Encouragement Programs

Awareness and encouragement programs play a critical role in growing bicycling and pedestrian activity in a city. The programs listed in the following section will help walking and bicycling grow in Culver City.

7.3.1. Share the Road Education Campaign

One main request from the public is for more motorist education on bicyclists and pedestrians' rights to the road. A Share the Road campaign educates motorists, bicyclists and pedestrians about their legal rights and responsibilities on the road, and the need for increased courtesy and cooperation among all users.

Share the Road campaigns often hold periodic traffic checkpoints along roadways with concentrated bicycle and pedestrian activity. Motorists, bicyclists and pedestrians stop at these checkpoints to receive a Share the Road flyer and can give feedback to officers regarding the campaign. Checkpoints can also occur along local bikeways and paths. Public service announcements on radio and television can help promote the Share the Road campaign.

The Marin County Bicycle Coalition offers an example of a successful Share the Road campaign at www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml.

7.3.2. Bike Light Campaign

California Vehicle Code (CVC) §21201 requires bicycles to mount a front white light and red rear reflectors. Bicycle lights are more visible than reflectors at night. A Bike Light campaign in Culver City could promote cooperation with the CVC and increase safe riding habits.

The Los Angeles County Bicycle Coalition (LACBC) administers a program called "City Lights" that features free bicycle lights in conjunction with educational materials. Culver City can tailor this program to fit its unique needs.

Portland, Oregon developed a "See and Be Seen" public safety campaign to encourage bicyclists to use lights and to remind motorists to watch for bikes. Campaign elements included coupons for bike lights and other reflective gear, and a parade to celebrate bright bikes. More information on Portland's program is available at:

www.portlandonline.com/transportation/index.cfm?&c=deibb&a=bebfjh.

7.3.3. Bike-to-Health Campaign

The BPMP aims to support healthier lifestyles by encouraging and enabling bicycling and walking. Obesity and sedentary lifestyles are on the rise for both adults and children in America, and one way to combat this is to integrate daily exercise into the American lifestyle.

A Bike-to-Health marketing campaign may include:

- Websites with information on getting started, event calendars, advice from health professionals, and safety information for adults and children
- Print ads in community newspapers to increase the exposure of the campaign
- Community events and rides. These rides occur during the summer and early fall months. Participants earn prizes and attain better health through reaching mileage goals. Campaigns encourage families to bike to better health together.

7.3.4. Event Bicycle Parking

Providing safe and secure bicycle parking helps encourage individuals to bicycle. Many individuals during the public input process expressed interest in seeing a "bike valet" program at Culver City events. San Francisco passed a city ordinance that requires all major city events to provide bike parking and pioneered an innovative

tool for stacking hundreds of bicycles without racks (www.sfbike.org/?valet). Culver City should consider temporary bicycle parking for events with expected large attendance and at regularly occurring events like the Farmer's Market.



Bike valets provide safe parking and advertise bicycling to events

7.3.5. Community Bikeway/Walkway Adoption

Community Bikeway/Walkway Adoption programs resemble the widely instituted Adopt-a-Highway programs throughout the country. These programs identify local individuals, organizations, or businesses interested in "adopting" a bikeway, walkway, or shared-use path. "Adopting" a facility means that person or group is responsible for the facility's maintenance, either through direct action or funding the City's maintenance of that facility. For example, members of a local recreation group may volunteer every other weekend to sweep a bikeway and identify larger maintenance needs. Alternatively, a local bike shop may adopt a bikeway by providing funding for the maintenance costs. Some adopted bikeways post sponsors' names on bikeway signs to display their commitment to bicycling.

7.3.6. Multi-Modal Access Guide

A multi-modal access guide provides information on accessing specific destinations using bicycling, walking and public transit. Simple access guides are maps printed on the back as a business card, or while complex guides can be multi-page packets distributed to employees. Items commonly included in access guides are:

- An area map depicting bus stops, recommended walking and bicycling routes, landmarks, facilities such as restrooms and drinking fountains, bicycle and vehicle parking, and major roads
- Information on transit service, including frequency, fares, accepted payment methods, first and last runs, schedules, and contact information for transit service providers and taxis
- Information on walk or bike travel time from a transit center to a destination
- Accessibility information for people with disabilities
- Wayfinding and local advertisements

Best practices include using graphics, providing specific step-by-step travel directions, providing parking location and pricing information, and providing information about the benefits of walking and bicycling. High quality access guides should be concise and accurate, and incorporate input from key stakeholders including public transportation operators, public officials, public and private employees, guide distributors, and those with disabilities.

7.3.7. Ciclovias/ "Sunday Streets"

First implemented in Bogota, Colombia, the Ciclovia is a community event based around a street closure. Ciclovias provide local recreational and business opportunities for the community and are increasingly popular citywide events. Ciclovias can combine with other popular community events to promote walking

and bicycling as a form of viable transportation. The public workshops discussed Ciclovias several times and participants requested holding Ciclovias during the public input process.

Ideally, Ciclovias should provide access to civic, cultural, or commercial destinations. Culver Boulevard may be an ideal candidate for a Ciclovia.

More information is available at:
www.healthystreets.org/pages/sunday_parkways.htm



Inaugural CicLAvia in Los Angeles, October 10, 2010

7.3.8. Community Walks/Bike Tours

Community walks and tours are healthy ways to promote historical and cultural aspects of the City. Groups that can organize community tours include Culver City staff, neighborhood organizations, schools, and other groups that want the public to interact with the physical environment. Community walks and bike tours are effective tools for examining potential improvements to the physical environment and educating participants on resources/amenities available within the City.



Example bicycle and pedestrian signage

7.3.9. Bicycle & Pedestrian Signage Program

Discussed earlier in this Plan, Culver City should develop a uniform signage concept and plan for on/off-street bikeways and pedestrian corridors. The Plan should include uniform sign design(s), placement guidelines (where and how often), and a map of proposed bikeways and corridors to receive signage, and guides on avoiding places too many signs or "sign clutter."

Culver City can support individuals choosing to make non-motorized trips within Culver City by advertising routes and destinations to bicyclists and pedestrians. Signage posted along bikeways and pedestrian corridors should advertise linkages to popular destinations, and be in harmony with other Culver City signage standards. Sign placement should be strategic and thoughtful to have the greatest impact and to avoid the "clutter" of over-signing.

7.3.10. Ballona Creek Bike Path Volunteer Program

The Ballona Creek Bike Path is a valuable public resource. Many Culver City residents' expressed concern about the Path's safety. Path volunteers are one way to improve Path safety. These trained volunteers would station at access points or ride along the path in a non-enforcement role, providing information to the public. Path volunteers could station at access points during peak-use, typically weekends and holidays.

The goals of the Path volunteers should include:

- Educating users on sharing the Path
- Providing information on Path resources in the area
- Maintaining proper Path conditions by informing responsible agencies of hazards
- Acting as a crime deterrent by observing Path activity

Toronto's Trail Ambassadors program provides helpful information for developing this program: www.toronto.ca/cycling/ratsa/index.htm.



Bicyclist along the Ballona Creek Path

8. Funding

8.1. Funding Sources

A variety of federal, state, and local sources can provide funding for the recommended projects and programs identified in the BPMP. Staff will need to apply for these grants. **Table 8.3** provides additional information about the following funding sources:

8.1.1. Federal

Land & Water Conservation Fund (LWCF)

The LWCF program provides matching grants to State and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program aims to create and maintain a nationwide legacy of high quality recreation areas and facilities, and to stimulate non-federal investments in the protection and maintenance of recreation resources. The LWCF could fund Ballona Creek-adjacent bicycle facilities.

Petroleum Violation Escrow Account (PVEA)

PVEA funds come from fines paid by oil companies in the 1970's for violating oil price caps set by the federal government. The Department of Energy's State Energy and Weatherization Assistance Program distributes the money at the state level through grants. PVEA funds projects with an emphasis on energy saving, including public transportation and bridge construction or maintenance. PVEA funds could assist with building the Ballona Creek bridges.

Safe Routes to School (SRTS) Program

Safe Routes To School (SRTS) began under Section 1404 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SRTS aims to encourage children in grades Kindergarten through Eighth (K-8) to walk and bike to school. Consistent with other federal-aid programs, individual State Departments of Transportation (DOT) are responsible for the development and implementation of grant funds. The Federal SRTS program is separate from the State funded Safe Routes to School Program, described later in the document. Some expected outcomes of the program include:

- Improved bicycle, pedestrian, and traffic safety around schools
- Increased numbers of children walking and bicycling to and from schools
- Decreased traffic congestion around schools
- Reduced childhood obesity
- Improved air quality, community safety and security, and community involvement
- Improved partnerships among schools, local agencies, parents, community groups, and nonprofit organizations

A minimum of 70 percent of each year's apportionment is available for infrastructure projects, with up to 30 percent for non-infrastructure projects.

Infrastructure Projects

Infrastructure projects are engineering projects or capital improvements that improve safety and the ability of students to walk and bicycle to school. They typically involve the planning, design, and construction of facilities within a two-mile radius of a grade school or middle school. The maximum funding cap for an infrastructure project is $1 million. California Department of Transportation (Caltrans) does not set minimum caps. The project cost estimate may include eligible direct and indirect costs. Direct costs include the cost of construction and materials. Indirect costs may include salaried employees or staff time allotted to the project.

Infrastructure projects should directly support increased safety and convenience for K-8 children to walk and bicycle to school, including children with disabilities.

Eligible projects include:

- Bicycle projects such as new bicycle trails and paths, bicycle racks, bicycle lane striping and widening, new sidewalks, widened sidewalks, sidewalk gap closures, curbs, gutters, and curb ramps
- Pedestrian projects such as new pedestrian trails, paths, and pedestrian over and under crossings, roundabouts, bulb-outs, speed bumps, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full or half-street closures, and other speed reduction techniques
- Traffic control devices such as new or upgraded traffic signals, crosswalks, pavement markings, traffic signs, traffic stripes, in-roadway crosswalk lights, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, vehicle speed feedback signs, and pedestrian activated upgrades

Non-Infrastructure Projects

Non-infrastructure projects are education/encouragement/enforcement activities intended to change community behavior, attitudes, and social norms to make it safer for children in grades K-8 to walk and bicycle to school. Non-infrastructure projects should increase the likelihood of programs becoming institutionalized once in place. The application for a non-infrastructure project must be clearly state the deliverables and the final invoice or Progress Report must attach tangible samples, e.g., sample training materials and promotional brochures. The funding cap for a non-infrastructure project is $500,000. Multi-year funding allows the applicant to staff up and deliver their project over the course of four (4) years, thereby reducing overhead and increasing project sustainability.

Non-infrastructure projects must fall into one or more of the following categories:

- **Education** – Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills, and launching driver safety campaigns near schools
- **Enforcement** – Partnering with local law enforcement to ensure traffic laws compliance nears schools (this includes enforcement of speeds, yielding to pedestrians in crossings, and proper walking and bicycling behaviors), and initiating community enforcement such as crossing guard programs or pedestrian right-of-way sting programs
- **Encouragement** – Using events and activities to promote walking and bicycling
- **Evaluation** – Monitoring and documenting outcomes and trends by collecting data before and after the intervention(s)

- **Engineering** – Creating improvements near schools to reduce speeds, alleviate conflicts with motor vehicle traffic, establish safer and fully accessible crossings, and provide walkways, trails and bikeways

Note: While typical non-infrastructure projects fall under one or more of the top four E's listed above, some non-infrastructure activities may involve design. For that reason, Engineering is included as the fifth E above.

Eligible projects may target a single local school or school district, or an entire State. The most effective non-infrastructure activities occur within the framework of a community coalition. Thus, the Plan strongly supports establishing a SRTS community coalition. A community coalition begins by convening community stakeholders at a walkable/bikeable Community Workshop. The coalition works to pursue concrete steps to make the community more walkable and bikeable. The workshop serves as the impetus to bring together key partners, including schools, elected officials, local government, parks and recreation, law enforcement, emergency services, public health, business owners, residents, advocacy groups and other organizations. Participants in the community coalition design and implement a Plan that incorporates the five Es.

Transportation, Community, and System Preservation Program (TSCP)

Implementation grants under the TCSP Program provide financial resources to States, metropolitan planning organizations, local governments and tribal governments to enact activities that address transportation efficiency, while meeting community preservation and environmental goals. Policy and program examples include spending policies that direct funds to high-growth regions; urban growth boundaries to guide metropolitan expansion; and "green corridor" programs that provide access to highway corridors in areas targeted for efficient and compact development.

Recreational Trails Program (RTP)

The Recreational Trails Program provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails (with restrictions for new trails on federal lands)
- Acquisition of easements or property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

8.1.2. State of California

Bicycle Transportation Account-State

The State of California Bicycle Transportation Account (BTA) is an annual statewide discretionary program that funds bicycle projects through the Caltrans Bicycle Facilities Unit. Available as grants to local

jurisdictions, the program emphasizes projects that benefit bicycling for commuting purposes. As of 2009, the BTA makes $7.2 million available each year. The local match is a minimum of 10% of the total project cost.

BTA projects intend to improve safety and convenience for bicycle commuters and can include:

- New bikeways serving major transportation corridors
- New bikeways removing travel barriers to potential bicycle commuters
- Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings
- Bicycle-carrying facilities on public transit vehicles
- Installation of traffic control devices to improve the safety and efficiency of bicycle travel
- Elimination of hazardous conditions on existing bikeways
- Planning
- Improvement and maintenance of bikeways

Eligible project activities include:

- Project planning
- Preliminary engineering
- Final design
- Right-of-way acquisition
- Construction and/or rehabilitation

Environmental Enhancement and Mitigation Program (EEMP)

Environmental Enhancement and Mitigation Program Funds support projects that offset environmental impacts of modified or new public transportation facilities. These projects can include highway landscaping and urban forestry projects, roadside recreation projects, and projects to acquire or enhance resource lands. EEMP grant funding supports only mitigating transportation projects beyond mitigation originally required of the project. State gasoline tax monies fund the $10 million EEMP.

Hazard Elimination Safety Program (HES)

The Hazard Elimination Safety Program (HES) is a state safety program that funds safety improvements on all public roads and highways. These funds attempt to reduce the number and severity of traffic accidents at improved locations.

Local agencies compete for HES funds each year by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide and releases an annual HES Program Plan that identifies the approved projects. The State disperses funding annually following the federal fiscal year. Approximately $27 million dollars were available in the 2007 funding cycle.

The HES considers funding two project types: Safety Index and Work Type. Safety Index Projects qualify for funding based on a State-calculated safety index. These projects receive a statewide priority with this index. A project that fails to receive funding under the Safety Index category automatically moves into the Work

Type category and competes for funding with other projects in this category. Work Type projects receive approximately 75 percent of the available HES funds, while Safety Index projects receive about 25 percent.

Projects in the Safety Index category include installing raised median islands, protected left-turn phasing, and widened roadways. Work Type Projects include curb ramps, crosswalks, installation of right turn lanes and construction of new bus stop aprons.

Office of Traffic Safety (OTS) Grant

Office of Traffic Safety Grants (OTS) fund safety programs and equipment. Bicycle and Pedestrian Safety is a specifically identified priority. This category of grants includes enforcement and education programs, which can encompass a wide range of activities, including bicycle helmet distribution, design and printing of billboards and bus posters, other public information materials, development of safety components as part of physical education curriculum, or police safety demonstrations through school visitations.

The grant cycle typically begins with a request for proposals in October due the following January. In 2006, OTS awarded $103 million to 290 agencies.

Safe Routes to School (SR2S) Program

The State-legislated Safe Routes to School (SR2S) program began in 1999. Since then, seven funding cycles have been completed. The State typically announces the list of awarded projects in the fall.

Although both the federal and state programs have similar goals and objectives, they have different funding sources, local funding match requirements, and other program requirements (see previous section).

The SR2S program aims to reduce injuries and fatalities to schoolchildren and to encourage increased walking and bicycling among students. The program achieves these goals by constructing facilities that enhance safety for students in grades K-12 who walk or bicycle to school. Enhancing the safety of the pathways, trails, sidewalks, and crossings also attracts and encourages other students to walk and bicycle.

The SR2S program is primarily a construction program. Construction improvements must occur on public property. Improvements can occur on public school grounds providing the cost is incidental to the overall project cost. Statewide, the program typically provides approximately $25 million annually. The maximum reimbursement percentage for any SR2S project is ninety percent. The maximum amount that SR2S funds to any single project is $900,000.

Eligible project elements include bicycle facilities, traffic control devices and traffic calming measures. Up to ten percent of project funding can go toward outreach, education, encouragement, and/or enforcement activities. The 2009 cycle provided $48.5 million in funding.

TDA Article III (SB 821)

The State of California distributes Transportation Development Act Article 3 funds for application at the county level. Locally, the Los Angeles County Metropolitan Transportation Authority (Metro) administers this program and establishes its policies. Cities can use the funds for planning and constructing bicycle and pedestrian facilities

Fund allocation to cities and the County of Los Angeles occurs on an annual cycle based on population. Local agencies may either draw down these funds or place them on reserve. Agencies must submit a claim form to Metro by the end of the allocated fiscal year. Failure to do so may result in losing the allocated funds.

TDA Article 3 funds may go towards the following activities related to the planning and construction of bicycle and pedestrian facilities:

- Engineering expenses leading to construction
- Right-of-way acquisition
- Construction and reconstruction
- Retrofitting existing bicycle and pedestrian facilities, including installation of signage, to comply with the Americans with Disabilities Act (ADA)
- Route improvements such as signal controls for bicyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates
- Purchase and installation of bicycle facilities, such as secure bicycle parking, benches, drinking fountains, changing rooms, rest rooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals (must be accessible to the general public)

8.1.3. Regional

Metro Call for Projects (CFP)

Metro is responsible for allocating discretionary federal, state and local transportation funds to improve all modes of surface transportation. Metro also prepares the Los Angeles County Transportation Improvement Program (TIP). A key component of TIP is the Call for Projects program, a competitive process that distributes the discretionary capital transportation funds to regionally significant projects.

Every other year (pending funding availability), Metro accepts Call for Projects (CFP) applications in several modal categories. The Metro Long Range Transportation Plan (LRTP) determines funding levels based on mode share. As of the writing of this Plan, the Call is currently on an odd-year funding cycle with applications typically due early in the odd years (next anticipated call is in 2011). Local jurisdictions, transit operators, and other eligible public agencies may submit applications proposing projects for funding. Metro staff ranks eligible projects and presents preliminary scores to Metro's Technical Advisory Committee, comprised of members of public agencies, and the Metro Board of Directors for approval. Upon approval, SCAG updates and formally transmits the TIP to the Southern California Association of Governments (SCAG) and the California Transportation Commission (CTC). The TIP becomes part of the five-year program of projects scheduled for implementation in Los Angeles County.

The modal categories relevant to the implementation of bicycle projects and programs are Bikeway Improvements, Regional Surface Transportation Improvements (RSTI), Transportation Enhancements Activation (TEA), and Transportation Demand Management (TDM). Typically funding provided for bicycle improvements include the deferral transportation fund, currently SAFETEA-LU, TDA and CMAQ categories. Some intersection improvements or grade-separated crossing projects in the BPMP may provide an equal or greater benefit to pedestrians. In these cases, the City should consider applying for funding within the Pedestrian Improvements modal category. Wherever possible, BPMP projects should be included as part of larger arterial improvement projects and submitted under the RSTI category.

The following table provides information on each of the relevant modal categories within the Metro Call for Projects as of 2009.

Table 8-1: Metro Call For Projects (Bicycle Related)

Modal Category	Share of Funding*	Eligible Projects**
Bikeway Improvements	8%	Regionally significant projects that provide access and mobility through bike-to-transit improvements, gap closures in the inter-jurisdictional bikeway network, bicycle parking, and first-time implementation of bicycle racks on buses.
Regional Surface Transportation Improvements (RSTI)	40%	On-street bicycle lanes may be eligible if included as part of a larger capacity-enhancing arterial improvement project. Bikeway grade-separation projects may be eligible as part of larger arterial grade-separation projects.
Transportation Enhancement Activities (TEA)	2%	Bicycle-related safety and education programs. Bikeway projects implemented as part of a scenic or historic highway, and landscaping or scenic beautification along existing bikeways may also be eligible.
Transportation Demand Management (TDM)	7%	Technology and/or innovation-based bicycle transportation projects such as Bicycle Commuter Centers and modern bicycle sharing infrastructure. Larger TDM strategies with bicycle transportation components would also be eligible.

*Funding estimate is bi-annual (every other year) based on the approved funding from the 2009 Call.
**The discussion of eligible projects is based on 2009 CFP requirements and assumes all eligibility requirements are met and the questions in the Call application are adequately addressed. These requirements are subject to change in future cycles. City staff should refer to the latest Call Application Package for detailed eligibility requirements.

Metro's 2009 Long Range Transportation Plan identifies funding totaling $287 million over the next 30 years in the pedestrian mode through the Call for Projects program. Eligible projects under the Pedestrian Improvements category include pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system.

Table 8-2: Metro Call for Projects (Pedestrian Related)

Modal Category	Share of Funding*	Eligible Projects**
Pedestrian Improvements	8%	Pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system.

*Funding estimate is bi-annual (every other year) based on the approved funding from the 2009 Call.
**The discussion of eligible projects is based on 2009 CFP requirements and assumes all eligibility requirements are met and the questions in the CFP application are adequately addressed. These requirements are subject to change in future cycles. City staff should refer to the latest CFP Application Package for detailed eligibility requirements.

8.1.4. Local

The following section lists fees that Culver City could collect through its discretionary permit process or other local processes:

Vehicle Trip Impact Fees

One potential local funding source is developer vehicle trip impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce or mitigate the number of trips (and hence impacts and cost) by paying for on- and off-site bikeway improvements that encourage residents to bicycle rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical.

Mello-Roos Community Facilities District Act

Community Facilities District Act (more commonly known as Mello-Roos) was a law enacted by the California State Legislature in 1982. The Act enables local government agencies to establish Community Facilities Districts (CFDs) as a means of obtaining community funding. A CFD is an area where an additional tax on property is imposed on those real property owners within the CFD. This local assessment can fund bicycle paths and bicycle lanes. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support. Establishing CFDs requires detailed analysis and outreach, and CFDs may have limited application in Culver City.

New Development Impact Fee (CCMC 15.06)

The New Development Impact Fee is assessed on non-residential developments that exceed a certain threshold for increased square footage through new construction or change of use. This fee is used for funding capital improvements.

8.1.5. Private & Non Profit

The following are funding sources capable of supporting bicycle and pedestrian facilities and programs from private and non-profit sources.

Bikes Belong Coalition, Ltd.

The American Bicycle Industry sponsors the Bikes Belong Coalition, which encourages people to ride bicycles throughout the United States. The coalition administers grants of up to $10,000 to develop bicycle facilities through the Federal Transportation Act.

Robert Wood Johnson Foundation (RWJF)

The RWJF funds aim to improve health and health care in the United States. RWJF funds approximately 12 percent of unsolicited projects with grant funds ranging from $2,000 to $14 million. Bicycle and pedestrian projects applying for RWJF funds qualify under the program's goal to "promote healthy communities and lifestyles."

Table 8.3: Funding Sources

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx) 2009	Matching Requirement	Eligible Bikeway Projects			Comments
					Commute	Rec-reation	Safety/ Ed	
Land & Water Conservation Fund (LWCF)	May	State DPR		$7.7 m statewide	50%, including in-kind		X	Federally-funded. Projects that acquire and develop outdoor recreation areas and facilities.
Petroleum Violation Escrow Account (PVEA)	On-going	State Legislature	$6m	$5 m	--	X	X	Bicycle and trail facilities have been funded with this program.
Safe Routes to School - Federal	April	Caltrans	$48.5 m (Nationally)	--	X	X	X	Infrastructure improvements must be within 2 miles of elementary or middle school.
Transportation and Community and System Preservation Program (TCSP)	Pending	FHWA	$61.25 m	--	X	X	--	Projects that improve system efficiency, reduce environmental impacts of transportation, etc.
Bicycle Transportation Account	December	Caltrans	$7.2 m	min. 10% local match on construction	X		X	State-funded. Projects that improve safety and convenience of bicycle commuters.
Environmental Enhancement and Mitigation Program (EEMP)	November	State Resources Agency, Caltrans	$10 m statewide	not required but favored	X	X	X	Projects that enhance or mitigate future transportation projects; can include acquisition or development of roadside recreational facilities.
Hazard Elimination Safety Program (HES)	April	Caltrans	$12m	$10-16 m	10%		X	Refer to latest Call for Projects Application Package for eligibility requirements.
Office of Traffic Safety Grants (OTS)	January	Office of Traffic Safety	$56 m	--			X	Bicycle and pedestrian projects have been funded through this program.
Recreational Trails Program (RTP)	October	TEA	$3 m	20% match		X		For recreational trails to benefit bicyclists, pedestrians, and other users.

Safe Routes to School – State	June or July	Caltrans	$18 m	10% min.	X	X	X	Primarily construction program to enhance safety of pedestrian and bicycle facilities.
Transportation Development Act (TDA) Article 3 (2% of total TDA)	January	Metro	Per capita	N/A	X	X	X	Purchase and installation of bicycle facilities including bikeway support facilities and secure bicycle parking. Retrofit of existing facilities to comply with ADA.
Metro CALL: Bikeway Improvements	Odd-numbered years: late winter / early spring	Metro	$17.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Regional Surface Transportation Improvements (RSTI)	Odd-numbered years: late winter / early spring	Metro	$110 m	35% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Transportation Enhancement Activities (TEA)	Odd-numbered years: late winter / early spring	Metro	$6.5 m	20% local match	X		X	Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Transportation Demand Management (TDM)	Odd-numbered years: late winter / early spring	CMAQ	$3.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.

Metro CALL: Pedestrian Improvements	Odd-numbered years: late winter / early spring	SLPP TEA CMAQ RSTP	$20 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Mello-Roos Community Facilities Act	Ongoing	Tax Revenue approved by 2/3 vote	N/A	--	X	X	X	Funds have been used for bicycle lanes/paths
New Development Impact Fee	Ongoing	Cities or County	N/A	N/A	X	X	X	Assessed on non-residential developments that exceed a certain threshold for increased square footage through new construction or change of use.
Vehicle Trip Fee	Ongoing	Cities or County	N/A	N/A	X	X	X	Assessed on developments that generate new trips.
Private Funding Sources	Ongoing	Private Donors	N/A	N/A	X	X	X	Community and corporate sponsorships for new facilities
CMAQ = Congestion Mitigation and Air Quality, RTPA = Regional Transportation Planning Agency, RSTP = Regional Surface Transportation Program, SLPP = State Local Partnership Program, TEA = Transportation Equity Act								

* Metro Call for Projects funding levels may vary greatly from cycle to cycle. Approved funding from the 2007 CFP provided the basis for this table's annual estimates.

8.2. Past Expenditures

The Los Angeles County Metropolitan Transportation Agency (Metro) *Bicycle Transportation Account Compliance Document* (BTA Document, 2006) contains an inventory of existing bikeway facilities, past expenditures, proposed bikeways, and proposed costs for cities within Metro jurisdiction. Table 3 of the BTA Document (pp. 17-21) shows that Culver City has past expenditures of $160,377, which covers 3.16 miles of Class I and 0.45 miles of Class II Bikeways

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9. Evaluation & Implementation Responsibility

9.1. Implementation Responsibility

Grant funding is critical to implementing this plan. The most important step is securing funding for a mobility coordinator as the main contact for bicycle and pedestrian related issues. However, the Public Works Department's Administration Division will have the primary responsibility for implementing and evaluating the BPMP until the City fills the mobility coordinator position.

9.2. Evaluation

Evaluation is an important component of a comprehensive BPMP. The definition of a project's success can take on many forms, but this Plan's ultimate goal is to make bicycle and pedestrian more convenient and comfortable. Regular evaluations in the form of bike/pedestrian counts and surveys can assess bicyclist and pedestrian convenience and comfort. Counts and surveys administered after completing a project can find effective project features and areas still needing improvement. Other evaluations, such as accident data, will also provide important information about the Plan's success.

Before & After Counts

Counts of non-motorized activity at key project locations will help the City evaluate project use, and to understand bicycle and pedestrian activity throughout the City.

Annual Counts

Annual counts at various points within the City can help gauge bicycle and pedestrian activity on a regular basis.

Census Analysis

A comparative analysis of 2000 and 2010 Census Journey to Work data can provide baseline understanding for the changes in non-motorized transportation in Culver City. Though Census data has its limitations, it can provide a starting point for planning and programming purposes.

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10. Goal, Objectives, Policies and Actions

The BPMP concludes with a summary of the Plan's principal goal, as well as the identification of specific objectives, policies and actions for achieving this goal. This goal and its associated objectives, policies and actions relate to all the issues addressed in the BPMP, from vision, to policy changes informed by the existing conditions, to expanding the City's network of facilities and creating non-infrastructure programs to encourage cycling and walking.

10.1. BPMP Goal

As previously stated, in creating its first ever Bicycle and Pedestrian Master Plan, the City is embracing the concept of Complete Streets, recognizing that it is essential to enhancing the quality of life not only for residents and visitors, but also the broader community and world. This form of transportation planning emphasizes a balanced transportation system that considers all users of the road when planning development and transportation projects, whether cyclists, pedestrians, transit riders, or vehicles. In doing so the City is transforming itself into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. The following principal goal, identified earlier in this document, provides the overarching guidance to attain this transformation:

Goal

> ***Transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.***

In order to attain this goal the following objectives, policies and actions will provide guidance to the implementation of the BPMP. Adopting this Plan establishes and implements some of the actions identified in this Plan. In most instances, however, implementation will depend on obtaining grant funding.

Objective 1 - Implement the 2010 Bicycle and Pedestrian Master Plan (BPMP), by initiating funded projects and programs and pursuing grant funding for unfunded projects and programs over the next 5 years.

Policy 1a – Update the Plan periodically as necessary to be current with changing policies and/or requirements for grant funding.

> Action 1a – Continue to monitor state and regional bicycle and pedestrian related policy and funding discussions to ensure the BPMP is current or amended in order to take advantage of all applicable funding opportunities.

Policy 1b – Coordinate with state, regional and local agencies on bicycle and pedestrian related issues.

> Action 1b – Continue to coordinate with. City and County of Los Angeles, Culver City Unified School District, Metropolitan Transportation Authority and other community/regional serving agencies to work cooperatively on bicycle and pedestrian issues of mutual concern

Policy 1c – Implement the Bicycle and Pedestrian Networks identified in the BPMP.

Action 1c.1 – Develop a comprehensive implementation strategy to identify funds and construct Tier 1 Bicycle and Pedestrian Network projects by 2015.

Action 1c.2 – As funding is identified and in order to initiate the educational process of motorist, implement the BPMP Bicycle Network by placing Class III Bike Route and "Share the Road" signage along all Tier 1 Bicycle projects until funding to implement Bike Lane striping projects can be implemented, where appropriate.

Action 1c.3 – As funding becomes available, implement the Tier 1, 2 and 3 projects indentified in the BPMP to improve Bikeway and Pedestrian Networks' access to community and citywide amenities, such as Downtown, regional and community recreation centers, and commercial destinations.

Action 1c.4 – Establish Bicycle Friendly Streets through the Neighborhood Traffic Management Program process as necessary, to encourage bicycling on "bicycle friendly" local and "Neighborhood Feeder" streets, with low traffic volumes and slow speeds, in order to enhance access to community and regional centers/amenities.

Action 1c.5 – Explore the potential for additional Ballona Creek Bike Path access points.

Policy 1d – Continue to explore/pursue opportunities and funding to expand and/or enhance the City's Bikeway and Pedestrian Networks beyond the facilities identified in the BPMP.

Action 1d.1– Continue to analyze the City's roadway network to identify opportunities to expand and/or enhance the City's Bikeway and Pedestrian Network and facilities, and to pursue grant funding for the design and/or construction of these facilities.

Objective 2 – Implement a "Complete Streets" Program by evaluating the needs of and/or the potential impacts on cyclists and pedestrians, including persons with special mobility needs, during planning/review of proposed public and private development and capital improvement projects.

Policy 2a – Recognize that bicyclists and pedestrians are users of all City streets and that the design of future street projects should accommodate bicycle and pedestrian travel.

Action 2a.1 – Adopt a "Complete Streets" policy requiring that bicyclists, pedestrians, and transit users needs are analyzed as part of all discretionary development review processes and capital improvement project design phases.

Action 2a.2 - Prepare a plan surveying/analyzing existing sidewalk facilities at high pedestrian volume intersections and at all bus stops to identify accessibility barriers and needed improvements, and develop an implementation strategy.

Action 2a.3 – Revise the City's Traffic Study criteria to ensure that bicycle and pedestrian movements are counted along with other vehicle movements counts and that the analysis shall include a weighing of the merits of the motor-vehicle related improvements against the needs of accommodating bicyclist and pedestrian movements.

Action 2a.4 – Consider adopting a mechanism for project related vehicle trips to be mitigated through funding of BPMP projects and/or programs or the provision of end-of-trip amenities, such as

additional bicycle parking and shower and clothing locker facilities to be located at transit centers and new employment sites to promote bicycle commuting.

Action 2a.5 – Consider establishing a trip-mitigation fee or expanding/increasing the New Development Impact Fee to fund BPMP project and program implementation.

Action 2a.6 – Consider establishing a process for payment of an in-lieu fee for use to fund BPMP projects and/or programs as a trip reduction credit.

Objective 3 - Create Mobility Coordinator position.

Policy 3a – Establish a Mobility Coordinator function within the Public Works Department to oversee implementation of the BPMP and future updates.

Action 3a.1 – Pursue funding for a Mobility Coordinator responsible for managing the implementation of the BPMP. Until a Mobility Coordinator is funded and the position filled, the Public Works Department's Administration Division will implement and evaluate the BPMP.

Objective 4 - Reduce the number bicyclists and pedestrians involved in traffic crashes.

Policy 4a – Pursue a program to enhance the cycling and pedestrian safety of the City's roadways through: education efforts for all roadway users; increasing awareness of bicyclists' rights and responsibilities; enhanced enforcement efforts for all roadway users; improvements to existing facilities; and continued regular maintenance of facilities.

Action 4a.1 – Periodically each year review cyclist and pedestrian crash reports to identify any potential problem areas and potential improvements.

Action 4a.2 – Identify streets without sidewalks or with partial sidewalks and, where appropriate, construct sidewalk improvements.

Action 4a.3 – Continue to enforce traffic laws by consistently citing bicyclists, pedestrians and motor vehicle operators for violations in order to enhance bicyclist and pedestrian safety.

Action 4a.4 – Pursue funding to conduct targeted enforcement activities, at least four times per year and lasting one week. Focused enforcement should be along streets in areas with high bicycle and pedestrian volumes or where non-motorized traffic is particularly high (e.g. Downtown, Ballona Creek Bike Path, East Washington Boulevard and Culver Boulevard Bike Path, etc.).

Policy 4b – Pursue implementing child/adult educational programs to provide cycling and pedestrian safety and skills courses.

Action 4b.1 – Pursue and promote funding programs for child and adult bicycle and pedestrian safety and education programs and the provision of information to bicyclists, motorists and the general public to improve bicycle safety.

Policy 4c – Pursue enhancing training of City staff, including Culver City Police Department (CCPD) officers on bicyclist rights and responsibilities.

Action 4c.1 – Develop and conduct a City-approved training program to educate City staff involved in decisions regarding transportation projects such as, traffic engineers, civil engineers, field inspectors, street maintenance personnel, planners, and parks and recreation staff.

Action 4c.2 – Pursue funding to provide additional training for CCPD officers regarding bicyclists' rights and responsibilities, pursuant to the California Vehicle Code and the Culver City Municipal Code.

Policy 4d – Assure a safe bicycling environment for riders of all experience levels.

Action 4d.1 – Consider establishing a Bicycle Patrol Program in conjunction with CCPD, local businesses and neighborhood groups to establish local Bicycle Patrol Units in order to enhance bicycle safety by enforcing bicycle traffic laws (e.g. wrong-way riding, sidewalk riding, obeying traffic controls, children wearing helmets, etc.), and providing bicycle safety education.

Action 4d.2 – Consider forming a City sponsored Ballona Creek Bike Path Volunteer Program to provide enhanced safety along the Ballona Creek Bike Path, through the use of trained volunteers stationed at access points or riding along the path (in a non-enforcement role) providing information to the public during times of peak-use, typically weekends and holidays.

Policy 4e – Conduct routine maintenance of the City's public rights-of-way to eliminate hazards to all users.

Action 4e.1 – Continue to provide regular maintenance and repairs for integral portions of the bicycle and pedestrian networks. Enhance awareness of the City hotline and website for the public to report facility maintenance and repair issues.

Action 4e.2 – Explore implementing a bikeways sponsorship program to provide additional revenue for maintenance costs and security improvements of bikeway facilities.

Action 4e.3 – Formalize and expand the City's sidewalk inspection and maintenance program in order to enhance and coordinate maintenance of public sidewalks.

Objective 5 - Over the next five (5) year planning period, double the percentage of total trips made by bicycling and walking in the City as observed from the City's 2009 bicycle and pedestrian counts.

Policy 5a – Continue to explore opportunities and funding to expand and/or enhance the City's Bicycle and Pedestrian Networks.

Action 5a.1 – Purse funding to enhance transit stations and high use bus stops to facilitate multi-modal trips by adding facilities/amenities.

Action 5a.2 – Explore installing/enhancing pedestrian facilities in areas with high pedestrian activity (where appropriate), especially Downtown, in commercial areas and adjacent to schools, such as widen sidewalks, lengthen crosswalk times, bulbouts, high visibility crosswalks, split curb-ramps, benches, street trees, water fountains, enhanced maintenance schedules, etc.

Action 5a.3 – Actively pursue grant funding opportunities for the implementation of the BPMP projects and programs, including federal and state Safe Routes to School programs, to make the City more bicycle and pedestrian friendly.

Action 5a.4 – Pursue grant funding to design and construct public sidewalks on residential and non-residential street segments that require sidewalk improvements.

Action 5a.5 – Pursue grant funding for design/community outreach and construction for a separate walking path along Ballona Creek, and enhancements to the Bike Path.

Action 5a.6 – Pursue grant funding for design and construction of a ramp at the Higuera Street Bridge to the Ballona Creek Bike Path.

Action 5a.7 – Pursue grant funding for bicycle and pedestrian improvements near Jefferson Boulevard and Hetzler Road.

Action 5a.8 – Develop and pursue grant funding to implement an improvement plan for the intersection of the Ballona Creek Bike Path entrance with Duquesne Avenue.

Action 5a.9 – Conduct traffic engineering analysis and if warranted purse grant funding to install a bicycle/pedestrian traffic signal in the area of the Ballona Creek Bike Path and Overland Avenue.

Action 5a.10 – Conduct a traffic engineering analysis and evaluation of facilities that best provide access to/from Downtown from an area bounded by Venice Boulevard, Jefferson Boulevard, Overland Avenue, and National Boulevard. After completing the analysis and evaluation, identify specific priority projects and pursue funding for construction of these projects.

Policy 5b – Increase the number of bicycle and walking trips through the provision of public and private end of trip facilities.

Action 5b.1 – Pursue funding to encourage bicycling and walking for everyday trips by providing convenient and secure public bicycle parking and support facilities at all public building, parks, Downtown and destination centers.

Action 5b.2 – Amend the Municipal Code to allow a citywide program to modify parking meter poles to serve as bicycle racks in order to increase the supply of quality bicycle parking in the public rights of way and pursue funding to implement a program.

Action 5b.3 – Consider the feasibility of placing bicycle parking corrals in on-street parking spaces in commercial areas of potential high demand in conjunction with local businesses.

Action 5b.4 – Explore increasing the City's Transportation Demand Management requirements for bicycle racks, lockers, and shower amenities for non-residential projects.

Action 5b.5 – Adopt design standards for all bicycle racks on public property, right-of-way, and design requirements for private development.

Action 5b.6 – Develop a Bicycle Parking Plan to inventory all current bicycle parking facilities in Downtown and at all City facilities and provide a specific set of recommendations for type, design, and location of bicycle parking facilities.

Policy 5c – Implement encouragement programs to increase bicycling and walking the City.

Action 5c.1 – Pursue funding for awareness and encouragement programs in collaboration with the community, though educational campaigns like Share the Road, community events like Ciclovias, or programs to make biking more comfortable like bike valets and signage.

Policy 5d - Develop a comprehensive signage program to aid cyclists and pedestrians.

Action 5d.1 – Develop a bicyclist oriented signage plan for Culver City incorporating a unique City logo, identifying alternative Route Signage, destination/bike parking signage and identify signage locations.

Action 5d.2 – Develop and install a bicycle wayfinding signage program to provide clear and accurate information as to best way to navigate the City and indicate route turns, the presence of intersecting bikeways and streets and nearby local and major destinations.

Policy 5e – Continue to explore/pursue opportunities and funding to convert adopted Bike Routes on the City's Bicycle Network to bike lanes.

Action 5e.1 – Pursue grant funding for design/community outreach and construction of bike lanes along Washington Bl., from National Boulevard to Fairfax Avenue.

Objective 6 - Amend and update the bicycle and walking related sections of the Municipal Code.

Policy 6a – Support implementation of BPMP, though amending and updating the Municipal Code.

Action 6a.1 – In coordination with appropriate City Departments, conduct a review and process amendments of the Municipal Code and any related development standards and review criteria to ensure their provisions are consistent with the BPMP Policies.

Action 6a.2 – Adopt Municipal Code provisions for regulating bicyclists and pedestrian behavior on the Ballona Creek and Culver Boulevard Bike Paths and public sidewalks and plazas, such as:

Ballona Creek and Culver Boulevard Bike Paths

The Ballona Creek and Culver Boulevard Bike Paths are valuable public resources. Currently neither the CVC nor the Municipal Code includes regulations for the use of the Paths. In order to enhance safety along the Paths, it could be beneficial adopt regulations governing the use of the Paths.

Bike Path Regulations

Always show courtesy to other trail users

Travel at speeds which are safe and appropriate

Travel in the right hand lane and allow faster path users to pass safely

Pass on the left

Give audible warning when passing other path users

Move off the path when stopping

Pay attention for other path users

Keep dogs on leash, and clean up after your pet

Bicyclists on Sidewalks

Yield to pedestrians at all times

Give audible warning when passing other sidewalk users

Ride speeds which are safe and appropriate

Objective 7 – Annually evaluate the outcomes of the BPMP implementation.

Policy 7a – Determine if the BPMP is succeeding in the identified Goal and Objectives.

Action 7a.1 – Use a combination of before & after counts, annual counts, census data analyses and accident rates to help gauge the City's effectiveness in increasing bicycle and pedestrian activity and safety.

Attachment 1 & 2

DRAFT

Culver CITY BICYCLE & PEDESTRIAN MASTER PLAN DESIGN GUIDE





alta PLANNING + DESIGN

Prepared for:
City of Culver City
Prepared by:
Alta Planning + Design

October, 2010

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1. Design Guide

1.1. Introduction

This Design Guide provides informational assistance to Culver City. It does not include design requirements, as Culver City will follow design guidance as mandated in the California Manual of Uniform Traffic Control Devices (CaMUTCD) and Caltrans Highway Design Manual (HDM). At the time of writing, the national Manual of Uniform Traffic Control Devices (MUTCD), Caltrans Highway Design Manual (HDM), and the American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* are undergoing updates to incorporate revised and new bicycle facility standards. The City may revise this guide after the MUTCD, HDM, and AASHTO finish their updates.

1.1.1. How to Use This Document:

This document has two components (bicycle and pedestrian) with individual sections. Sections **1.2**-**1.9** relate primarily to cyclists. Section **1.2** covers the design needs of different types of cyclists to create a basis for a variety of accommodation strategies. Section **1.3** discusses the design of off street multiple-use paths. Section **1.4** covers the design of on-street bicycle lanes. Section **1.5** covers the design of bicycle routes. Section **1.6** discusses specific types of bicycle facilities applicable to the City of Culver City, including sharrows, Bicycle Friendly Streets, and bicycle intersection treatments. Section **1.7** includes considerations for cyclists at signalized intersections. Section **1.8** addresses bicycle parking facilities. Section **1.9** provides an image and description of temporary traffic control devices. Sections **1.10**-**1.11** relate primarily to pedestrians. Section **1.10** describes pedestrian design guides. Section **1.11** discusses specific enhancements for pedestrians at signalized intersections.

The design sections include a tabular format relaying important design information, example photos, schematics (if applicable), and existing summary guidance from current, or upcoming draft standards. Schematics and other illustrations in this document convey design concepts and are not necessarily drawn to scale. Guidance is only referenced if it explicitly covers the full use of the treatment. Some treatments provide additional discussion on a following page to provide additional design detail.

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1.2. Design Needs of Cyclists

The purpose of this section is to provide the facility designer with an understanding of how cyclists operate and how their bicycle[1] influences that operation. Cyclists, by nature, are much more sensitive to poor facility design, construction and maintenance than motor vehicle drivers because they are physically exposed and lack the protection provided by the vehicle's structure and numerous other safety features. By understanding the unique characteristics and needs of cyclists, the facility designer can provide the highest quality facilities and minimize risk to the cyclists using them.

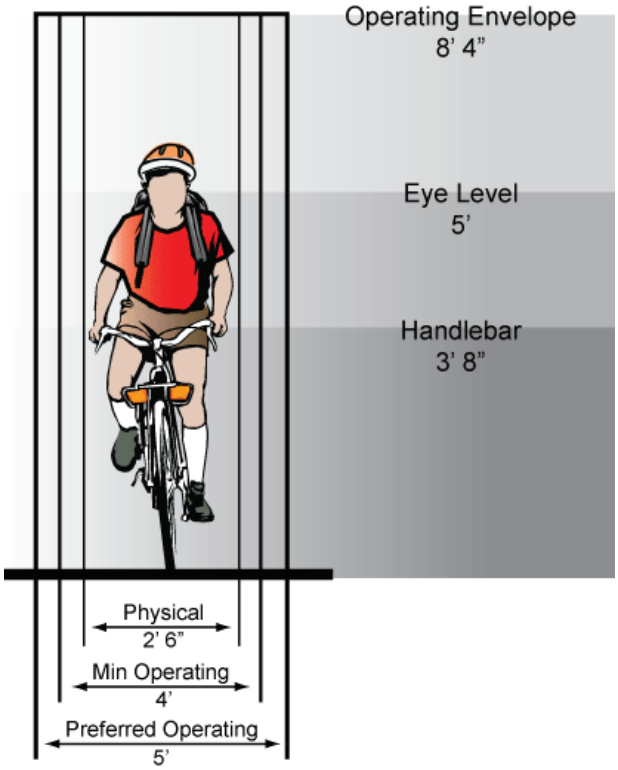


Figure 1-1 Standard Bicycle Rider Dimensions

Source: AASHTO Guide for the Development of Bicycle Facilities, 3rd Edition

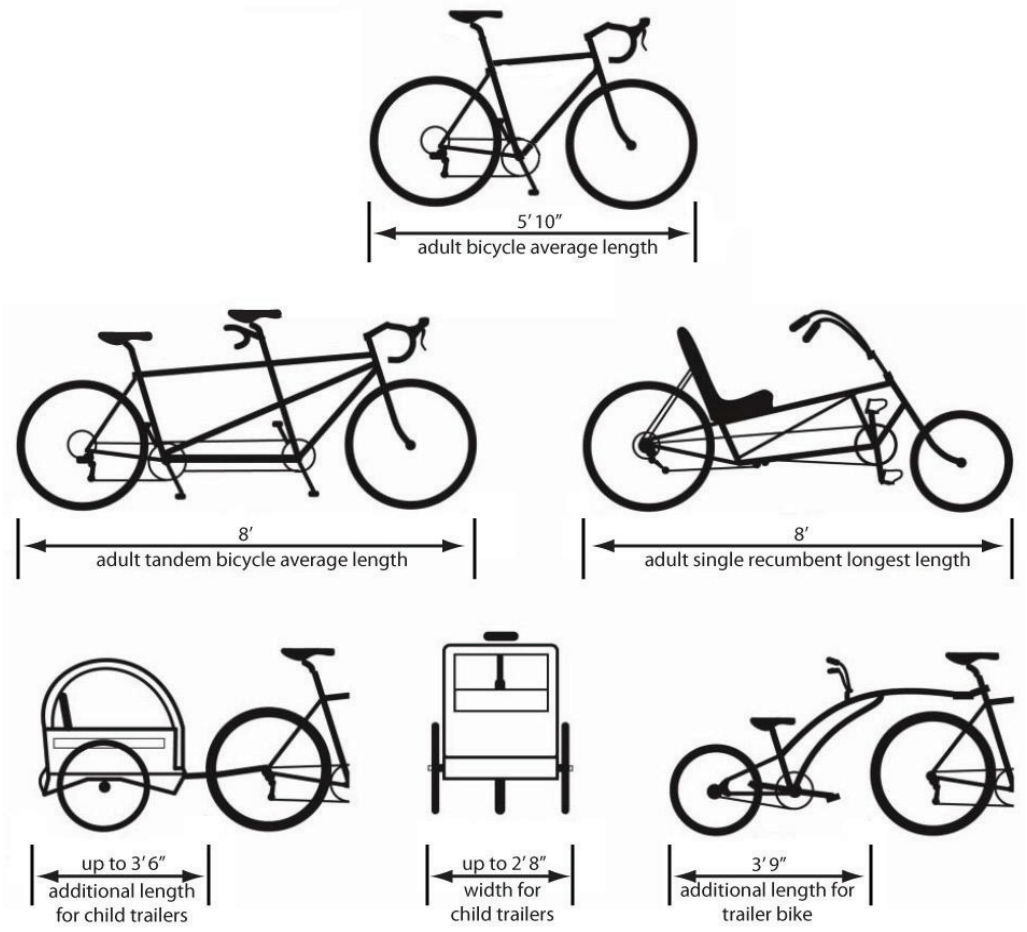
1 By CA law, the bicycle is a "device", not a vehicle; this distinction is intended to include all pedal cycles, including tricycles, bicycles with trailers, recumbent cycles, etc. However, cyclists are considered drivers and subject to motor vehicle law

1.2.1. The Bicycle as a Design Consideration

Similar to motor vehicles, cyclists and their bicycles come in a variety of sizes and configurations. This variation can occur in the types of vehicle (such as a conventional bicycle, a recumbent bicycle, or a tricycle), and behavioral characteristics (such as the comfort level of the cyclist). Any bikeway undergoing design should consider reasonably expected bicycle types on the facility and design with that set of critical dimensions in mind.

The figure below shows the operating space and physical dimensions of a typical adult cyclist, which is the basis for typical facility design. The cyclist requires clear space to operate within a facility; this is why the minimum operating width is greater than the physical dimensions of the cyclist. Cyclists prefer five feet or more operating width, although four feet is minimally acceptable. The graphic below includes other pertinent dimensions.

Outside the design dimensions of a typical bicycle, there are many commonly used pedal driven cycles and accessories to consider when planning and designing bicycle facilities. The most common types include tandem bicycles, recumbent bicycles, and trailer accessories.



1-2 Various Bicycle Dimensions
Source: AASHTO Guide for the Development of Bicycle Facilities, 3rd Edition

The table below summarizes the typical dimensions for common bicycle designs:

1.2.2. Bicycle as Design Vehicle – Typical Dimensions (AASHT0, 3rd Ed.)

Bicycle Type	Feature	Typical Dimensions
Upright Adult Cyclist	Physical width	2 ft 6 in
	Operating width (Minimum)	4 ft
	Operating width (Preferred)	5 ft
	Physical length	5 ft 10 in
	Physical height of handlebars	3 ft 8 in
	Operating height	8 ft 4 in
	Eye height	5 ft
	Vertical clearance to obstructions (tunnel height, lighting, etc).	10 ft
	Approximate center of gravity	2 ft 9 in to 3 ft 4 in
Recumbent Cyclist	Physical length	8 ft
	Eye height	3 ft 10 in
Tandem Cyclist	Physical length	8 ft
Cyclist with child trailer	Physical length	10 ft
	Physical width	2 ft 6 in

**AASHTO does not provide typical dimensions for tricycles.*

The speed that various types of cyclists can be expected to maintain under various conditions can also influence the design of facilities such as shared use paths. The following table provides typical cyclist speeds for a variety of conditions.

1.2.3. Design Speed Expectations

Bicycle Type	Feature	Typical Speed
Upright Adult Cyclist	Paved level surfacing	15 mph
	Crossing Intersections	10 mph
	Downhill	30 mph
	Uphill	5-12 mph
Recumbent Cyclist	Paved level surfacing	18 mph

**Tandem bicycles and cyclists with trailers have typical speeds equal to or less than upright adult cyclists.*

1.2.4. Routine Accommodation of Cyclists (Complete Streets)

Cyclists have legal access to all city streets. While the BPMP identifies a specific subset of streets to be included in the Culver City Citywide Bikeway System, many cyclists will need to use streets outside of the bikeway network in order to reach their destinations. Therefore, it is important that all roadways be designed as feasible to accommodate cyclists. The California Complete Streets Act of 2008 (AB 1358) mandates that cities plan for all users of roadways.

> *Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan….*
>
> *For purposes of this paragraph, "users of streets, roads, and highways" means cyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.*
>
> *California Complete Streets Act of 2008*

As called out in the 2008 Complete Streets Act, circulation elements should provide a "balanced" transportation network. The adoption of the BPMP is consistent with this effort, laying the groundwork for better bicycling and walking in Culver City.

THE CROSS SECTIONS ILLUSTRATED IN THE FOLLOWING PAGES ARE NOT INTENDED AS STANDARDS. THEY ILLUSTRATE SOME EXAMPLES THAT MAY ACCOMODATE BICYCLE TRAFFIC WITHIN EXISTING, STANDARD-WIDTH CITY RIGHTS-OF-WAY.

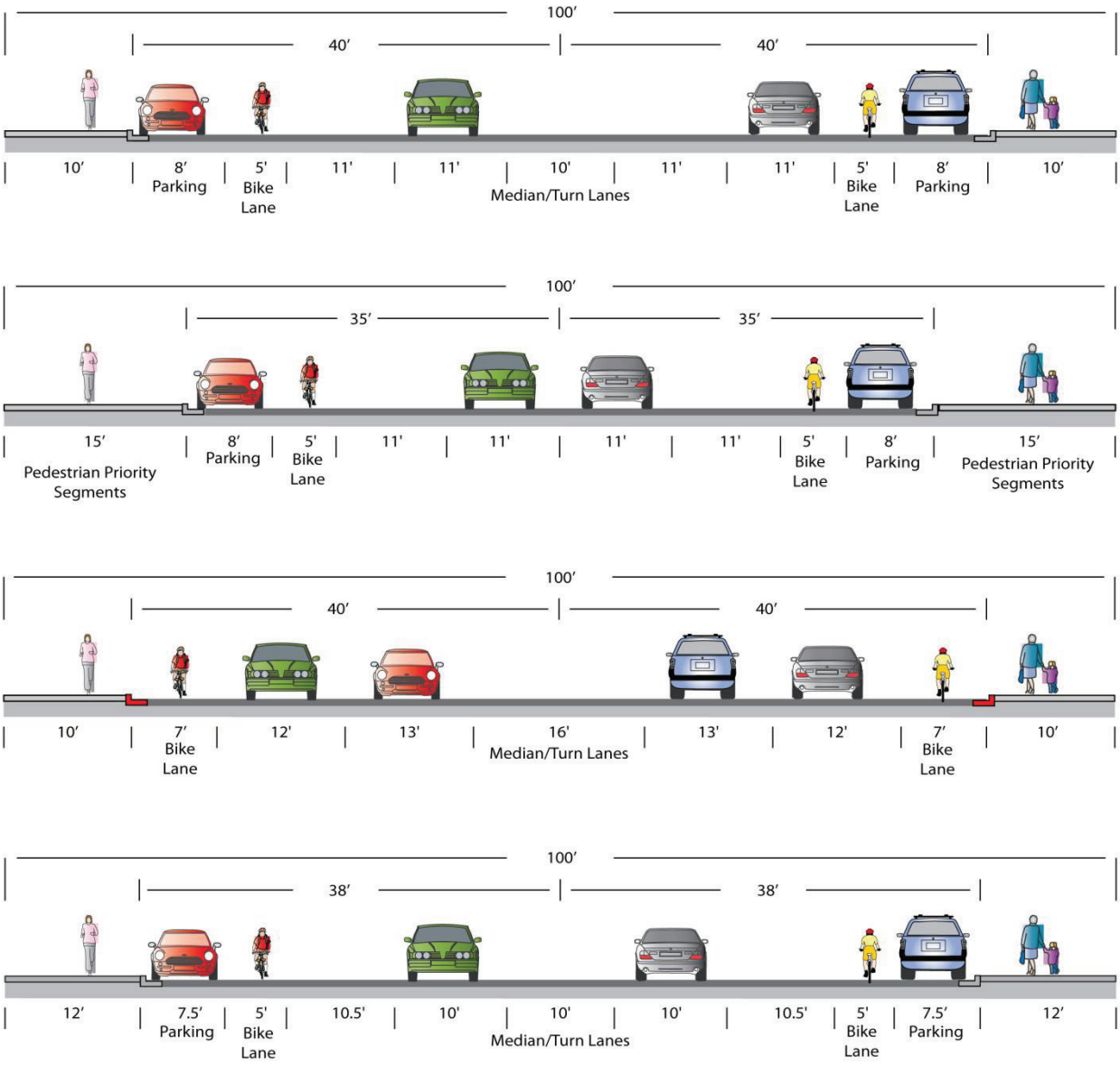


Figure 1-3 Primary Arterial - Complete Streets

1.3. Design of Bicycle Paths

A bicycle path (Caltrans designation Class I) allows for two-way, off-street bicycle use. Other non-motorized users may legally use the bicycle path in California if there is no parallel pedestrian path. Culver City has these facilities along Ballona Creek and Culver Boulevard, west of Elenda Street. Class I facilities can also include amenities such as lighting, signage, and fencing. Chapter 1000 of the HDM dictates the design of Class I facilities in California.

1.3.1. General Design Practices

Bicycle paths can provide a desirable facility for novice riders and children, recreational riders, and long distance commuter cyclists of all skill levels preferring separation from traffic. Bicycle paths should generally provide directional travel opportunities not provided by existing roadways. Some of the elements that enhance off-street path design include:

- Frequent access points from the local road network. If access points are spaced too far apart, users may have to travel out of their way to enter or exit the path, which can discourage use
- Grade-separated crossings with streets or driveways
- Wayfinding signs that direct users to and from the path and major roadway crossings
- Appropriate pavement load thresholds to allow heavy maintenance equipment to use the path without causing damage
- Intersection designs that alert motorists to the presence of cyclists, and that alert cyclists to the presence of motor vehicles
- Security prevention measures
- Separate pedestrian paths to reduce conflicts with bicycles
- Landscape designs to accommodate bicycles and discourage loitering

Both the California HDM Chapter 1000 and the AASHTO Guide for the Development of Bicycle Facilities generally recommend against developing bicycle paths directly adjacent to roadways. Also known as "side paths", these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic and can result in wrong-way riding when either entering or exiting the path. This can also result in an unsafe situation where motorists entering or crossing the roadway at intersections and driveways do not notice cyclists coming from their right, as they are not expecting traffic coming from that direction. In addition, stopped cross-street motor vehicle traffic or vehicles exiting side streets or driveways may frequently block paths or pull out unexpectedly. Cyclists traveling from an unexpected direction also go unnoticed, especially when sight distances are poor.

Agencies should consider bicycle paths along roadways under the following conditions:

- The path will separate users from all motor vehicle traffic with few intersections with motor vehicles
- The corridor anticipates high bicycle use or the corridor demonstrates a need for facilities for novice cyclists
- The path provides continuity with an existing path through a roadway corridor
- The path can terminate at each end onto streets with good bicycle facilities, or onto another well-designed path
- There is adequate access to local cross-streets and other facilities along the route
- Grade separation structures do not add substantial out-of-direction travel

California Vehicle Code §21208 requires cyclists to ride in an on-road designated bicycle lane with exceptions but does not require cyclists to ride on paths. Roadway design parallel to bicycle paths should still allow cyclists to use the road as provided by law using appropriate bicycle design.

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1.4. Design of Bicycle Lanes

Bicycle lanes, Caltrans designation Class II bicycle facilities, are portions of the roadway designated by striping, signage, and pavement markings for the preferential or exclusive use of cyclists. Bicycle lanes provide cyclists with a designated space on the roadway and enable them to ride at their preferred speed without interference from prevailing traffic conditions. Bicycle lanes facilitate predictable behavior and movements between cyclists and motorists. Cyclists may leave the bicycle lane to pass other cyclists, make left turns, avoid obstacles or debris, merge with traffic at intersections, and to avoid conflicts with other roadway users.

1.4.1. General Design Guidance

Width:
Varies depending on roadway configuration; but are at least 5' wide.



*R*81 (CA) Sign

Striping:
Line separating vehicle lane from bicycle lane: 6 inches

Line separating bicycle lane from parking lane: 4 inches

Dashed white stripe when:

- Vehicle merging area - Approximately 50 feet to 200 feet
- Delineate conflict area in intersections (optional) - Length of conflict area



Figure 1-4. Approved "Bike Lane" Stencils

Signing:
Use R81 (CA) Bike Lane Sign at:

- Beginning of Bicycle Lane
- At approaches and at far side of all arterial crossings
- At major changes in direction
- At intervals not to exceed ½ mile

Pavement Markings:
Pavement markings for bicycle lanes shall be the 'BIKE LANE' stencil or graphic representation of a cyclist with directional arrow (preferred) to be used at:

- Beginning of Bicycle Lane
- Far side of all bicycle path (Class I) crossings
- At approaches and at far side of all arterial crossings
- At major changes in direction
- At intervals not to exceed ½ mile
- At beginning and end of bicycle lane pockets at approach to intersection.

1.4.2. Bicycle Lane Next to On-Street Parallel Parking

Design Summary

Bicycle Lane Width:

12'6" minimum (14' preferred) for a shared bicycle/parking lane adjacent to a curb face, or 11' minimum where parking is permitted but not marked on streets without curbs.

5' minimum recommended when parking stalls are marked

7' maximum

Discussion

Bicycle lanes adjacent to on-street parallel parking are common in the United States. One hazard for cyclists using this type of facility is a crash onto a suddenly-opened vehicle door. Providing wider bicycle lanes is one way mitigate against potential cyclist collisions with car doors. However, if the outer edge of the bicycle lane abuts the parking stall, cyclists may still ride too close to parked cars. Bicycle lanes that are too wide may also encourage vehicles to use the bicycle lane as a loading zone in busy areas where on-street parking is typically full. Some motorists may try to drive in overly-wide bicycle lanes. Encouraging cyclists to ride farther away from parked vehicles will increase the safety of the facility.

If sufficient space is available, the preferred design (upper right) provides a buffer zone between parked cars and the bicycle lane. This could be accomplished by using parking "T's" to increase separation; Culver City typically installs parking 'T's adjacent to metered parking.

Design Example



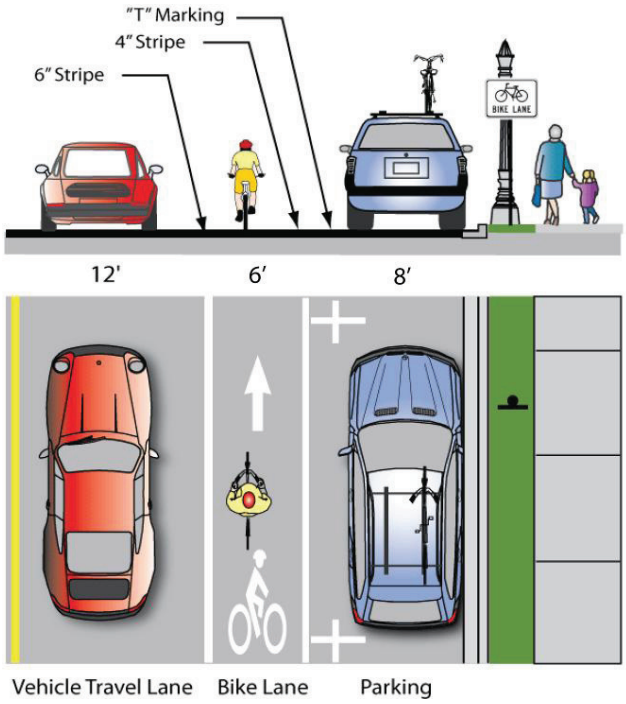
Guidance (see following page)

CaMUTCD

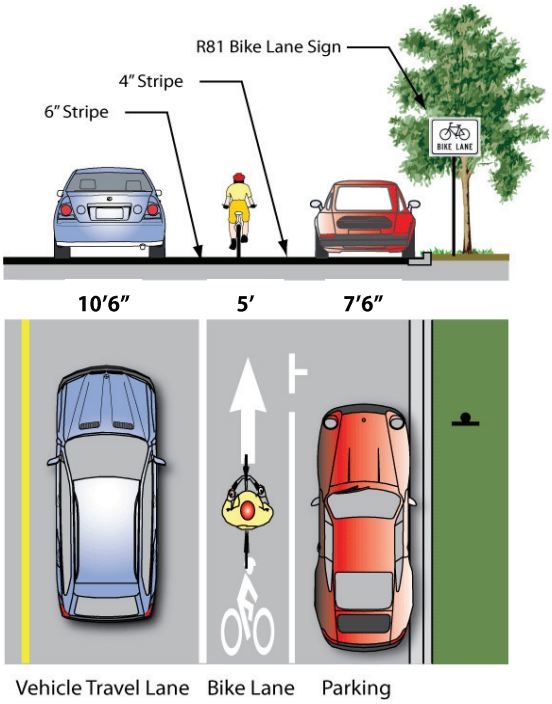
Caltrans Highway Design Manual (Chapter 1000)

AASHTO Guide for the Development of Bicycle Facilities

Preferred Design (if space is available)



Minimum Design



1.5. Design of Bicycle Routes

Bike Routes – Caltrans designation, Class III are roadway facilities shared between cyclists and motor vehicles. Agencies typically install bicycle routes on roads with low speeds and traffic volumes; however, agencies can install bicycle routes on higher volume roads with wide outside lanes or with shoulders. A motor vehicle driver will usually have to cross over into the adjacent travel lane to pass a cyclist, unless the road provides a wide outside lane or shoulder.

From Caltrans HDM Chapter 1000:

> "Class III bikeways (bicycle routes) are intended to provide continuity to the bikeway system. Bicycle routes are established along through routes not served by Class I or II bikeways, or to connect discontinuous segments of bikeway (normally bicycle lanes). Class III facilities are shared facilities, either with motor vehicles on the street, or with pedestrians on sidewalks, and in either case bicycle usage is secondary. Class III facilities are established by placing Bicycle Route signs along roadways."
>
> Bicycle Routes can employ a large variety of treatments from simple signage to complex treatments including various types of traffic calming and/or pavement stenciling. The level of treatment to be provided for a specific location or corridor depends on several factors.

1.5.1. General Design Guidance

Width:

Varies depending on roadway configuration; but they are used when there is not sufficient roadway width to provide a bike lane.

Striping:

If shoulder is present, the design should use a 4-inch edge line separating vehicle lane from shoulder for bicycle use.

Signing:

Use D11-1 "Bicycle Route" Sign at:

- Beginning or end of Bicycle Route (with applicable M4 series sign below)
- Entrance to bicycle path (Class I) - optional
- At major changes in direction or at intersections with other bicycle routes (with applicable M7 series sign below)
- At intervals along bicycle routes not to exceed ½ mile



D11-1 Sign

Pavement Markings:

Agencies may apply Shared Lane Markings ("Sharrows") to Bicycle Routes per the CaMUTCD.

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1.6. Bike Routes in Culver City

There are several types of bike routes recommended for use in Culver City.

Arterial Roads with Signage/Wayfinding Only

Some bike routes are located on arterial streets and are designated by signage/wayfinding only. Signage and wayfinding are minimal measures along streets that cyclists are currently using. This type of route serves as means of closing a gap in the bikeway network. Examples of this facility can be found along segments of Washington Boulevard, Culver Boulevard, and Adams Boulevard.

Arterial Roads with Signage/Wayfinding and Shared Lane Markings/"Sharrows"

In addition to routes with signage and wayfinding, some streets will have Shared Lane Markings (SLM or "Sharrows"). Sharrows intend to educate cyclists on ideal lane position, and remind motorists of cyclists' right to use the road. Agencies typically use sharrows on roads with high cyclist demand and that are critical to the overall network. The BPMP recommends these facility types on Duquesne Avenue and segments of Washington Boulevard.

Bicycle Friendly Streets

Streets with low traffic volumes, and high connectivity to schools, parks, commercial destinations and other activity centers may receive the Bicycle Friendly Streets designation. These streets could feature any of the above-mentioned design features, as well as traffic calming/diverting measures. Proposed Bicycle Friendly Streets include Braddock Avenue, Elenda Street, and Farragut Avenue, pending a traffic engineering analysis and possible improvements, like traffic diverters and roadway striping. A traffic engineering analysis and, if necessary, the Neighborhood Traffic Management Program (NTMP) process, will determine whether a street meets criteria to become a Bike Friendly Street.

1.6.1. Sharrows (Shared Lane Markings, SLMs)

Design Summary

Door Zone Width:

The width of the door zone is generally assumed to be 2.5 feet from the edge of the parking lane.

Recommended SLM placement:

Minimum of 11' from edge of curb where on-street parking is present but may be placed more than 11 feet as conditions support. If parking lane is wider than 8', the SLM should be moved further out accordingly.

Discussion

California recently introduced Sharrow stencils as an additional treatment for Class III facilities. Sharrows are currently only allowed in conjunction with on-street parking.

The stencil can serve a number of purposes, such as reminding cyclists to ride further from parked cars to reduce potential "dooring" collisions, making motorists aware of bicycles potentially in their lane, and showing cyclists the correct direction of travel. Caltrans officially adopted the use of SLMs with the 2003 CaMUTCD.

Agencies may consider placing the SLM between vehicle tire tracks (meeting CaMUTCD guidance) as it will increase the life of the markings and the long-term cost of maintenance.

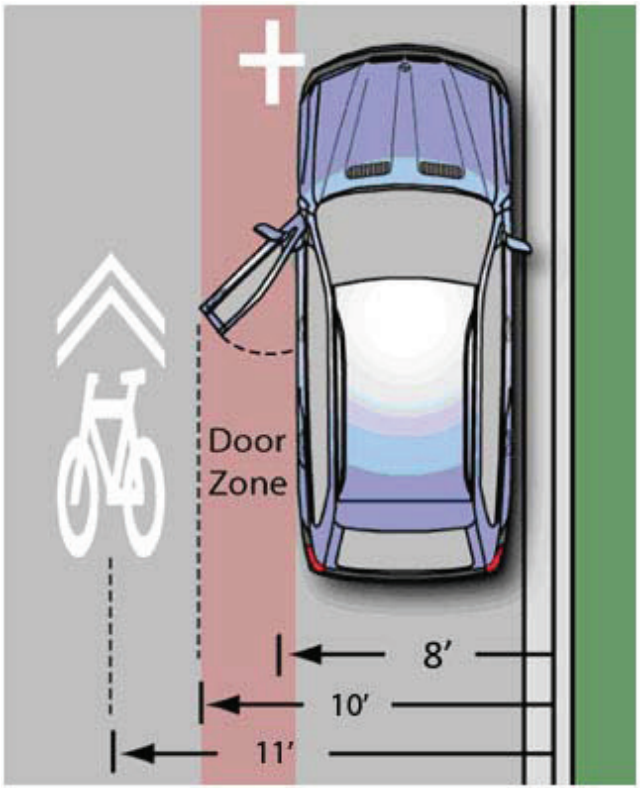
Design Example



Guidance

CaMUTCD

Minimum Design



**Per MUTCD*

1.6.2. Bicycle Friendly Street (BFS)

Design Summary

Bicycle Friendly Streets (BFS) generally are installed on minor or local roadways. There are currently no design standards. See following pages for additional information. A traffic engineering analysis and, if necessary, the Neighborhood Traffic Management Program (NTMP) process may determine the need for additional traffic calming measures.

Discussion

It is important to provide a benefit to the cyclist choosing to ride on Bicycle Friendly Streets. Frequently these benefits are reduced travel time, lower motor vehicle traffic volumes and/or reduced motor vehicle speeds. Ideally, the cyclist should not stop frequently. The City should closely monitor a Bicycle Friendly Street or bicycle route following treatment to see if there is an increase in vehicle trips along the bicycle route, as some motorists may take advantage of fewer stops and reduce the facility's effectiveness for bicycles. If motor vehicle ADT increases, a traffic engineering analysis may recommend treatments such as diagonal diverters, one-way closures, chicanes, chokers and other applicable treatments to preserve bicycle permeability and limit through vehicle access.

See following pages for additional discussion.

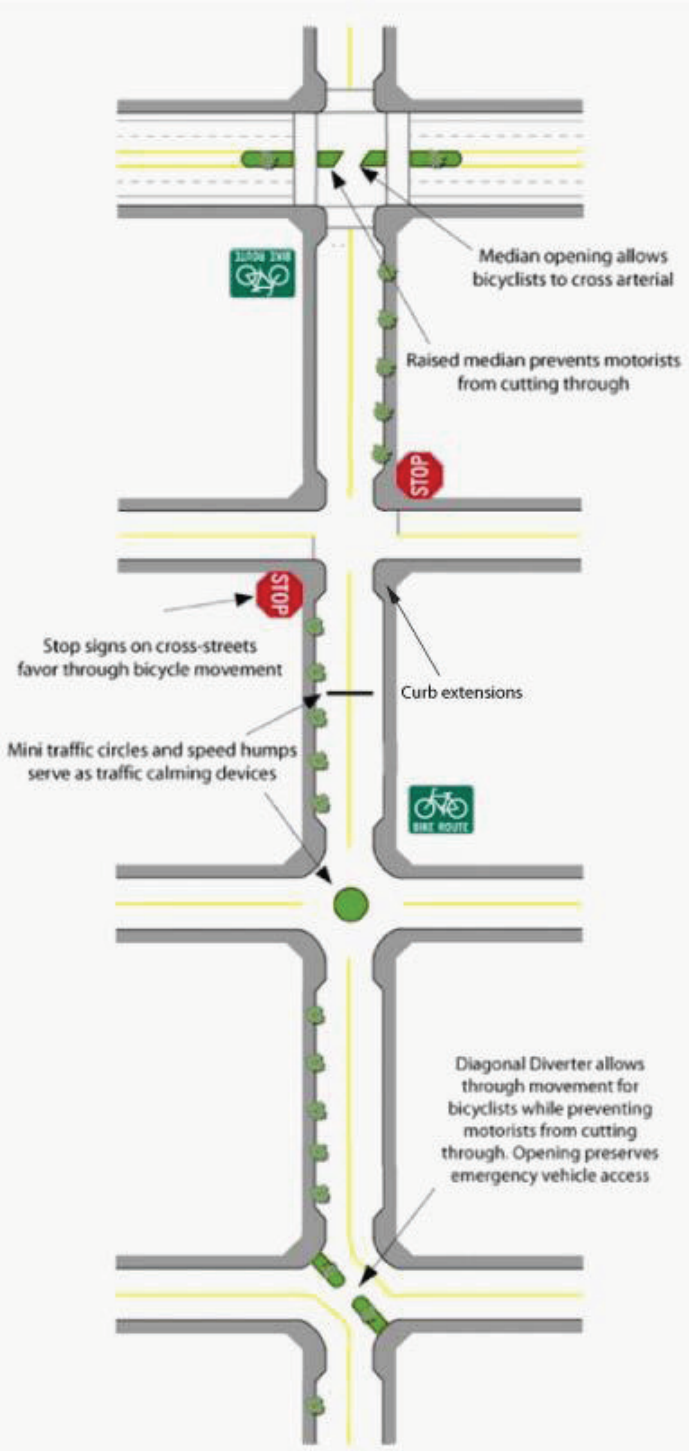
Design Example



Guidance

No explicit guidance in State or Federal manuals

Potential Design Elements of a Bicycle Friendly Street



1.6.3. Additional Discussion - Bicycle Friendly Streets (BFS)

This section describes various treatments commonly used for developing Bicycle Friendly Streets. The treatments fall within five main "application levels" based on their level of physical intensity, with Level 1 representing the least physically-intensive treatments that the City could implement at relatively low impact on roadways that already function well for cyclists. Identifying appropriate application levels through traffic engineering analyses for individual Bicycle Friendly Street corridors provides a starting point for selecting appropriate site-specific improvements. The five Bicycle Friendly Street application levels include the following:

Level 1: Signage

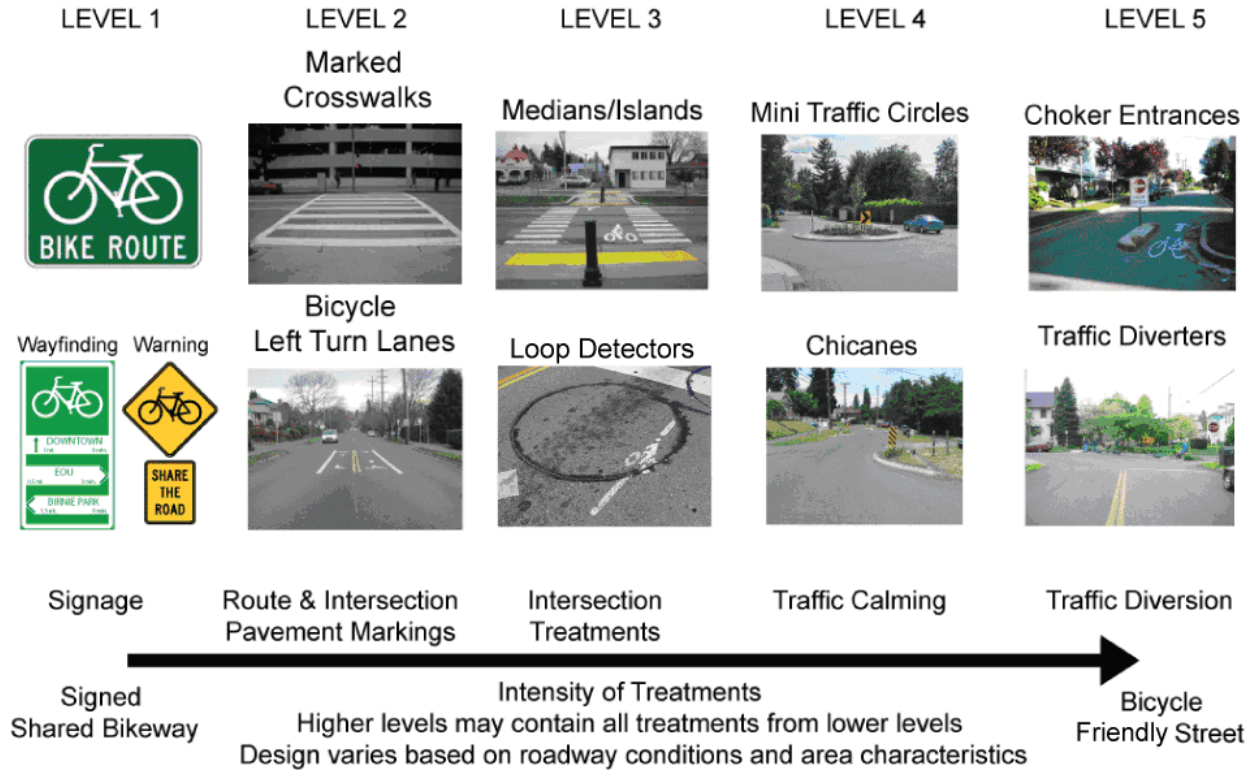
Level 2: Pavement markings

Level 3: Intersection treatments

Level 4: Traffic calming

Level 5: Traffic diversion

It should be noted that corridors targeted for higher-level applications would also receive relevant lower-level treatments (as illustrated below). For instance, a street targeted for Level 3 applications should also include Level 1 and 2 applications as necessary. Some applications may be appropriate on some streets while inappropriate on others. In other words, not "Level 2" applications are appropriate or necessary on a Level 2 street. Furthermore, several treatments could fall within multiple categories as they achieve multiple goals. To identify and develop specific treatments for each Bicycle Friendly Street, the City may involve the bicycling community and neighborhood groups. Further traffic analysis and engineering work may also be necessary to determine the feasibility of some applications.



1.6.4. Bicycle Route/BFS Signing & Pavement Markings

Design Summary

Design varies; see following page for additional discussion.

Discussion

Bikeway signage is a cost-effective yet highly-visible treatment that can improve the riding environment on a Bicycle Friendly Street network. Described in this section, signage can serve both wayfinding and safety purposes.

See following page for additional discussion:

Design Example



Guidance

CaMUTCD

Caltrans Highway Design Manual (Chapter 1000)

AASHTO *Guide for the Development of Bicycle Facilities* Chicago's Bikeways Signage System - www.bikewalk.org/2006conference/vconference/presentations/GrantDavisChicagosBikewaysSignageSystem.pdf

Potential Signage/Wayfinding Options

(not comprehensive)



Loop Detector Pavement Marking

Shared Lane Marking (SLM)



D11-1



M1-8



M4-11



M4-12



M4-13



D1-1b (R)



M7-1



D1-1b (L)



D1-1c



M7-5



M7-6



M7-7



M7-2



M7-3



M7-4

1.6.5. Additional Discussion - Bicycle Route/BFS Signing & Pavement Markings

Wayfinding Signs

Shown on the previous page, wayfinding signs denote key locations leading to and along Bicycle Friendly Streets, including where multiple routes intersect and at key cyclist "decision points." Wayfinding signs displaying destinations, distances and "riding time" can dispel common misperceptions about time and distance while increasing users' comfort and accessibility to the Bicycle Friendly Street network. Wayfinding signs also visually cue motorists that they are driving along a bicycle route and should correspondingly use caution. However, overusing road signs may clutter the right-of-way and be aesthetically displeasing.

Warning signs

Warning signs advising motorists to "share the road" and may also improve bicycling conditions on a Bicycle Friendly Street network. These signs are especially useful near major bicycle trip generators such as schools, parks and other activity centers. Major streets approaching Bicycle Friendly Streets should have warning signs to alert motorists of bicycle crossings.

Pavement Markings

Pavement marking techniques may also improve bicycling conditions along a Bicycle Friendly Street network, which may include Shared Lane Markings and loop detector markings. Sharrows (SLMs – See Section **1.6.1**) are appropriate on streets where dedicated bicycle lanes are desirable but not feasible due to physical or other constraints. They may also designate Bicycle Friendly Street on streets with curbside parking.

On-Street Parking Delineation

Delineating on-street parking spaces with parking Ts clearly indicates where a vehicle should be parked, and can discourage motorists from parking their vehicles too far into the adjacent travel lane. This helps cyclists by maintaining a wide enough space to safely share a travel lane with moving vehicles while minimizing the need to swerve farther into the travel lane to maneuver around parked cars and opening doors. In addition to benefiting cyclists, delineated parking spaces also promote the efficient use of on-street parking by maximizing the number of spaces in high-demand areas.

Loop Detector Stencils

At signalized intersections with in-pavement detection, loop detector stencils should indicate where cyclists should wait to activate a green light. (See Section **1.7.3**)

1.6.6. Bicycle Route/BFS at Local Intersections – Mini Round About

Design Summary

Design varies; see below.

Discussion

Roundabouts can be effective in several scenarios when used along a Bicycle Friendly Street and cross-streets. Typically mini roundabouts may be considered where the Bicycle Friendly Street intersects a local street or even a collector if the ADT is less than 2,000. Signage and striping treatments should be implemented based on traffic volumes and may be appropriate for local/local intersections with very low ADT, while increased signage and splitter striping may be appropriate for larger ADTs and intersections with collector streets. Mini roundabouts can be landscaped with drought tolerant plants that do not impact sight lines for added visual impact and traffic calming effect. Treatment should be designed with the input of CCPD and CCFD for emergency vehicle access.

Advantages:

- Very effective at reducing through bicycle and cross vehicle conflicts
- Adds overall traffic calming in all directions
- Use where unwarranted stop signs exist

Disadvantages:

- Moderate cost (approx $20,000 per intersection)
- Requires approval of neighborhood for installation
- Requires neighborhood support and adoption for maintenance of landscaping if installed
- Automobiles must yield to pedestrians rather than explicitly stop, as with stop-sign control.
- Can create auto-bike conflicts.

Guidance

CaMUTCD

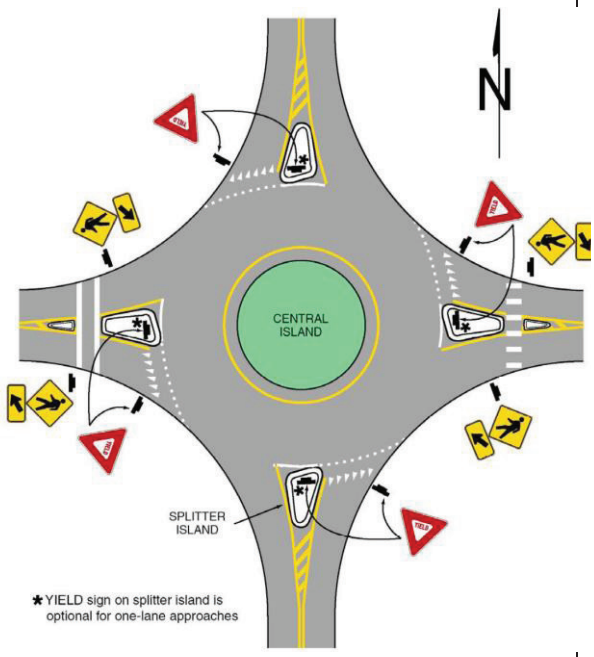
Caltrans Highway Design Manual (Chapter 1000)

AASHTO *Guide for the Development of Bicycle Facilities* Berkeley Bicycle Boulevard Design Tools and Guidelines

FHWA *Roundabouts: An Informational Guide*

Design Example





1.6.7. Bicycle Route/BFS at Local Intersections – Stop Signs on Cross-Streets

Design Summary

Design varies; see below and following pages for additional discussion.

Discussion

The installation of a stop sign on cross streets along the Bicycle Friendly Street or bicycle route maximizes through bicycle connectivity and speed and forces motorists crossing the facility to stop and proceed when safe. This treatment may be unwarranted and should be considered a traffic calming tool rather than a traffic control device.

Advantages:

- Inexpensive installation
- Effective at reducing though bicycle and cross vehicle conflicts

Disadvantages:

- May be unwarranted as traffic control device

Guidance

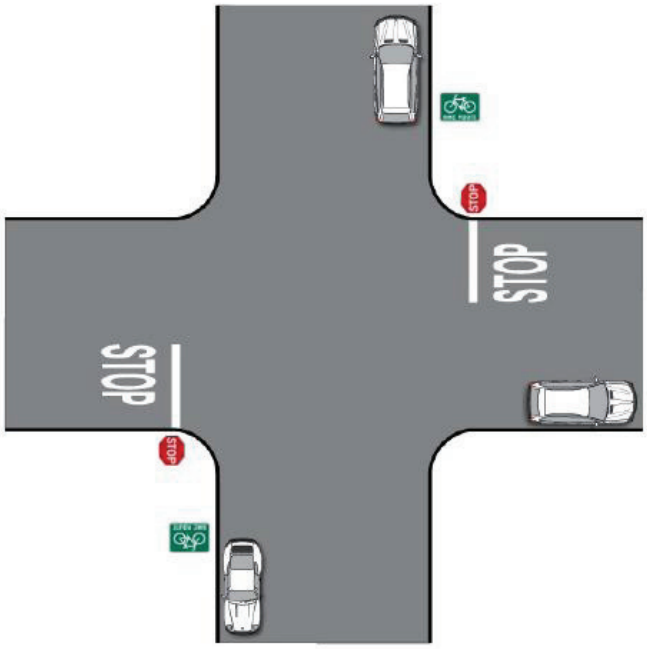
CaMUTCD

Caltrans Highway Design Manual

AASHTO *Guide for the Development of Bicycle Facilities*
Berkeley Bicycle Boulevard Design Tools and Guidelines
http://webserver.ci.berkeley.ca.us/uploadedFiles/Public_Works/Level_3_-_General/ch4_.pdf

Design Example

Stop Signs on Cross Streets



1.6.8. Bicycle Route/BFS at Local Intersections – Curb Bulbouts and High-Visibility Crosswalks

Design Summary

Design varies; see below and following pages for additional discussion.

Discussion

This treatment may be appropriate for Bicycle Friendly Streets or bicycle routes near activity centers that generate large amounts of pedestrian activity, such as schools or commercial areas. The bulbouts should only extend across the parking lane and should not obstruct cyclists' travel paths or the travel lane. The City would typically combine this treatment with a stop sign or other traffic control device.

Advantages:

- Traffic calming device

Disadvantages:

- May impact on-street parking
- Moderate cost (approx $5,000-$15,000 per intersection)
- May impact bus/truck turning movements
- May cause wider right-turn movement
- May constrict auto and bike traffic
- May impact emergency vehicles
- May impact drainage

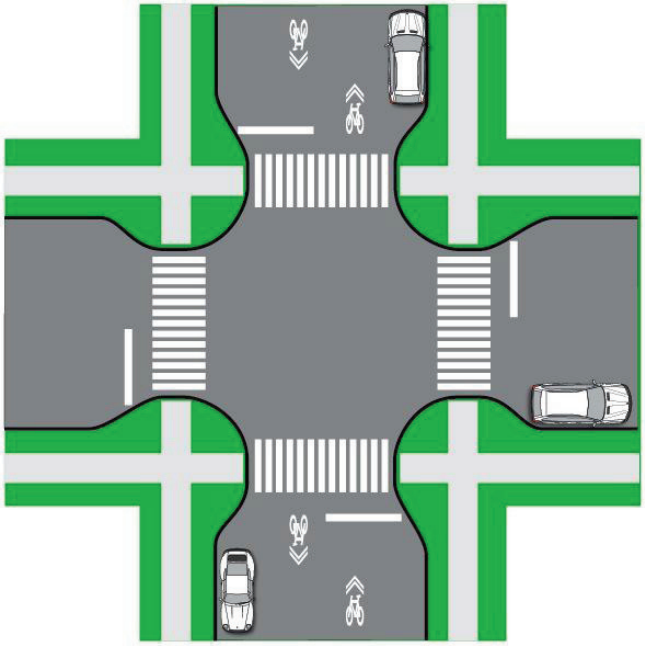
Guidance

AASHTO Guide for the Development of Pedestrian Facilities

Berkeley Bicycle Boulevard Design Tools and Guidelines
http://webserver.ci.berkeley.ca.us/uploadedFiles/Public_Works/Level_3_-_General/ch4_.pdf

Design Example

Curb Bulbouts and High-Visibility Crosswalks



1.6.9. Bicycle Route/BFS at Local Intersections – Diagonal Diverter

Design Summary

Design varies; see below and previous pages for additional discussion.

Discussion

This treatment prevents through vehicle traffic and is appropriate for Bicycle Friendly Streets or Bicycle Routes where there are high amounts of undesired through vehicle traffic. The diverter should allow emergency vehicles to permeate the diverter with a minimum amount of delay. The diverter design can include landscaping with features to enhance the greenspace of the neighborhood, but that do not impact sight lines.

Advantages:

- Traffic calming device
- Reduces through vehicle movements along BFS

Disadvantages:

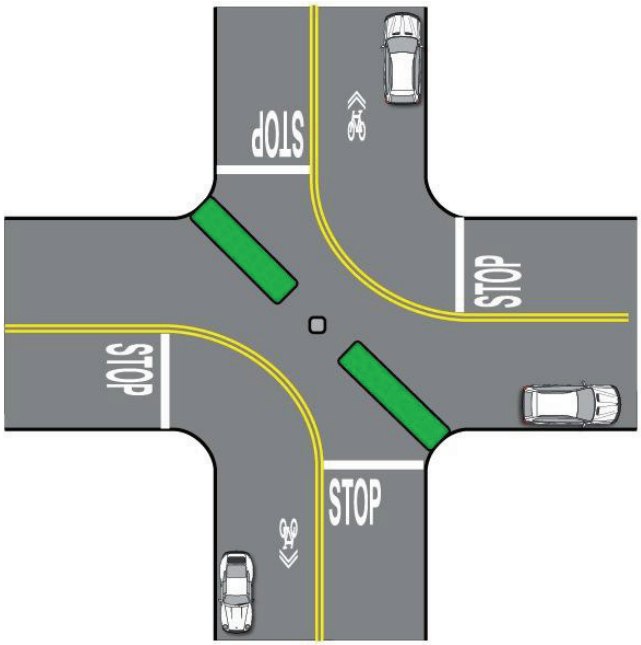
- May slightly slow emergency responders
- Moderate cost (approx $4,000-$10,000 per intersection)
- May impact street maintenance and, if landscaped, may require neighborhood landscape maintenance
- Traffic will divert onto other nearby streets

Guidance

Berkeley Bicycle Boulevard Design Tools and Guidelines http://webserver.ci.berkeley.ca.us/uploadedFiles/Public_Works/Level_3_-_General/ch4_.pdf

Design Example

Diagonal Diverter



1.6.10. Bicycle Route/BFS at Local/Major Signalized Intersections

Design Summary

Design varies; see following page for additional discussion.

Discussion

Signalized intersections at Bicycle Friendly Street must detected cyclists in order to be effective.

The photo below depicts an intersection of a Bicycle Friendly Street at a major street with embedded loop detection.

See adjacent column for additional discussion:

Design Example





Guidance

CaMUTCD

Caltrans Highway Design Manual (Chapter 1000)

AASHTO *Guide for the Development of Bicycle Facilities*

Special Considerations for Cyclists at Local/Major Signalized Intersections

A signalized intersection that properly accounts for cyclists crossing a major roadway should consider the following:

- Easy and accurate detection by the traffic signal controller by one of the following:
  - Embedded loops with placement and sensitivity to detect a bicycle. Identify loop with the standard "Bicycle Detector Symbol" shown in Figure 9C-7(CA) in the CaMUTCD
  - Cyclist-activated push buttons, as long as they do not require cyclists to dismount or make unsafe leaning movements. These devices should be as close to the street as possible in a location unobstructed by parked vehicles or motorists making right-hand turns.
  - Video detection technology
- Safe location to wait for green signal – Cyclists awaiting a green light should not block vehicle right turns (if allowed). Sufficient lane width or stenciling can help with lane positioning and traffic flow
- Signal timing providing adequate time for cyclists to safely cross the intersection

In situations with few crossable gaps and where vehicles on the major street do not stop for pedestrians and cyclists waiting to cross, "half signals" that stop traffic only along one of the streets could be installed to improve the crossing environment. Half signals include bicycle activation buttons and may also include bicycle loop detectors on the Bicycle Friendly Street approach. Many of these models have been used successfully for years overseas, and their use in the U.S. has increased dramatically over the last decade.

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1.7. Signalization

As the needs and characteristics of bicycles and motor vehicles vary greatly, adequately accommodating cyclists at traffic signals can be challenging for traffic engineers. This section contains guidance on bicycle detection at signals, bicycle pavement markings at signals, and bicycle signals.

1.7.1. Bicycle Considerations at Traffic Signals:

Bicycles typically travel much slower than motor vehicles and can find themselves without an adequate time to clear an intersection. The duration of the amber phase of signals is typically sufficient to allow motor vehicles to clear an intersection at the prevailing speed; however, cyclists typically average only 10 mph through intersections. Adjustments to signal timing must meet Caltrans standards for interval duration. Methods for accommodating cyclists include:

- Lengthening the amber phase of the intersection slightly to allow for the slower speed of cyclists: Longer amber phases can also encourage motor vehicles to enter intersections under this phase.
- Lengthening the 'all red' phase of the intersection. This allows vehicles or cyclists to clear the intersection before opposing traffic receives a green phase. The maximum length of the 'all red' phase should not generally be greater than two seconds. Under no circumstances should this time extend beyond three seconds.
- Coordinating signals to allow for the 10-15 mph propagation speed of cyclists. Sometimes it is possible to alter signal timing to provide 'green waves' for cyclists without significantly impeding motor vehicle flow. These improvements may slow other motorized traffic including buses.
- Increasing the minimum green interval: Cyclists have slower speeds and accelerations than motor vehicles and even if they are at the stop line when a green light is given, the cyclist may still lack sufficient time to clear the intersection before a conflicting green phase.
- Using signal detection to detect moving cyclists: Some video detection technology may detect cyclists with adjustments to programming, and alter the minimum green phase or the clearance interval based on their presence.

1.7.2. Loop Detectors

Design Summary

In order to minimize delay to cyclists, it is recommended to install one loop about 100 ft from the stop bar within the bicycle lane, with a second loop located at the stop bar.

Details of saw cuts and winding patterns for inductive detector loop types appear on Caltrans Standard Detail ES-5B.

Discussion

The Type E loop, or Diagonal "Quadracircle", is the standard auto detection device at signalized intersections in the City of Culver City

Design Example



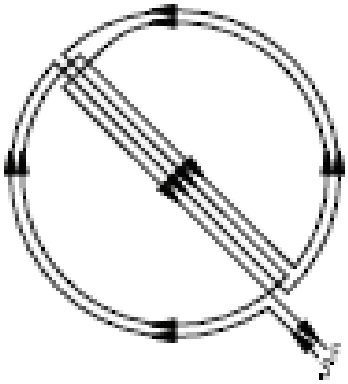
Guidance

CaMUTCD

Caltrans Highway Design Manual (Chapter 1000)

Caltrans Standard Plans (1999) ES-5B

AASHTO Guide for the Development of Bicycle Facilities



Diagonal "Quadracircle" – Type "E"

- Loops can detect metallic objects, with the signal strongest when passing near the loop edges and weakest when passing through the loop center.
- Loops can detect wide objects but have difficulty detecting narrow objects like bicycles.
- Pavement markings can note loop edges and guide bicyclists on proper positioning.
- Bicycles increasingly use non-metallic materials, e.g. carbon fiber frames and wheels.

1.7.3. Loop Detector Pavement Markings

Design Summary

Locate Bicycle Detector Pavement Marking where bicycle can be detected in a shared lane by loop detector or other detection technology.

Discussion

Bicycle Detector Pavement Markings guide cyclists into optimal position to trigger an actuated intersection signal. Signal detection devices may require adjustments before they are capable of detecting a bicycle. Detectors for traffic-actuated signals must pass through the cyclist's expected path, including left-turn lanes and shoulders. Video detection is an effective alternate technique to loop detection.

Design Example

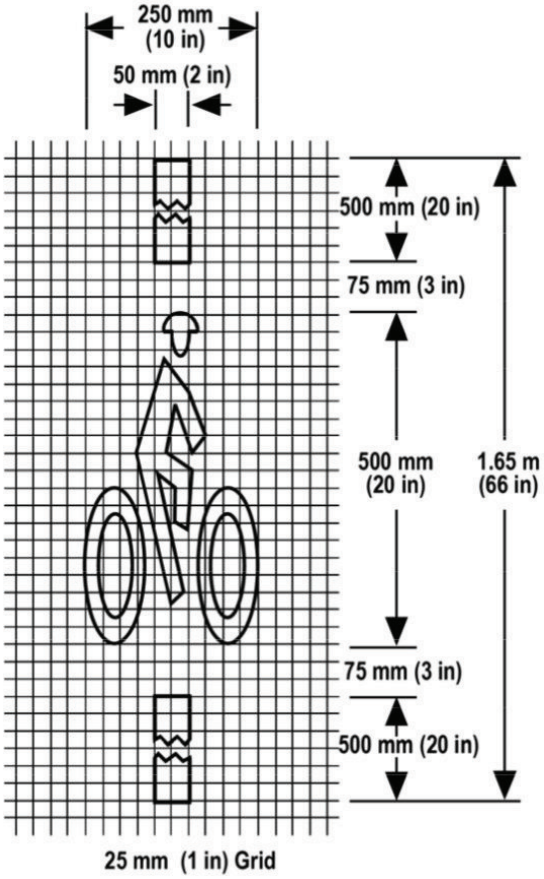


Guidance

CaMUTCD

AASHTO Guide for the Development of Bicycle Facilities

Figure 9C-7 – CA MUTCD



Accompanying Signage (R10-22)



1.7.4. Bicycle Signals

Design Summary

Part 4 of the CaMUTCD covers bicycle signals.

Support:

A bicycle signal is an electrically powered traffic control device that may only be used in combination with an existing traffic signal. Bicycle signals shall direct cyclists to take specific actions and may be used to improve an identified safety or operational problem involving bicycles.

Standard:

Only green, yellow and red lighted bicycle symbols shall be used to implement bicycle movement at a signalized intersection.

A separate signal phase for bicycle movement shall be used.

Guide:

Alternative means of handling conflicts between bicycles and motor vehicles should be considered first. The City will apply bicycle signals only at locations that meet CaMUTCD Bicycle Signal Warrants.

Two alternatives to consider include:

1. Striping to direct a cyclist to a lane adjacent to a traffic lane such as a bicycle lane to left of a right-turn-only lane

2. Redesigning the intersection to direct a cyclist from an off-street path to a bicycle lane at a point removed from the signalized intersection

The City should consider a bicycle signal phase only after a trial with these or other less restrictive remedies does not show a reduction in collision frequency.

Discussion

Bicycle signals are an approved traffic control device in the State of California following an experiment in the City of Davis.

Bicycle signals can be actuated with bicycle sensitive loop detectors, video detection, or push buttons.

Instructional and regulatory signage should be considered with installation of new bicycle signals. This signage is not standard and will have to be created for the installation.

See images at right for examples and see the following page for additional discussion.

Guidance

Caltrans Highway Design Manual (Chapter 1000)

CaMUTCD

Design Example



Instruction Sign



Signal Detection with Pavement Marking



Additional Discussion – Bicycle Signals

Use:

Bicycle signals are effective in locations with heavy bicycle traffic combined with significant conflicts with motor vehicles, at intersections with unique geometry, or at the interface between busy roads and off-street bicycle facilities. Bicycle signals have a demonstrated positive effect at situations that include:

- High volume of cyclists at peak hours
- High numbers of bicycle/motor vehicle crashes, especially those caused by crossing paths
- T-intersections with major bicycle movement along the top of the T
- The confluence of an off-street bicycle path and a roadway intersection
- Separated bicycle paths that run parallel to arterial streets

Legal Clarification:

While California approves using bicycle signals, the local municipal code should clarify that cyclists should only obey the bicycle signal heads at intersections when it conflicts with vehicular signalization.

Advantages:

- Separates conflicting movements
- Provides cyclists priority movement at intersections
- Protects cyclist movements in an intersection, which may improve real and perceived safety at high conflict areas
- Alternates right-of-way between different road users

Disadvantages:

- May result in additional delay for motorists and loss of vehicular capacity, particularly where a scramble phase is employed
- May create a false sense of security for cyclists because they believe the bicycle signal phase will protect them
- Unfamiliar drivers may become confused or uncertain about the signal's intended purpose

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1.8. Bicycle Parking

Bicycle parking is a support facility that allows cyclists to store their bicycles upon reaching a destination. Bicycle parking has two general categories: short term and long term. Short term bicycle parking accommodates users running errands or quick activities. Long term bicycle parking accommodates users parking for extended periods, such as at the end of a work commute or during an overnight stay.

1.8.1. General Design Guidance

Accessibility and Location

Bicycle parking should locate as close as possible to the main entrance of a building/establishment. Racks should be no farther than 50 feet away from the primary entrance. Bicycle parking should be visible to cyclists, building security, foot traffic, and anyone approaching the building. Making bicycle parking visible to foot traffic reduces the incidents of theft and vandalism. Prominent bicycle parking also advertises bicycling as a viable travel option to cyclists and non-cyclists alike.

If possible, provide lighting for bicycle parking areas. Cyclists, like motorists, prefer to park in a well-lit place.

If possible, provide situate the rack in an area covered from the elements. Cyclists do not want to sit on a wet seat or leave their bicycle out in the rain.

Install parking devices that support the bicycle frame at two points, and not only at the wheel. Bicycle parking devices that do not support the frame may allow the bicycle to fall and bend the wheel or damage the bicycle in some other way.

The Public Works Department should determine where to locate bike parking in the public right-of-way.

1.8.2. Inverted – U Bicycle Racks

Design Summary

Rack Dimensions: 35" high by 30" long.

Construction: 2 3/8" x 2" x .188" wall single Schedule 40 ASTM A53 Steel pipe, constructed of a single 180 degree bend.

Base Plate is ASTM A36 with a thickness of 3/8" welded onto the steel pipe. The base plate should accommodate mounting hardware with three 0.50" diameter holes at 120 degrees of each plate.

Mounting Hardware: Mushroom Head, Stainless Steel Spike. 2 ¾" long by ½" diameter or equivalent vandal resistant hardware. Unacceptable fasteners include "Threaded Spike" or anything containing sharp edges or that can be vandalized.

Coating Material Finish: Long wearing, mildew and ultraviolet ray resistant coating made of polyester, polyvinyl, thermoplastic or TGIC Powder Coating. Coated in the factory prior to delivery. Any damaged surface area resulted from the Contractor's operation shall be repaired with approved materials in accordance to the manufacturer's specifications.

Discussion

These racks are common in many cities. Agencies should take care to place and install the racks correctly. The rack shall not obstruct access to/from parked vehicles nor be within 15 feet of fire hydrants.

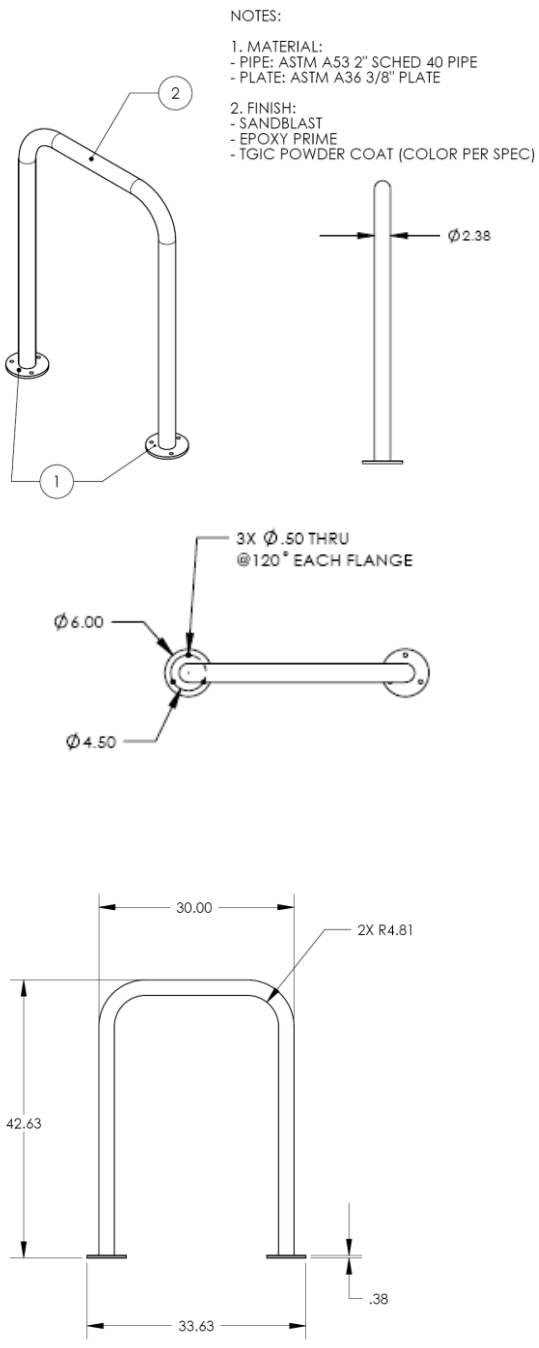
Design Example



Guide

Association of Bicycle and Pedestrian Professionals (APBP) Bicycle Parking Guidelines

Sample Design



1.8.3. Alternative Non-Standard Racks (Art Racks, etc.)

Design Summary

Alternate parking devices must meet the following criteria:

- Support the bicycle frame at two points, and not only by the wheel
- Must accept a variety of bicycle sizes and styles including various frame types and sizes, wheel sizes, and tire widths
- Must allow for the use of a cable as well as a U-shaped lock
- Allow for the bicycle frame and at least one wheel to locked to the rack
- Must be tall enough to be visible to pedestrians and the visually impaired, yet not monumental in scale compared to parked bikes
- Must be maintenance free or fabricated from materials which wear in an aesthetically pleasing manner
- Must have a simple design. Cannot use moving parts
- Must not require the user to lift the bicycle onto the parking device

Discussion

While the Inverted-U design is the accepted standard for bicycle parking in the public right-of-way, the City may allow other rack designs at its discretion.

Design Example



Guide

APBP Bicycle Parking Guidelines

Design Examples







1.8.4. Additional Discussion - Unacceptable Bicycle Racks

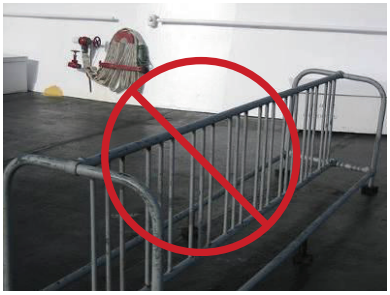
Inadequate bicycle parking facilities can discourage bicycling. The City should not use racks with the following characteristics:

- Support bicycles at only one point of contact
- Support bicycles by one wheel
- Allow bicycles to fall, which could bend the wheel and block the pedestrian right-of-way
- Has sharp edges that can be hazardous to pedestrians
- Suspends the bicycle in the air in any way

These photos are examples of unacceptable bicycle racks.













Additional Discussion - Rack Installation

The City will affix racks to City sidewalks or other concrete pad location using vandal-resistant hardware provided by the installer and approved by the Public Works Department (PWD).

The City will install or remove racks in locations designated by the PWD.

All installations shall conform to Americans with Disabilities Act (ADA) requirements.

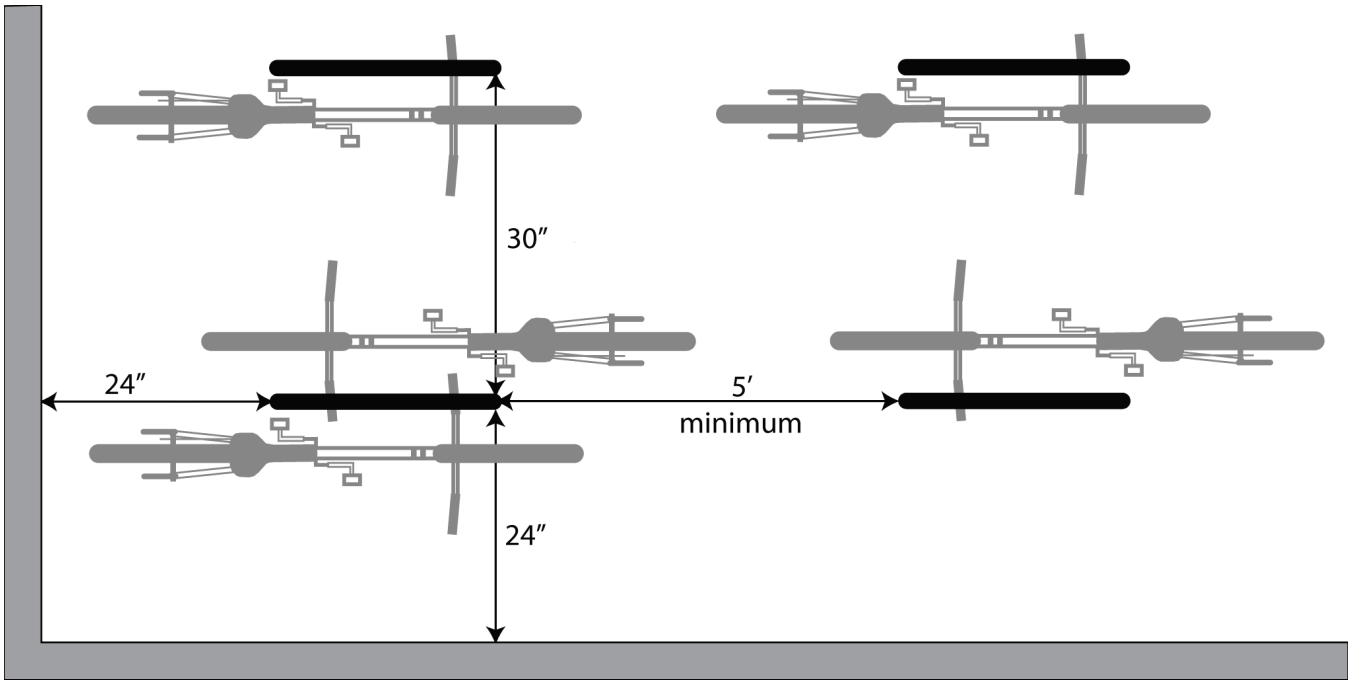
All bolt holes shall be clear from dust or debris. The anchoring bolts should pass vertically through the support plate into the bolt holes until the bolt head is firmly seated against the support plate.

Use washers to level the rack and support plate on uneven pavement surfaces. Fill with non-shrinking grout after mounting the bicycle rack to the concrete.

Do not place bicycle rack over any access box, pavement expansion or control joint. Bicycle rack shall be placed at least 3 inches away from any expansion and or control joints in the cement.

Requirements for Multiple Bicycle Parking Installation

- Place bicycle racks perpendicular or parallel to a building.
- Provide ample room between bicycle rack and structure, at least 24 inches from the wall.
- Separate racks placed side by side at least 30 inches from one another, measured from the center of the rack.
- Provide at least five feet total width in the bicycle parking aisle, which is generally sufficient room for a rider and a bicycle.



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1.9. Temporary Traffic Control (TTC)

Description	Facility Type	CA MUTCD CODE	Graphic
The City may use PEDESTRIAN / BICYCLE DETOUR (M4-9a) to establish a pedestrian/bicycle detour route when closing a pedestrian/ bicycle facility to through traffic. Standard: The Pedestrian/Bicycle Detour sign shall have an arrow pointing in the appropriate direction.	Bicycle Path Class I	M4-9a	
The City may use BICYCLE DETOUR (M4-9c) when establishing a pedestrian or bicycle detour route (not both) when closing a bicycle facility to through traffic.	Bicycle Lane Class II; or Bicycle Route Class III	M4-9c	
The City may use several standard signs [W21-5, W21-5a, W21-5b, C24 (CA), C30A (CA), C31A (CA)] to warn cyclists of changing roadway shoulder conditions.	Bicycle Route Class III or other Shared Roadway	W21-5a C24 (CA)	

1.9.1. General Bicycle Considerations in TTC Zones (from CA MUTCD Section 6D.101)

Support:

Consider the following factors when planning for cyclists in TTC zones on highways and streets:

- Provide a travel route that replicates the most desirable characteristics of a wide paved shoulder or bikeway through or around the traffic control zone.
- Provide signs directing cyclists through or around the zone and back to the bikeway if the traffic control zone interrupts the continuity of an existing bikeway system.
- Provide adequate roadway lane width to allow cyclists and motor vehicles to travel side by side through or around the zone unless there is a separate bicycle path through or around the traffic control zone.
- Do not lead cyclists into direct conflicts with mainline traffic, work site vehicles, or equipment moving through or around the traffic control zone.

1.9.2. Work Affecting Bicycle Facilities (from CA MUTCD Section 6G.05)

Support:

Road work and the associated TTC will frequently affect pedestrian or bicycle facilities, particularly in urban areas. It is essential to consider in TTC zones the needs of all road users, including pedestrians with disabilities.

In addition to specific provisions identified in CaMUTCD sections 6G.06, 6G.07, 6G.08, 6G.10, 6G.11, 6G.12, and 6G.13, there are several applicable provisions for all activity types identified in this section.

Guidance:

The City should modify typical applications where pedestrian or bicycle usage is high, giving particular attention to the provisions set forth in Chapters 6D and 6G, Section 6F.68, and other Sections of Part 6 related to accessibility and detectability provisions in TTC zones.

Do not expose cyclists and pedestrians to unprotected excavations, open utility access, overhanging equipment, or other such conditions.

Place a SHOULDER WORK sign in advance of the activity area when a highway shoulder is occupied, except for short duration and mobile operations. Place channelizing devices on a taper with a length that conforms to the requirements of a shoulder taper when performing work on a paved shoulder 8 or more feet wide.

1.9.3. Work Within the Traveled Way Streets (from CA MUTCD Section 6G.11)

Support:

The City must decide how to control vehicular traffic in urban TTC zones, such as determining the required number of lanes, whether to prohibit turns at intersections, and how to maintain access to business, industrial, and residential areas.

Standard:

Provide adequate access to the roadway or shared-use paths if the TTC zone affects cyclist movement.

Guidance:

Provide a signed alternate route if work closes a designated bicycle route. Cyclists should not be directed onto the path used by pedestrians.

1.10. Pedestrian Design Guides

Planning documents historically neglect the pedestrian environment or place pedestrian needs beneath those of motorists. This neglect yields a hierarchy in which car trips are more convenient and encouraged, and other transportation modes less so. This design guide attempts to re-prioritize the hierarchy to place the needs of pedestrians first.

Pedestrian design guides are one effective strategy for improving the overall urban and suburban environment for walking. The BPMP addresses other strategies, such as enforcing existing traffic laws and educating the public. The following guidance recommended for the City of Culver City primarily address issues of pedestrian safety. The guidance does not thoroughly address issues of urban design, design character, or other amenities that make streets and sidewalks attractive places to travel and spend time as a pedestrian. Because safety concerns clearly and significantly influence a person's decision to walk or use other modes of transportation, design guides for creating a safe pedestrian environment are important for all communities.

The quest to build more sophisticated transportation systems may overlook pedestrians as legitimate roadway users. Whether building new infrastructure or renovating existing facilities, cities should assume that people will walk, and plans should accordingly accommodate pedestrians. Drivers, transit users and cyclists are all pedestrians at the beginning and end of every trip. When people do not walk, it is often because there are factors preventing or discouraging them from doing so. The infrastructure may be insufficient, have serious gaps, or contain safety hazards.

The guidance included in this section is a supplement to the City of Culver City's currently adopted development policies, as well as State and Federal standards. The purpose of this chapter is to provide general design suggestions for pedestrian facilities that go above minimum standards. Implementation of guides shown herein requires Public Works Director / City Engineer approval.

1.10.1. State and Federal Guidelines

State and federal law regulates the design of many streetscape elements. Traffic control devices must follow the procedures set forth in the Caltrans Highway Design Manual, the Manual of Uniform Traffic Control Devices (MUTCD), while elements such as sidewalks and curb cuts must comply with guidelines implementing the Americans with Disabilities Act (ADA).

Manual of Uniform Traffic Control Devices (MUTCD)

The City of Culver City follows the procedures and policies set out in the CaMUTCD (state) and MUTCD (federal). Traffic control devices include traffic signals, traffic signs, and street markings. The manual covers placing, constructing, and maintaining devices. The CaMUTCD emphasizes uniformity in traffic control devices to protect the clarity of the message. A uniform device conforms to regulations for dimensions, color, wording, and graphics and minimizes confusion or misunderstanding on the part of the roadway user.

Americans with Disabilities Act (ADA)

Title II of the Americans with Disabilities Act (ADA), signed into law in 1990, is a civil rights act that prohibits public entities from discrimination on the basis of disability. Newly constructed and modified existing facilities must not have architectural barriers that restrict access or use by individuals with disabilities. Cities in California use two technical standards for accessible design: the Americans with Disability Act Accessibility Guidelines (ADAAG), adopted by the Department of Justice for places of public accommodation and commercial facilities covered by Title 3 of the ADA, and the California Title 24 State Accessibility Standards, State Architectural Regulations for Accommodation of the Physically Handicapped in Public Facilities.

Principles for Pedestrian Design

The following design principles represent a set of ideals, which should be incorporated, to some degree, into every pedestrian improvement. The order roughly corresponds to relative importance.

The pedestrian environment should be safe.

Sidewalks, walkways, and crossings should be free of hazards and minimize conflicts with external factors, such as vehicular traffic and protruding architectural elements.

The pedestrian network should be accessible to all.

Sidewalks, walkways, and crosswalks should ensure the mobility of all users by accommodating people's needs regardless of age or ability.

The pedestrian network should connect to places people want to go.

The pedestrian network should provide continuous direct routes and convenient connections between destinations, including homes, schools, shopping areas, public services, recreational opportunities and transit.

The pedestrian environment should be easy to use.

Sidewalks, walkways, and crossings should allow people to easily find the most direct route to a destination while experiencing minimal delay.

The pedestrian environment should provide good places.

Good design should enhance the look and feel of the pedestrian environment. The pedestrian environment includes open spaces such as plazas, courtyards, and squares, as well as the building facades that give shape to the space of the street. Amenities should promote a sense of place through the use of seating, street furniture, banners, art, plantings, shading, special paving treatment, historical elements, and cultural references,

The pedestrian environment should be multifunctional.

The pedestrian environment should encourage public activities. Cities should permit commercial activities such as dining, vending, and advertising when they do not interfere with safety and accessibility.

Pedestrian improvements should preserve or enhance the qualities of a place and the City.

Culver City's history must be preserved in the public space. Where applicable, pedestrian improvements should restore and accentuate historical elements of the public right-of-way. Good design will create a sense of time that underscores the history of Culver City.

Pedestrian improvements should be economical.

Pedestrian improvements should achieve the maximum benefit for their cost, by accounting for including initial cost and maintenance cost, as well as reduced reliance on expensive transportation modes. Where possible, improvements in the right-of-way should stimulate, reinforce, and connect with adjacent private improvements.

Sidewalk Corridor Guides

The width and zone guides presented in this sidewalk section apply to sidewalks adjacent to new development, redevelopment, remodeled buildings, and in areas implementing street reconstruction. Sufficient right of way must exist to implement the appropriate sidewalk width. If the right of way does not exist, the Public Works Director / City Engineer, or designer may approve modifications or exemptions.

1.10.2. Sidewalk Corridor Width – Urban Setting

Design Summary

Sidewalks in commercial corridors should be ten feet wide or eight feet wide if adjacent to public accessible walkway or plaza running parallel to the sidewalk.

Discussion

The proposed sidewalk guides apply to new development and depend on available street width, motor vehicle volumes, surrounding land use, and pedestrian activity. Standardizing sidewalk guidelines for different areas of the City, dependent on the above listed factors, ensures a minimum level of quality for all sidewalks.

The City of Culver City currently requires a minimum five-foot wide sidewalk. These dimensions conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), which call for minimum four-foot wide sidewalks for passage. Four foot sidewalks are not the ADAAG recommended sidewalk width.

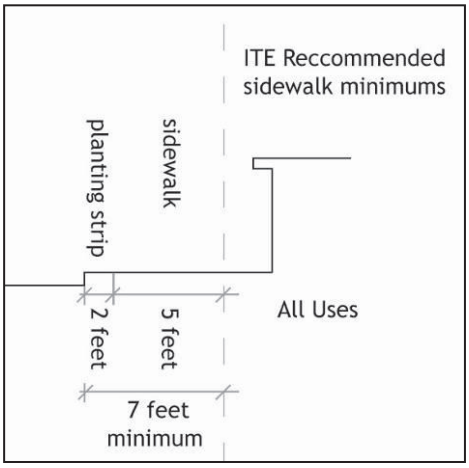
The discretionary review process should require dedicated space for sidewalks.

The Institute of Transportation Engineers (ITE) recommends planning all sidewalks to include a minimum width of five feet (60 inches) with a planting strip of two feet (24 inches) in both residential and commercial areas. Culver City has not adopted the ITE recommendation.

Guidance

ITE

ADAAG



ITE Recommended Sidewalk Widths

1.10.3. Sidewalk Zones

Design Summary

See width specifications below.

Discussion

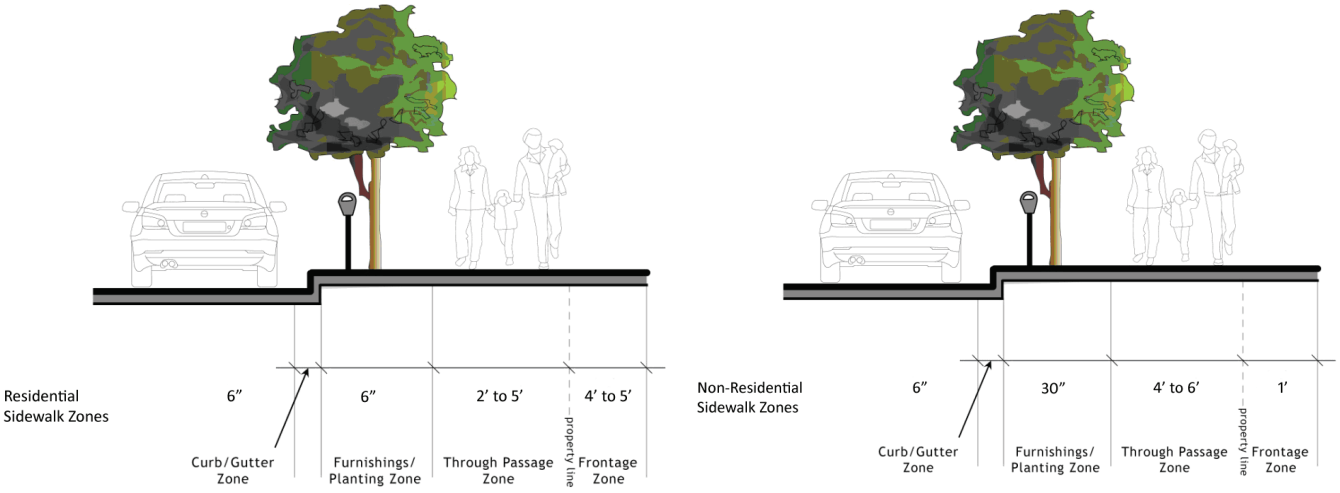
Sidewalks are the most important component of the City's pedestrian circulation network. Sidewalks provide pedestrian access to virtually every activity and provide critical connections between other modes of travel, including the automobile, public transit, and bicycles. The Sidewalk Corridor is lies within the public right-of-way, between the curb or roadway edge and the property line. The Sidewalk Corridor contains four distinct zones: the Curb Zone, the Furnishings Zone, the Pedestrian Travel Zone, and the Frontage Zone.

See following page for additional discussion:

Design Example



Preferred Design



1.10.4. Additional Discussion – Sidewalk Zones

Curb Zone:

Curbs prevent water in the street gutters from entering the pedestrian space, discourage vehicles from driving over the pedestrian area, and make it easy to sweep the streets. The curb helps to define the pedestrian environment within the streetscape, although other designs can also achieve this purpose. The curb is an important tactile element at corners for sight-impaired pedestrians using canes for wayfinding. Straight curbs rather than rolled curbs provide stronger pedestrian protection because they prevent cars from parking on or obstructing the sidewalk.

Furnishings Zone:

All streets require a utility zone to accommodate above ground public infrastructure, signage, and street trees. Locating this infrastructure in the furnishings zone prevents it from encroaching on the through passage zone, where it may cause accessibility issues. The furnishings zone also creates an important buffer between pedestrians and vehicle travel lanes by providing horizontal separation. Elements like utility poles, sign posts, and street trees improve pedestrian safety and comfort by separating the sidewalk from moving vehicles. Section **1.10.5** presents guides for furnishings zone widths.

Pedestrian Travel Zone:

Most residential areas in the City are low to medium density and therefore have low pedestrian volumes compared to more urban areas. This design guide recommends a four foot through passage zone for these conditions. Some commercial areas, school zones, and other public areas generate greater pedestrian volumes; the City should consider a wider through zone in these areas. Section **1.10.7** presents recommended standards for the through zone width for each of the predominant land uses in Culver City.

Frontage Zone:

The frontage zone lies between the pedestrian through zone and the adjacent property line. Pedestrians tend to avoid walking close to barriers at the property line, such as buildings, storefronts, walls or fences, in the same way that they avoid walking close to the roadway. The frontage zone should be at least 12 inches in most cases. Areas may eliminate the frontage zone if the sidewalk is adjacent to a wide open or landscaped space without fences. Section **1.10.8** presents guides for frontage zone widths.

1.10.5. Furnishings Zone

Discussion

The Furnishings Zone buffers pedestrians from the adjacent roadway, and accommodates elements such as street trees, signal poles, utility poles, street lights, controller boxes, hydrants, signs, parking meters, driveway aprons, grates, hatch covers, and street furniture. The Furnishing Zone is where people load/unload from parked cars.

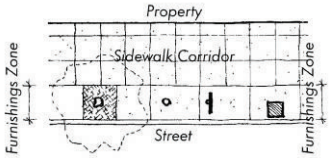
The Furnishings Zone should include street trees if there is adequate sidewalk width. Commercial areas may have paved zones with tree wells and planting pockets for trees, flowers, and shrubs. Residential zones generally do not pave these zones except for access walkways. Residential Furnishings Zones generally receive landscaping with a combination of street trees, shrubs, ground cover, lawn, or other treatments. Non-residential areas should provide a Furnishings Zone.

Separating pedestrians from travel lanes greatly increases comfort when using the Sidewalk Corridor. The Furnishings Zone buffering function is especially important on streets with heavy traffic, yet many of these streets have narrow existing Sidewalk Corridors. Cities should devote additional width to these zones on streets with traffic speeds over 35 mph (55 km/h).

See following page for additional discussion.

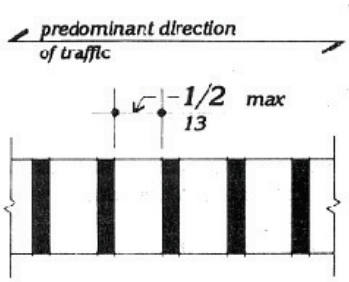


The Furnishings Zone buffers pedestrians from the roadway and is the place for elements such as street trees, poles, parking meters, and street furniture.



Typical alignment of the Furnishings Zone within the Sidewalk Corridor

Ventilation Grates



1.10.6. Additional Discussion – Furnishing Zones

Grates

All grates within the sidewalk shall be flush with the surrounding sidewalk surface and located outside the Pedestrian Travel Zone. Ventilation grates and tree well grates shall have openings no greater than 1/2 in (13 mm) in width.

Designers should use tree well grates in high pedestrian use areas.

Access Hole Covers

The Furnishings Zone should enclose access hole covers. Access hole covers must have a rough surface texture, with a slightly raised pattern. The surface should be slip-resistant even when wet. The cover should be flush with the surrounding sidewalk surface.

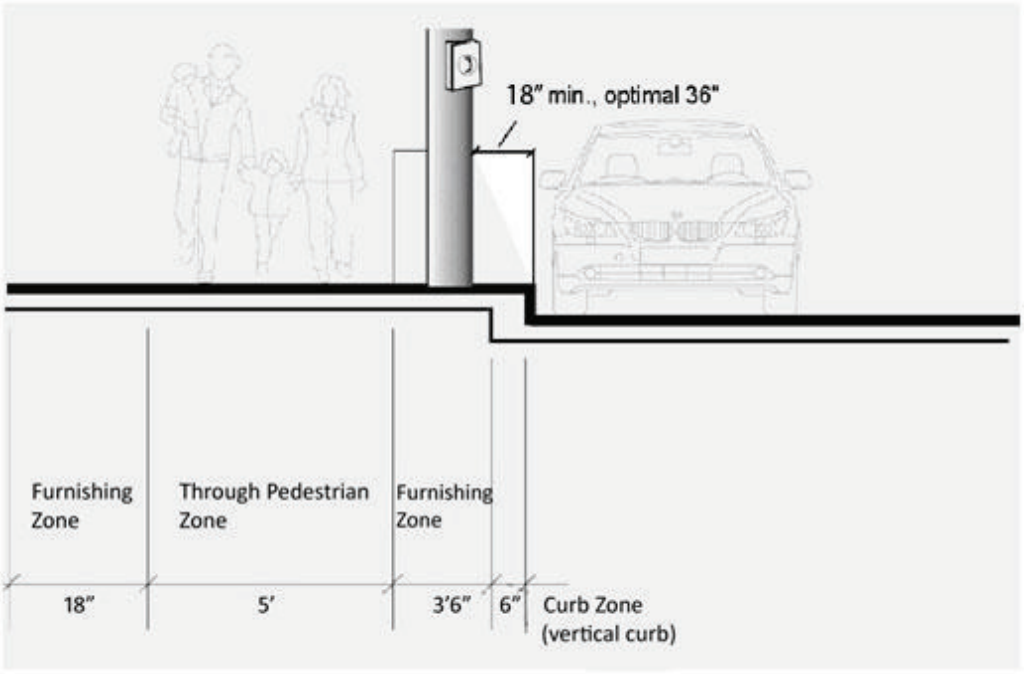
Street Furniture

Street furniture includes benches, mailboxes, trash and recycling receptacles, bike racks, newspaper boxes, drinking fountains, information boards, kiosks, parking meters, artwork, public phones, signs, bus shelters, and other items used by pedestrians. These features humanize the street scale and encourage pedestrian activity. Street furniture should sit in the furnishings zone to maintain through passage zones for pedestrians and to buffer the sidewalk from the street. Bus shelters are an exception to this principle, as they must fit site conditions and meet ADA accessibility requirements. Bus bulb-outs may provide additional space in areas with crowded sidewalks and/or high speed/high volume street. A bus shelter placed at the back of the sidewalk area would similarly provide adequate room to meet ADA requirements. (See the explanation of bulb-outs on page 23.) Bus shelters should have clear bus schedules displays and city maps for way-finding. Pedestrian facilities around all street furniture should meet accessibility requirements and pedestrian walk clearance zones.

Utility Poles and Structures

The City's underground and overhead service utility network greatly impacts sidewalks. Utility poles, traffic signals/equipment, and fire hydrants should sit outside the pedestrian travel zone or the furniture zone. Electrical boxes should sit on utility and traffic signal poles prevent creating unexpected pedestrian hazards. Utility vaults and access boxes should sit outside the pedestrian travel zone, flush with the sidewalk, in conformance with ADA requirements. Their construction should use non-slip materials.

Non-Residential Utility Poles and Structure Placement*



**As determined by the Public Works Director*

1.10.7. Pedestrian Travel Zone

Discussion

The Pedestrian Travel Zone is intended for pedestrian travel. If possible, this zone should be entirely free from permanent and temporary objects.

For sidewalk infill projects in areas with some existing sidewalks, the new sidewalk should match the existing width or meet the recommended width, whichever is larger.

Driveway aprons should not intrude into the Pedestrian Travel Zone.

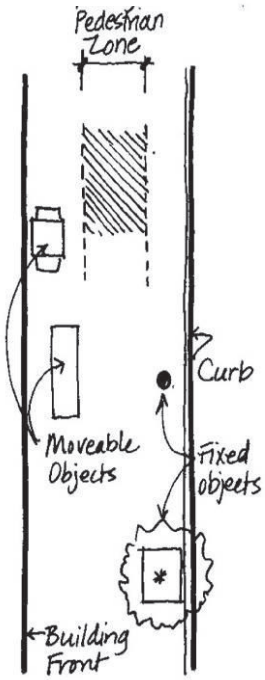
ADA Accessibility Guidelines specify that the minimum clearance required for through passage is 36 inches. The ADAAG permits a minimum clearance of 32 inches, but only up to a length of 24 inches.

Surfaces

Walking surfaces shall be firm and stable, resistant to slipping, and allow for easy passage by people using canes, wheelchairs, or other devices to assist mobility.

Sidewalks are generally constructed of Portland cement concrete. The City may also consider alternative pavement and/or treatments, at the discretion of the Public Works Director / City Engineer, particularly in the Furnishings Zone or around mature trees where sidewalk lifting is a problem.

The surface of concrete sidewalks should match historic patterns within a neighborhood or district where appropriate.



Typical alignment of the Pedestrian Travel Zone within the Sidewalk Corridor.



1.10.8. Frontage Zone

Discussion

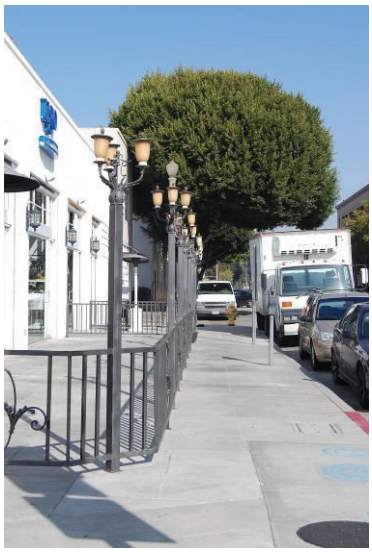
The Frontage Zone is the area between the Pedestrian Travel Zone and the property line. This zone allows pedestrians a comfortable "shy away" distance from the building fronts, in areas where buildings are at the lot line, or from elements such as fences and hedges on private property.

Where no Furnishings Zone exists, elements such as bus shelters and benches, telephone kiosks, signal and street lighting poles and controller boxes, traffic and parking signs, and utility poles, may occupy the Frontage Zone. In some cases, easements or additional right-of-way may be required to allow for these items. Residential and mixed-use buildings built to the right-of-way line should not site these elements in the Frontage Zone, as they could block access to an existing or future building.

Private temporary uses such as sidewalk cafes (where allowed by Code) may occupy the Frontage Zone, so long as it maintains a Pedestrian Travel Zone.

Encroachments

Fences and walls, when permitted, should be at least 1 ft (300 mm) behind the back of the sidewalk (or the future sidewalk, if none exists). Encroachments into the right-of-way are not permitted where the existing sidewalk corridor is less than the recommended width except as allowed through an encroachment permit issued by the Public Works Director / City Engineer.



Temporary uses such as sidewalk cafes may occupy the Frontage Zone, providing the Pedestrian Travel Zone remains clear.



Elements such as standpipe systems may project into the Frontage Zone. Take care to assure compliance with the ADA.

1.10.9. Sidewalk Lighting

Discussion

Improving street lighting makes locations appear more inviting and will encourage people to use pedestrian areas at night. Increasing the number of people using a particular area reinforces general safety by eliminating opportunities for crimes to occur.

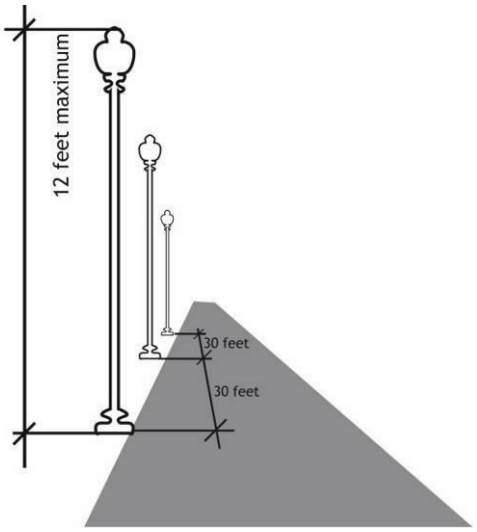
Street lighting serves a variety of purposes. Some designers use lamp styles to provide a sense of neighborhood continuity or preserve the atmosphere of an historic district. Others use lights to improve visibility for motorists at a particular intersection.

This section specifically addresses pedestrian scale lighting, as typical roadway right-of-way lighting designed for motorists provides little value to pedestrians. Pedestrians prefer frequent lampposts at lower height and illumination over fewer lampposts at taller height and that are brighter.

The City should implement pedestrian scale lighting in areas of high pedestrian activity and where feasible based on available right of way, utilities and cost. Pedestrian scale lighting is a significant capital improvement, and operating and maintenance expense. The City should install pedestrian scale lighting only where it will have maximum benefit. Culver City areas that may benefit from increased pedestrian lighting are areas active during the evening, such as entertainment districts that include theatres, restaurants, bars, and parks with evening programs. Pedestrian scale lighting may also benefit the pedestrian districts where they do not exist already.

The City can install pedestrian scale lighting between existing lampposts to obtain the frequencies given in the adjacent diagram. They should locate at least ten feet from the full growth canopy of adjacent trees.

Pedestrian District Lighting Placement



1.10.10. Bus Stops

Discussion

Bus stops should provide safe access to transit passengers. Culver City bus stops sit in red-curb zones that allow buses to park parallel to the sidewalk. The bus stop zone needs to allow the bus to pull into the bus stop zone adjacent to the sidewalk and deploy the wheelchair lift.

The bus shelter should provide an adequate bus stop pad to allow wheelchair users to access the shelter and board the bus. ADA Guidelines define the space necessary to facilitate lift operations for passengers in wheelchairs. Lift operations require adequate space for individuals with wheelchairs to wait while deploying the automatic lift or ramp. In most instances the ramp is between 2.5 and 3 feet long and wide.

The ADA minimum requirements for the wheelchair waiting zone at the bus shelter are 60 inches wide (as measured along the curb) by 96 inches deep (as measured from the curb). Outside of the wheelchair waiting zone, the minimum passing space may be three feet.





1.10.11. Crosswalks

Definition

The California Vehicle Code Section 275 defines a crosswalk as either:

(a) That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street.

(b) Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.

Notwithstanding the foregoing provisions of this section, the City shall not install a crosswalk where local authorities placed signs indicating no crossing.

A crosswalk is effectively a legal extension of the sidewalk across the roadway at intersections. Crosswalks are present at all intersections, whether marked or unmarked, unless the local jurisdiction specifically prohibits pedestrian crossing. Crosswalks exist at mid-block locations only when marked.

According to the CaMUTCD, crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

As noted in the 2005 FHWA report "Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations," the CaMUTCD does not provide specific guidance relative to the site condition (e.g., traffic volume, pedestrian volume, number of lanes, presence or type of median) whether to use marked crosswalks at uncontrolled locations. Nor does the MUTCD give specific guidance on whether to apply crosswalk enhancement features such as high-visibility striping, advanced warning signage, or flashing beacons. While the CaMUTCD allows the use of these devices, it defers decisions to the judgment of local traffic engineers on specific applicability at a given location. This section summarizes the various types of crosswalk-related markings, signage and enhancement treatments available for use in Culver City, discusses policies and procedures already in use, and provides more information to assist City traffic engineers with future implementation.

1.10.12. Crosswalk Markings

Discussion

Marked crosswalks alert drivers to expect crossing pedestrians and direct pedestrians to desirable crossing locations. Culver City utilizes two different marking styles for pedestrian crosswalks: the standard "transverse" style, consisting of two parallel lines; and the "ladder" style consisting of the two parallel lines with perpendicular ladder bars striped across the width of the crosswalk.

Crosswalks should extend across the full width of intersections, or to the edge of the intersecting crosswalk, to encourage pedestrians to cross perpendicular to the flow of traffic.

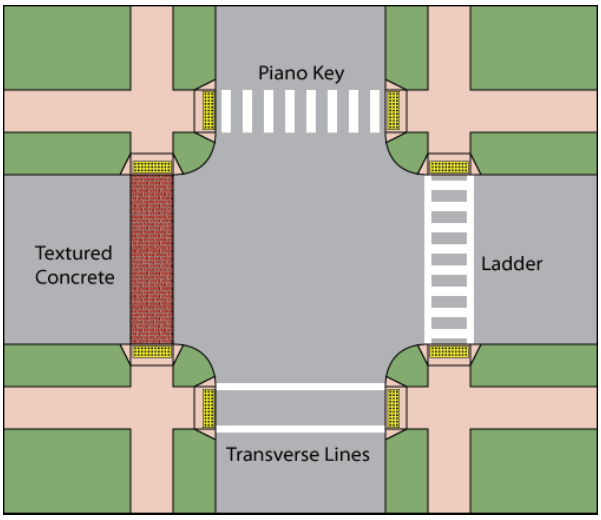
The City can use advanced "Stop Bars" on intersections with high pedestrian activity, at the discretion of the Public Works Department.

Crosswalk markings can be applied with paint or thermoplastic. Crosswalk markings are sufficient treatments at controlled crosswalk locations with STOP signs or traffic signals, given the presence of a traffic control device.

Deciding whether to install standard or ladder crosswalk markings depends on a variety of factors, such as the number of pedestrians crossing, traffic speeds/volumes, number of lanes to cross, presence of nearby schools or senior centers, and history of collisions. In general, standard transverse markings are appropriate at controlled intersections, minor uncontrolled intersections, and other crossing locations with low traffic volumes/speeds, short crossing distance, and good visibility. High visibility ladder markings are more appropriate on major streets with high pedestrian volumes, heavy traffic volumes and speeds, and more than one lane in each direction.

Design Pavement Treatments or Textured Concrete may provide added visibility to a crosswalk. Cities often use textured concrete treatments to reflect cultural or historical traits of the city.

Common Crossing Treatments



Textured Concrete Treatment, Downtown Los Angeles

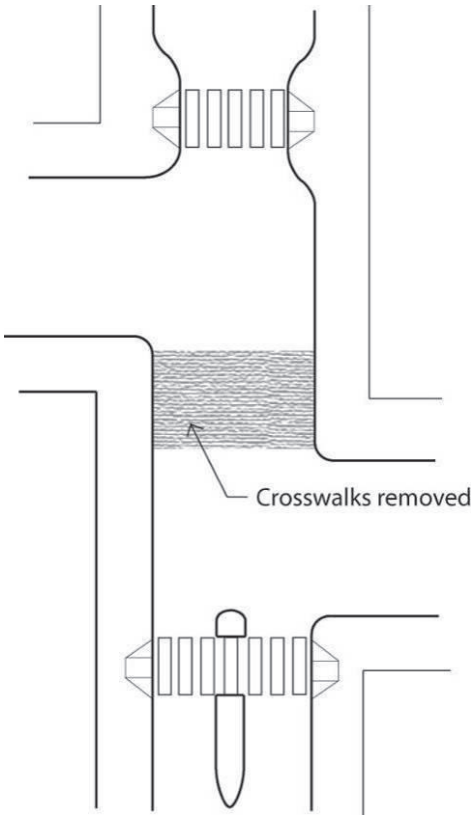


(Photo – Integrated Paving Concepts)

1.10.13. Additional Discussion – Crosswalk Markings

Crosswalk Striping at Major Intersections

The City should minimally stripe crosswalks with transverse lines at all controlled intersection legs. The City should use high-visibility-style crosswalks at major intersections, where pedestrian activity is high, where significant pedestrian-vehicle conflicts may occur, or where crosswalk visibility is a concern.



Source: Portland Pedestrian Design Guide

Offset Intersection

Crosswalk Striping at "T" Intersections or Offset Intersections of Major Arterials and Residential Streets

Culver City has many locations where major arterials intersect one or more minor residential streets on one side, forming a "T" shaped intersection or a series of offset intersections. At locations with STOP or traffic signal controls at each intersection leg, marked crosswalks should follow the guides for major intersections above. The City should use engineering judgment to decide whether to mark a crosswalk at intersections.

The decision to mark a crosswalk should relate to the presence of pedestrian-generating activity centers along a particular roadway. Some locations may need frequently marked pedestrian crosswalks, while others may only infrequently need marked crosswalks.

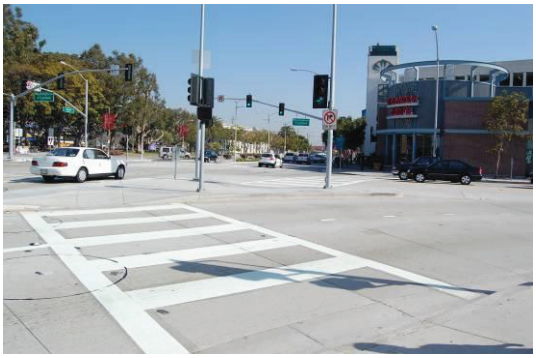
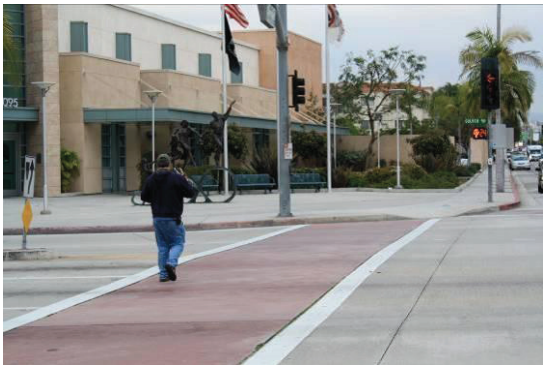
Crosswalk Striping at Minor Intersections

Using of standard transverse lines to mark the crosswalk is generally appropriate at minor intersections. Crosswalks should align with curb ramps such that wheelchair users can stay within the crosswalk to access the sidewalk on either side of the roadway. Marking crosswalks should occur at uncontrolled locations only following an appropriate engineering study.

Crosswalk Markings in School Zones

All crosswalks within the designated school zone must have yellow stripes rather than white. A school zone can extend up to 500' feet' in advance of the school boundary. Special signage should locate near school crossings in accordance with the guidelines provided in Chapter 7 of the CaMUTCD. This document provides guidance for enhancing crossings with school-aged children present.

Crosswalk Markings Used in Culver City

Style	Sample
Standard – Two solid white lines, 12 to 24 inches wide, spaced at least 6 feet apart (refer to CA MUTCD Sec. 3B.17). Also called "transverse." Example: Sepulveda Blvd and Washington Blvd	
Ladder – Adds cross bar "rungs" to the standard crosswalk marking described above. Width of ladder lines should be 1 foot, with minimum spacing of ladder lines 1.5 feet. Example: Culver Blvd and Washington Blvd	
Standard with Colored Concrete – Two solid white lines 12 inches wide and at least 6 feet apart. Concrete pad given color to provide heightened daytime visibility. Example: Culver Blvd and Overland Ave	
School Crosswalks – Crosswalks within the designated school zone must be yellow, per CaMUTCD. Can be marked either standard or ladder. The school zone can extend up to 500 feet from the school boundary. Example: College Ave and Matteson Ave	

1.10.14. Crosswalk Warning Signage and Pavement Markings

Discussion

The CaMUTCD provides guidance on installing supplemental warning signage and pavement stencils at and in advance of uncontrolled crosswalks. These signs are for uncontrolled locations, because locations with STOP signs, YIELD signs, or traffic signals already have traffic controls that regulate the crosswalk. Signs and stencils to supplement crosswalks are not necessary in these locations. The CaMUTCD warns against installing such signs in locations with unexpected or non-apparent crossing activity.

The Pedestrian Crossing sign plate (W11-2) sits in advance of the unmarked crosswalk. The Pedestrian Crossing sign plate and a downward arrow sign indicate the exact crosswalk location. Agencies may install white "PED XING" pavement markings in each approach lane to a marked crosswalk, except at intersections controlled by traffic signals or STOP or YIELD signs.

The CaMUTCD requires special signage at and in advance of all school crosswalks. Unlike the crosswalk warning signage for a normal (white) crosswalk, school crosswalk signage is mandatory. The CaMUTCD requires the School Crosswalk Warning Assembly B at each yellow school crosswalk. It consists of a School Warning plate (S1-1) plus downward arrow. Agencies must use a School Advance Warning Assembly D, consisting of a school crossing plate plus "AHEAD" in advance of each yellow school crossing. Agencies may use yellow "SLOW SCHOOL XING" markings at least 100 feet in advance of uncontrolled school crosswalks.

High Visibility Signage

One way of increasing the visibility of pedestrian-related signage is by using a Fluorescent Yellow-Green (FYG) background. The CaMUTCD approves using FYG signage for pedestrian, bicycle and school signs. The City should use a systematic approach for corridor or school-area signing to avoid mixing standard yellow and fluorescent yellow-green.







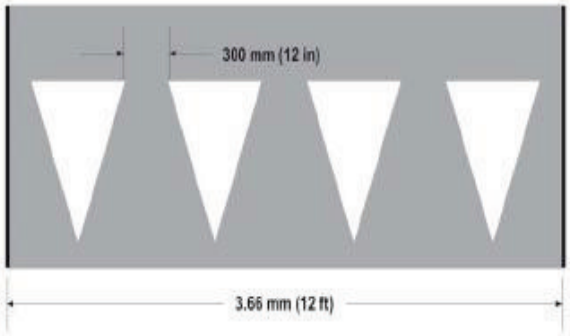
1.10.15. Stop and Yield Lines

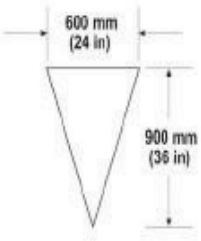
Discussion

Stop Lines

CaMUTCD Sec. 3B.16 guides the use of Stop Lines (commonly referred to as limit lines or stop bars) and Yield Lines. Stop lines are solid white lines 12 inches to 24 inches wide that indicate where to stop at STOP-controlled or signalized intersections. Crosswalks can function as the stop line. Therefore, agencies should install stop lines only at controlled locations where no marked crosswalk exists. The MUTCD permits jurisdictions to install a stop line in advance of a marked crosswalk. Installing stop lines in advance of crosswalks discourages vehicle encroachment into the marked crosswalk, particularly at right-turn-on-red situations where vehicles creep forward to gain visibility. One solution is to stripe a stop line on the left lanes farther back than the right lanes, which allows better left-side visibility for right-turning vehicles. This also allows more clearance for vehicles turning from perpendicular streets. A supplement to Stop Lines is a "STOP HERE ON RED" sign with a down arrow indicating the stop line as the proper stopping location.

Yield Lines





Yield lines (also called yield teeth or shark's teeth) indicate where traffic should yield at uncontrolled locations. These lines comprise of white triangles three feet high by two feet wide, spaced one foot apart. California requires vehicles to "YIELD" to pedestrians in uncontrolled crosswalks; yield lines indicate where vehicles should stop in advance of an uncontrolled crossing. These markings are most effective in mid-block locations, where there is no intersection to give a motorist cues on where to wait for a crossing pedestrian. The CaMUTCD recommends placing yield lines 20 to 50 feet ahead of uncontrolled mid-block intersections. Yield lines can counter risks for a "multiple-threat" collision on multi-lane roadways, which is where a car in one lane stops and screens the pedestrian from the view of the adjacent lane. Installing yield lines 40-50 feet back (two car lengths) gives both pedestrians and motorists a better view during the crossing. "YIELD HERE FOR PEDESTRIANS" signs with a down arrow can indicate where vehicles should yield in advance of the crosswalk.

Culver City has Stop Lines or Yield Lines at several locations with marked crosswalks. The City may consider installing stop lines at least four feet back from the crosswalk at locations with a history of vehicle encroaching into the crosswalk, or where vehicles fail to stop for pedestrians at right-turn-on-red situations.

1.10.16. Pedestrian Warning Signage for Signalized Intersections

Discussion

Crosswalk warning signs are not permissible at crosswalks controlled by a traffic signal, as the traffic control serves to regulate vehicles at the intersection. Installing stop lines as described above is one way of reducing vehicles from encroaching into the pedestrian crosswalk at signalized intersections, particularly intersections that permit right turn on red. Another way to remind turning drivers to yield to pedestrians is by installing a "TURNING TRAFFIC MUST YIELD TO PEDESTRIANS" (R10-15) sign.



1.10.17. In-Street Yield to Pedestrian Signs

Discussion

In-street Yield to Pedestrian Signs are flexible plastic signs installed in the median to enhance a crosswalk at uncontrolled crossing locations. These signs communicate variations of the basic message 'State Law: Yield to Pedestrians'. A "SCHOOL" plate can supplement these signs when at school crosswalks. School staffs sometimes install these signs on a portable base and bring them out when children are out in the morning and afternoon. This may reduce chances that the sign will become less visible to motorists by being left out continuously. Maintenance can be an issue for permanently installed signs, as the signs may be run over by vehicles and need occasional replacement. Installing the signs in a raised median can help extend their lifetime.



1.10.18. Special Crosswalk Pavement Treatments

Discussion

For aesthetic reasons, crosswalks are sometimes constructed with distinctive paving materials such as colored pavement or special decorative pavers meant to look like brick. Brick should be avoided for use in crosswalks, as it tends to wear down quickly, becoming uneven and slippery causing difficulties for pedestrians, especially persons with disabilities. Any use of unique materials or colored pavement should use concrete pavers or asphalt, and textures should maintain a smooth travel surface and good traction. It is important to note that these decorative pavement treatments frequently do not enhance the visibility of the crosswalk location, and in many cases make the crossing more difficult for persons with disabilities to navigate, and make the crosswalk less visible to motorists at night. Regardless of any colored or unique pavement treatment used, marked crosswalk locations should always be marked with parallel transverse lines at a minimum.



1.10.19. Pedestrian Signals

Discussion

Traffic control signals minimize conflicts between motorists and pedestrians by giving clear direction about the proper use of the right-of-way. Section 4E of the CaMUTCD outlines the standards for the use and design of pedestrian signals, including the warrants for locations where pedestrian signals may be provided. All new pedestrian signal installations shall consist of pedestrian signal head with international symbols, rather than textual "walk" and "don't walk" messages. Engineering judgment should be used in determining the specifics of pedestrian signal design at different crossing locations.





Engineering Treatments for Crosswalks

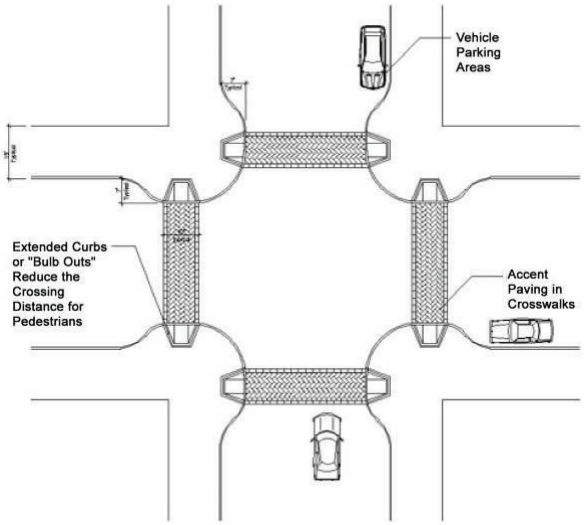
1.10.20. Curb Extensions

Discussion

Curb extensions, also called "bulb-outs" to describe their shape, are engineering improvements that reduce pedestrian crossing distance and increase visibility. Curb extensions typically sit at corners and extend out to align with the edge of the parking lane. In addition to shortening the crosswalk distance, curb extensions serve to increase pedestrian visibility by allowing pedestrians to safely step out to the edge of the parking lane to see into the street; this also makes them more visible to oncoming drivers. At corners, curb extensions serve to reduce the turning radius, and provide space for perpendicularly-aligned curb ramps. Bulb-outs can provide additional space for passenger queuing and loading at bus stops.

Despite their advantages, curb extensions can require major re-engineering of the street and are not appropriate for all situations. Installing curb extensions can require costly modifications and increased maintenance where there are existing storm drain catch basins. Curb extensions may not be possible in some locations due to existing driveways or bus pull-out areas. Curb extensions designs need to avoid conflict with bicycle facilities and should never extend into a bicycle lane. Bulb-outs impede traffic and should only be installed when based on engineering judgment.

Given their relatively high cost and challenges of implementation, curb extensions may not be suitable for widespread implementation. The City must evaluate each potential curb extension location on a case-by-case basis, taking into account factors such as crossing volumes, parking lane widths, drainage, driveways, effects on large vehicle movement, and bus stops.



1.10.21. Median Refuge Islands

Design Summary

The City should consider installing pedestrian refuge islands at intersections where a pedestrian must cross a street with four or more lanes, with traffic volumes higher than 7,500 vehicles per day (VPD), and traffic speeds greater than 35 mph.

At street crossing locations with vehicle speeds higher than 35 mph and traffic volumes more than 15,000 VPD, the City should offset "corral-style" pedestrian refuge islands so that pedestrians must face opposing traffic before crossing the second half of the street.

Refuge islands should be a minimum of four feet wide by eight feet long. These dimensions are an absolute minimum and should not be used at multi-use trail crossings or other locations anticipating bicycle traffic.

Pedestrian refuge islands should be well illuminated.

Islands should contain vertical elements like trees, landscape features, bollards, or sign posts.

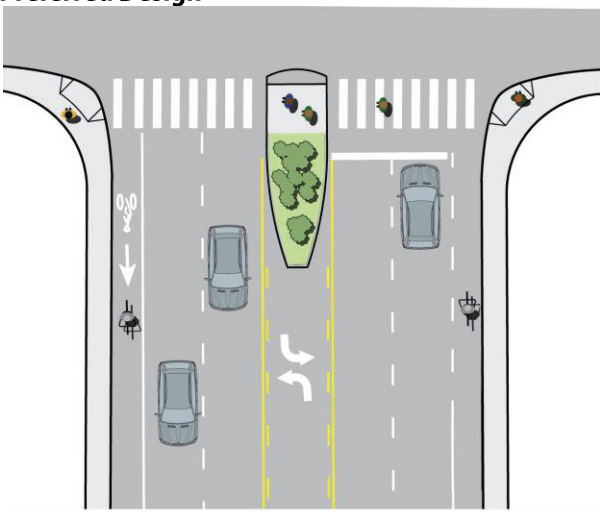
Pedestrian refuge islands must be ADA compliant; waiting areas should be at-grade with the roadway where it is not possible to include ramps and waiting pads.

Discussion

Pedestrian refuges in wide or busy streets improve safety for pedestrians and vehicles. They are areas within an intersection or between lanes of traffic where pedestrians may safely wait until vehicular traffic clears, allowing them to cross the street. These islands are particularly helpful for seniors, the disabled, and children unable to cross the street during the available signal time. Islands can significantly reduce delay when crossing un-signalized intersections since the pedestrian need only watch for gaps in one direction at a time.

Installing an island nose can help to provide additional protection for pedestrians at intersections. Island noses can reduce vehicles encroaching into the refuge area when making left turns. However, island noses may not be feasible because they restrict turning movement from side streets. Neither the MUTCD nor the ADA Access Board Guidelines have any requirement for installing island noses at intersection refuge islands. The City of Culver City should consider island nose installation on a case-by-case basis.

Preferred Design



Pedestrian refuge island at an intersection

*The City may consider a median refuge if it does not preclude existing or future bike lanes, or if City selects the island over placing bike lanes.

1.10.22. Median Refuge Islands - Guidance

Guidance

Intersections with high vehicular traffic volumes and pedestrian traffic.

Wide roadways where a two legged crossing will increase pedestrian ability to cross roadways, taking advantage of traffic gaps without modifying adjacent intersection signal timing.



1.10.23. Safety Barrels and Bollards

Discussion

Safety barrels and bollards can be effective in preventing vehicles from entering the pedestrian right-of-way. They are also an inexpensive way to test more permanent intersection improvements such as curb extensions. The placement of these vertical elements must ensure that they do not block the travel path of pedestrians, particularly those who are sight or mobility impaired. The creative use of bollards to create combination curb bulbs/bicycle parking areas can be effective in improving pedestrian safety while enhancing the aesthetic quality of an intersection and providing bicycle parking.

1.10.24. Multi-use Trail Intersections

Discussion

Multi-use trails provide pedestrian and bicycle travel ways that are separated from automobile traffic. Trail crossings must be safe for pedestrians and cyclists alike, and should also provide convenient connections to the City's street network. In general, trail crossings should be treated just like other intersection types, oriented at 90 degree angles whenever possible ensuring safety for all trail and road users. In addition to typical intersection lighting, signage, and traffic control features, trail crossings should include design features that warn both trail and roadway users of the crossing. Restricting parking near trail crossings, as at typical intersections, enhances sight distance.

1.11. Traffic Signal Enhancements

This section discusses specific pedestrian enhancements for use at signalized intersection locations.

1.11.1. Pedestrian Signals

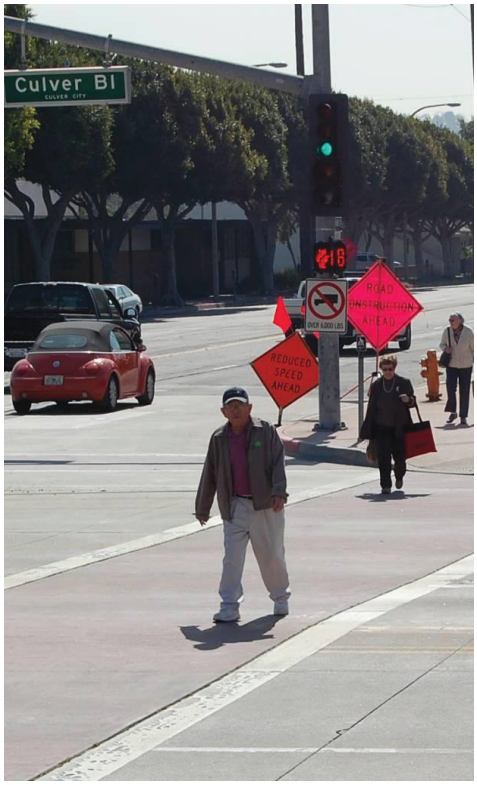
Discussion

Countdown pedestrian signals provide information on the time remaining in the pedestrian interval, which can assist pedestrians in crossing safely. The CaMUTCD now includes guidance on using these devices.

Signal Timing

Traffic signal timing can affect the ability of slower-moving pedestrians to safely cross the street. Agencies calculate the length of the pedestrian clearance phase by calculating a clearance interval, which is the time it takes a person to walk from the curb on one side to the center of the farthest travel lane on the other side. The CaMUTCD recommends a standard walking speed for four feet per second to calculate pedestrian clearance intervals, which is what Culver City uses.

However, the City should consider using a lower walking speed for calculating the pedestrian clearance time where there are populations of slow-walking pedestrians. The MUTCD recommends a walking speed of 2.8 feet per second for seniors or persons with disabilities. The City of Culver City should consider utilizing a walking speed of 2.8 ft/sec to allow for longer crossing times where signalized crossings are near senior centers, senior housing, elementary schools, or centers generating significant volume of pedestrians with disabilities. This recommendation may also apply to locations adjacent to elementary schools, as young children walk more slowly than adults.



1.11.2. Signal Activation

Design Summary

There are several simple design considerations that greatly enhance the safety and comfort of pedestrians at signalized intersections:

Areas with high pedestrian use (over 100 persons per hour) may incorporate a pedestrian phase into the signal sequence instead of using an on-demand signal phase.

Place pedestrian push-buttons in easily-reached, ADA compliant locations facing the sidewalk and clearly inline with the direction of travel. This will improve operations, as many pedestrians push all buttons to ensure that they hit the right one.

Adjust the signal timing to accommodate the average walking speeds of anticipated intersection users (longer crossing times for intersections near schools and community centers, etc.), or to limit pedestrian waiting time.

Discussion

Fully-actuated signals are highly responsive to local traffic variations because they detect vehicles and pedestrians on arrival. Fully-actuated signals require pedestrians to push the button to actuate the WALK phase.

Special pedestrian phases can also provide more crossing time for pedestrians at certain intersections. These include:

- Extended phase – At intersections with an extended phase, pedestrians who push the pedestrian crossing button get more time to cross the street than is provided during the normal signal phase.
- Leading Pedestrian Interval (LPI) – At intersections where there are conflicts between turning vehicles and pedestrians, pedestrians receive a "walk" designation a few seconds before the associated green phase for the intersection begins.



1.11.3. Pedestrian Pushbutton Detectors

Discussion

Pedestrian pushbutton detectors allow pedestrian signals to become actuated. As required by the CaMUTCD, pedestrian pushbutton detectors must have signs explaining their use. Pedestrian pushbutton detectors should be easily accessible for those in wheelchairs and for the sight-impaired, located approximately 3.5 ft. off the ground on a level surface. Pedestrian pushbuttons should not be used in locations where the pedestrian phase is set on a fixed cycle and cannot be actuated. One exception is using pushbuttons to activate audible pedestrian signals at non-actuated locations.

Accessible Pedestrian Signals – Verbal/Vibrotactile Tone

Verbal messages shall provide a clear message that the walk interval is in effect, as well as to which crossing it applies, when used to communicate the pedestrian interval.

The verbal message provided regularly during the walk interval shall be the term "walk sign," which may be followed by the name of the crossing street.

A verbal message is not required at times when the walk interval is not timing, but, if provided: 1) It shall be the term "wait" and: 2) It need not be repeated for the entire time that the walk interval is not timing.

Accessible pedestrian signals that provide verbal messages may provide similar messages in languages other than English, if needed, except for the terms "walk sign" and "wait." A vibrotactile pedestrian device communicates information by touch about pedestrian timing through a vibrating surface.

Vibrotactile pedestrian devices, where used, shall indicate that the walk interval is in effect, and for which direction it applies, through a vibrating directional arrow or some other means.



1.11.4. Curb Ramps

Discussion

According to ADA regulations, all streets with sidewalks and curbs or other barriers must have curb ramps at intersections (U.S. Access Board 1999, p. 58). The City of Culver City requires curb ramps at all street intersections. New curb ramps must comply with the requirements of the State of California Code of Regulations Title 24 and the Americans with Disabilities Act Accessibility Guidelines.

Curb ramps should direct pedestrians to the opposite corner and provide a direct connection between the sidewalk through the Pedestrian Travel Zone and the crosswalk. Curb ramps should allow wheelchair users to transition from the sidewalk to the crosswalk without having to enter travel lanes.

Curb ramps are necessary for people who use wheelchairs to access sidewalks and crosswalks. They help people with other mobility impairments to transition easily between sidewalks and crosswalks. Curb ramps also help people with strollers or rolling carts.

Curb ramps consist of the following basic components:

Landing

The level area at the top of a curb ramp facing the ramp path. Landings allow wheelchairs to enter and exit a curb ramp, as well as travel along with sidewalk without tipping or tilting.

Approach

The portion of the sidewalk on either side of the landing. Approaches provide space for wheelchairs to prepare to enter landings.

Flare

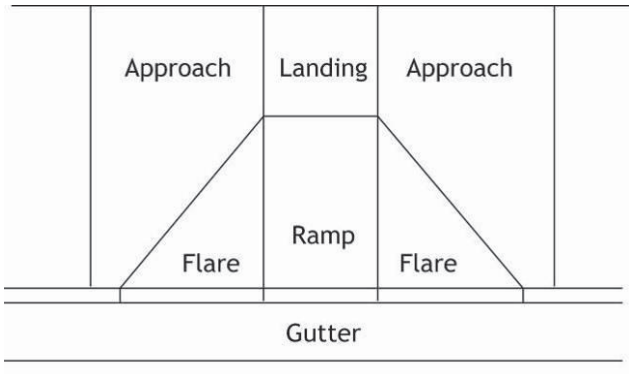
The sloped transition between the curb and sidewalk. Flares provide a sloped transition between the sidewalk and curb ramp to help to prevent pedestrians from tripping over an abrupt change in level.

Ramp

The sloped transition between the sidewalk and street where the grade is constant and cross slope at a minimum. Ramps are the main pathway between the sidewalk and street.

Gutter

The trough that runs between the curb or curb ramp and the street, designed to serve as a conduit for storm water flow or other drainage.



Curb Ramp Components

1.11.5. City Curb Ramp Guides

Design Summary

ADA requires installation of curb ramps in new sidewalks, as well as retrofitting of existing sidewalks. The section below describes the three most common curb ramp designs, perpendicular, parallel, and diagonal, and their respective applications. This section also addresses other curb ramp types, including built-up ramps and depressed corners.

Discussion

Perpendicular Curb Ramps

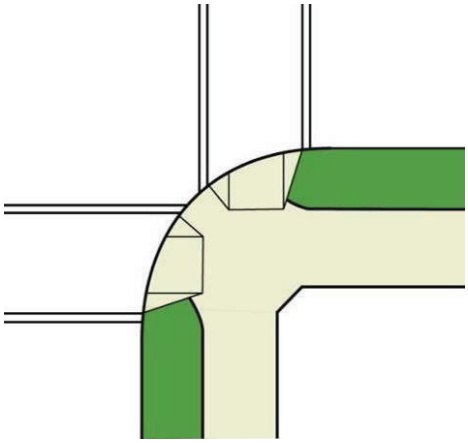
Perpendicular curb ramps allow for a convenient, direct path of travel with a 90-degree angle to the curb. Perpendicular curb ramps allow users to enter the street traveling perpendicular to vehicular traffic. Perpendicular curb ramps maximize access for pedestrians at intersections. They reduce the overall distance required to cross the street when compared with diagonal ramps. However, perpendicular curb ramps require more space than single diagonal ramps.

The City should not install perpendicular curb ramps without level landings because they are difficult for wheelchairs to negotiate. Where sidewalks are narrow, there may not be space for two perpendicular curb ramps and their landings. Adding curb extensions can create additional space to accommodate two perpendicular ramps and landing areas.

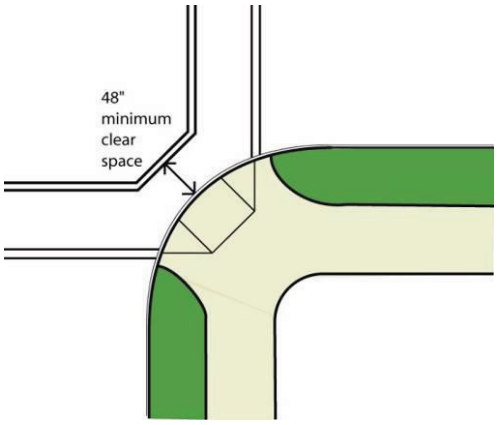
Diagonal Curb Ramps

Diagonal curb ramps are similar to perpendicular curb ramps, but are placed at the apex of the corner. They orient users to enter the street traveling diagonally to the path of vehicle travel. Diagonal curb ramps require less space than dual perpendicular curb ramps, but also require users to take a longer, circuitous travel path than a perpendicular ramp to the other side. They cause the user to travel towards the center of the intersection before maneuvering left or right to cross the street.

Diagonal curb ramps cost less than perpendicular ramps since they are single ramps, and hence the City can install more diagonal curb ramps than perpendicular curb ramps. Diagonal curb ramps are generally desirable on streets with little motor vehicle traffic, where the advantage of installing more curb ramps compensates for the drawbacks.



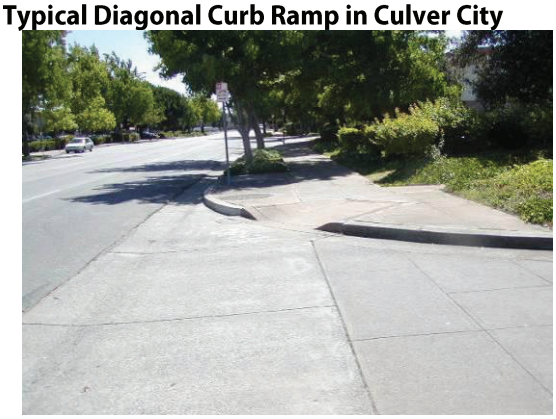
Perpendicular Curb Ramp Design



Diagonal Curb Ramp Design

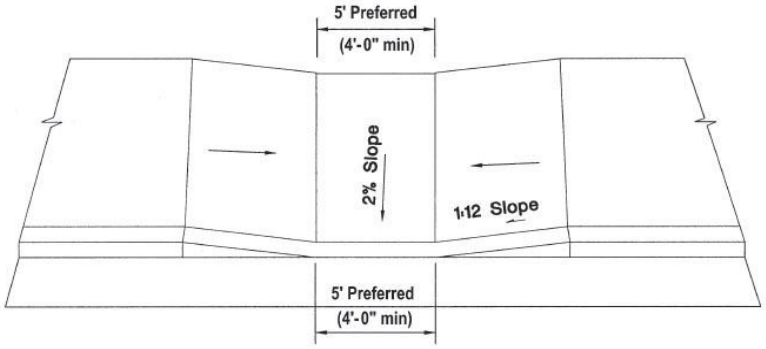
1.11.6. Additional Discussion –City Curb Ramp Guides

Typical Diagonal Curb Ramp in Culver City



Parallel Curb Ramps

Parallel curb ramps are two opposing ramps that slope down parallel to the direction of pedestrian travel. They are generally used on narrow sidewalks where there is inadequate space to install other ramp types. Parallel curb ramps are useful in locations with high curbs, as the ramps can extended to ensure a gentle ramp grade without concern for right-of-way limitations. However, parallel curb ramps require pedestrians continuing along the sidewalk to ramp down and up. Parallel curb ramps can combine with perpendicular ramps to reduce the ramping for through pedestrians where space exists in a planting strip.



Source: Georgia Pedestrian Facilities Guidebook

Parallel Curb Ramp Design

Depressed Corners

Depressed corners gradually lower the level of the sidewalk to meet the street grade. Depressed corners offer the same advantages of perpendicular curb ramps. However, they are difficult for visually and cognitively impaired people to distinguish the transition from sidewalk and street. They can confuse guide dogs as well. Turning motor vehicles, especially large trucks, may intrude onto depressed corners. For these reasons, this guide recommends retrofitting depressed corners with bollards or other intermittent barriers to prevent vehicles from traveling on the sidewalk. Agencies should place detectable warnings at the edge of the sidewalk.

Table D-5
Minimum Curb Ramp Dimension Comparison

Curb Ramp Type	Characteristic	ADAAG Standards	US Access Board Guidelines	Title 24 Standards	Other
Perpendicular Diagonal	Maximum slope of ramps	8.33%; if space prohibits this, 8.33% to 10% with a maximum rise of 150 mm (6 in); or 10% to 12.5% with a maximum rise of 75 mm (3 in)	7.1% + or – 1.2%		
	Maximum cross-slope of ramps	2%			
	Maximum slope of flared sides	10%			
	Minimum ramp width	0.915 m (36 in)	1.22 m (48 in)	1.22 m (48 in)	
	Minimum landing length	0.915 m (36 in); if landing is less than 1.22 m (48 in)			
	Minimum landing width		1.22 m (48 in)		
	Maximum gutter slope		5%		Gutter should be designed to not retain water
	Changes in level		flush		
	Truncated domes		610 mm (24 in)		
	Maximum slope of ramps	8.33%; if space prohibits this, 8.33% to 10% with a maximum rise of 150 mm (6 in); or 10% to 12.5% with a maximum rise of 75 mm (3 in)			
	Maximum cross-slope of ramps	2%			
	Maximum slope of flared sides	10%			
	Minimum ramp width	0.915 m (36 in)	1.22 m (48 in)	1.22 m (48 in)	
	Minimum landing length	0.915 m (36 in); if landing is less than 1.22 m (48 in)			
	Minimum landing width		1.22 m (48 in)		
	Maximum gutter slope		2%		Gutter should be designed to not retain water
	Changes in level		none		
	Minimum clear space		1.22 m (48 in)		
Parallel and combination	Maximum slope of ramps	8.33%; if space prohibits this, 8.33% to 10% with a maximum rise of 150 mm (6 in); or 10% to 12.5% with a maximum rise of 75 mm (3 in)	7.1%		
	Maximum cross-slope of ramps	2%			
	Maximum slope of flared sides	10%			
	Minimum ramp width	0.915 m (36 in)	1.22 m (48 in)	1.22 m (48 in)	
	Minimum landing length	0.915 m (36 in); if landing is less than 1.22 m (48 in)			
	Minimum landing width		1.22 m (48 in)		
	Maximum landing slope		2%		
	Maximum gutter slope		5%		Gutter should be designed to not retain water
	Changes in level		none		
	Truncated domes (parallel); detectable warnings (combination)		610 mm (24 in)		

Table D-5
Minimum Curb Ramp Dimension Comparison

Curb Ramp Type	Characteristic	ADAAG Standards	US Access Board Guidelines	Title 24 Standards	Other
Curb extensions and built-up curb ramps	Maximum slope of ramps	8.33%; if space prohibits this, 8.33% to 10% with a maximum rise of 150 mm (6 in); or 10% to 12.5% with a maximum rise of 75 mm (3 in)	7.1% + or – 1.2% (curb ext.); 7.1% (built-up)		
	Maximum cross-slope of ramps	2%	2% + or – 0.9% (curb ext.); 2% (built-up)		
	Maximum slope of flared sides	10%			
	Minimum ramp width	0.915 m (36 in)	1.22 m (48 in)	1.22 m (48 in)	
	Minimum landing length	0.915 m (36 in); if landing is less than 1.22 m (48 in)			
	Minimum landing width		1.22 m (48 in)		
	Maximum gutter slope		5%		Gutter should be designed to not retain water
	Changes in level		Flush (curb ext.); none (built-up)		
	Detectable warnings		610 mm (24 in)		

1.11.7. Raised Sidewalks

Discussion

These facilities eliminate grade changes from the pedestrian path and give pedestrians greater prominence as they cross the street.

When implementing these measures:

- Use detectable warnings at the curb edges to alert visually-impaired pedestrians that they are entering the roadway.
- The approaches to the raised crosswalk may have a design to be similar to speed humps.

This type of facility requires an extensive evaluation of the specific location's impacts to emergency response times.



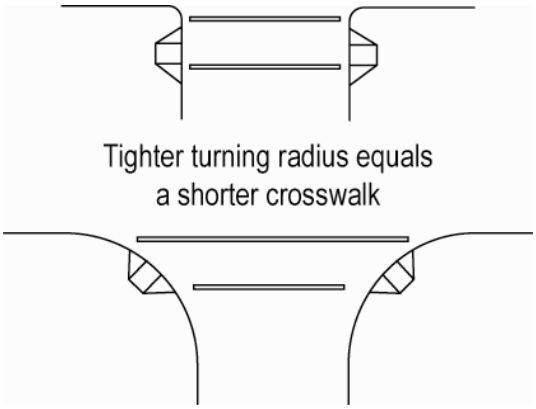
1.11.8. Turning Radius

Design Summary

This street recommends a 20-foot turning radius. Streets with significant volumes of truck or large vehicle traffic may require larger corner radii.

Discussion

A corner's turning radius determines how fast a driver can comfortably make a turn. A tighter turn or shorter radius forces drivers to slow down, allowing them to see pedestrians better and stop more quickly. Intersection corners with short radii increase safety for pedestrians at intersections by creating more sidewalk space and less roadway space. A decreased curb radius also allows for curb ramps aligned parallel to crosswalks.



Turning Radius

Comment	Response
Overall I think the plan is great; however, I would NOT recommend Huron as bike friendly! Unless there is to be a crosswalk or traffic light installed at Washington Blvd, it is not easy to cross there! For the same reason, I would not consider it a good pedestrian street either. It also does not cross Culver Blvd easily. The Tilden/Harter recommendation is also not very bike friendly at the Washington Pl/Blvd and Culver Blvd intersections. I wish we could do something more than bike routes around downtown and at the Jefferson Blvd shopping center, but I understand the constraints. I would also never bike on Sepulveda Blvd. It would not be a good bike route! Too much traffic at too high of speeds, and buses as well. That being said, I think the other proposed changes are fantastic and greatly needed. I appreciate all the changes you are proposing, and I can't wait to see them done!	These are recommended routes for improvements. We will designate them bicycle friendly after traffic engineering analysis and implementation of needed improvements. The purpose of the network is to provide options and alternative routes to cyclists. There are a number of alternative streets that provide north-south connectivity, and not all of them will be appropriate for riders of all comfort levels.
I'm sorry to say that I haven't time to read the whole report but I would hope that a bike path from East Culver City to downtown is a part of the the plan. Something that starts at Helms and goes W on Washington to downtown. Thanks!	There is no separated bike path planned for Washington Boulevard, but we are exploring on-street facilities that provide that connectivity.
In general, I think it is great and I particularly like the creation of bike friendly streets. However, I have three concerns/comments 1. The study identified residential community resistance to access point to Ballona bike path but said nothing about eduction and/or community outreach to demonstrate the benefit of having access point to the residential community. It also did not address this point in the creating a network section (unless I missed it). Seems to me that it will be critical to connect the proposed North-South bike friendly streets around the Culver High School with Ballona bike path for this master plan to be a success. 2. The study identified Overland as the "missing link" in the bike lane (which I agree entirely) but doesn't go far enough in the recommendation. Overland needs dedicated bike lane, not "shared space" sharrow marking. This is an opportunity to change the way the city think of its road space and I think it is really important that the cycling community demand Overland get its own bike lane. 3. The suggested shared space sharrows is a good start but other local cities have done better (Long Beach) or are about to do it better (Santa Monica) with fully painted bike lane/shared lane markings. The Portland style fully painted strip should be part of the recommendation in the master plan.	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points. Bike lanes and sharrows have been proposed based on road widths and other considerations (speed limit, presence of curb parking, etc.). The painted strip is not an approved facility in the current CAMUTCD. The BPMP is only recommending approved facilities. However, as new standards are approved, the City will look for opportunities to take advantage of the newly available facilities (i.e. bike boxes, lane painting, sharrows without curbside parking).

Comment	Response
Hi, I looked at your maps with interest, and I was dismayed to see that there is NO plan to help students and their parents safely cross Sawtelle from the East in order to get to/from El Marino. There are many families, my own included, who would walk to/from school. However, because of the shoddy placement of traffic or pedestrian lights on Sawtelle Blvd., it makes it extremely unsafe. As you many know, Sawtelle rests on a hill overtop Ballona creek. Any car racing down Sawtelle between Braddock and Jefferson/Sepulveda cannot see a person crossing the street....until it's too late. This has been brought up over and over again, however, a request to put in a light for the safety of students has been completely ignored. If the reason is because "studies" have shown that the number of people crossing Sawtelle is low and doesn't meet some kind of standard, I propose this suggestion: perhaps the number may seem low, because it is so terrifically dangerous to cross. You have to RUN across that street to be on the safe side. Please include a cross light on Sawtelle, between Braddock and Jefferson/Sepulveda for the safety of Culver City residents. Thank you, Jeannine Stehlin	The City has been looking at this for a number of years. There have been signals proposed at Blanco/Hayter, but they have not been installed due to community opposition.
I attended the PAC meeting where public input was sought, and have been participating in audits and counts. I forgot to raise, but would like to suggest here, the incorporation in the Plan of bicycle valet parking in downtown Culver City. Here is a link to a Time Magazine article on the subject: http://www.time.com/time/world/article/0,8599,1625309,00.html. Santa Monica offers this; I believe they initially contracted with LACBC, but now use city employees. I think it would do wonders to increase bicycle use downtown. Thanks for considering it.	Bicycle valet is discussed in the "Programs" section of the Plan. The Plan recommends valets for special events. The proposed mobility coordinator would be tasked with increasing bicycle parking in the downtown area and analyzing the need for a regular bicycle valet service, as need arises.
I'll be relocating to the Ventura County area later this summer and frequently riding with friends in the Marina Area. Having reviewed numerous bike plans over the past 10 years I have several comments regarding your plan that I believe should be added in. 1) On your intro page (Page 12) should be mention of compliance SPECIFICALLY to the CA Streets & Highway Code Sections 891.4 (A-K) (BTA). Stating compliance to BTA alone is a rather weak statement. 2) On Page 13 Section 2.1 "Caltrans Bikeway Classification". While somewhat a correct statement the legal classification of California Bikeways is codified (i.e. law) in the Streets & Highway Code Section 890.4. We at Caltrans only incorporated the S&H Code into our guidelines. It would be more appropriate to quote that section and in fact download it and past it into your doucment. 3)Unfortunately, the maps shown on page 16, 66 and 67 do not adequately show your plans interconnectivity to the bike facilities in the towns that surround your city. This plan could be greatly enhanced by showing such interconnectivity the the bike facilities of the surrounding towns. There more facilities than just Venice Boulevard and Jefferson Boulevards.	1), 2) We will add a more specific references to the code, per your suggestions. 3) We will update the maps to show the bicycle facilities that currently exist in the adjacent areas of the City and County of Los Angeles and connect to our facilities. For regional bicycle connectivity, refer to Metro's May 2010 map. We are not including them in this document, but will make reference to them.

Comment	Response
4)Page 30 (Design & Layout). This section needs to be completely rewritten.The reference to the California MUTCD is very week and there is no mention of the mandatry design standards developed within Chapter 1000 of the Caltrans Highway Design Manual for bikeway design. Specifically, the Streets and Highway Code (Sections 890.6, 890.8 and 891) specify that bikeway design, signs and striping must comply to standards developed by Caltrans. Pg 72. The photo shows a Share the Road sign that is NOT approved in the CA MUTCD. Please replace that photograph with one that shows a combination of the CA MUTCD approved signs (a combination of W11-1 & W16-1). Page 82-85 Comment only - your local air pollution control district may be another source for bicycle facility finding. Up here in Fresno it is a major source of funds. Page 89 Complete Streets. This paragraph is weak. Beginning in 2011 local agencies will be required by AB-1358 to begin fully implementing their Complete Streets program. A copy of AB-1358 in an Addendum would be appropriate. Page 94 - Bike Parking. The new national standard for bike parking has been developed by a professional bike/ped organizatio I belong to - the APBP (www.apbp.org). The City would be wise to adopt this standard (though your Bike Plan or a separate Relolution)as the City's standards for bike parking. General Comment - Do you city's buses have bike racks on them. If not this is a good place to list such a program for CMAQ and or BTA funding. Hope this information is useful.	4) We will add more specific language as needed, per your suggestion, and replace the share the road picture. We will explore the funding options available through Southern California Air Quality Management District. We believe the representation of the Complete Streets Act in the document is appropriate given the timeline for the Plan. We will review and consider recommending the APBP standards. All City buses have dua racks on them.

Comment	Response
First, thank you for your efforts to make Culver City more Bicycle and Pedestrian friendly. My comments are focused primarily on bicycle access and mobility. 1. The plan seems to consider Culver City in isolation rather than in its context with nearby cities and a community of riders who enter, leave or pass through the City on bicycles. Venice Boulevard is one major connector and thoroughfare that already has a designated bike lane and is heavily used. There are two other major thoroughfares, Culver Blvd. and Jefferson Blvd. that could handle an equal amount of bicycle traffic and could probably be marked without significant changes to the existing infrastructure. These major arteries also pass by the destinations most cyclists would like to reach. 2. The concept of the "Bicycle Friendly Street" should be scrapped. It could easily become either an excuse to do nothing on the ground that the City is already 'Bicycle Friendly.' Instead, the plan should recognize these streets as readily available for simple and cost-effective conversion to bikeways or sharrrows to be designated with appropriate signage and street markings. Major roadway improvements should focus on where these streets intersect with major vehicle roadways. 3. Use the Safe Routes to Schools program to make each school site act as a sort of 'bicycle transportation hub' so that bike/pedestrian routes and signage expand outward from each 'hub' to the residential areas AND to commercial destination points in the downtown area, Fox Hills and the Jefferson/Sepulveda commercial area. 4. The City needs to get the Police Department on board with this initiative. Police hostility to cyclists (which I've not witnessed, but only heard of) will mean that enforcement of new ordinances or street and lane markings ma be lax. 5. Educate, educate, educate.	1. Culver and Jefferson are included in the proposed network with bicycle facilities that can be accommodated within the existing configuration of the street and in compliance with the California Design Standards and approved Guidelines. If in the future roadway conditions change, bicycle facilities will be reanalyzed at that time. 2. We now propose to make the Bicycle Friendly Street designation after further traffic engineering analysis and implementation of identified improvements. 3. The Plan calls for the pursuit of grant funding and the staffing of a mobility coordinator to oversee such programs. However, the purpose of the Safe Routes to Schools program is to provide access to schools specifically. The plan does provide linkages between the school sites and surrounding residential and commercial areas. 4. The Police Dept. has been involved in the Plan through its participation in the Technical Advisory Committee. 5. An education program for adults, children, and City staff is a component of the Plan.
I feel Blair Hills is left stranded in this plan. We would like to be able to let our son ride his bike to the middle school but feel there is no safe route for him to get to the Ballona Creek Bikeway. Jefferson Blvd between Rodeo and Duquesne is marked as a 40mph zone but drivers rip through there at 60-65mph. There is no bike lane indicated and a rider must ride pass all the parked cars and pray the speeding cars see them. I understand that access to the Ballona Creek Bikeway at Higuera is being considered. I hope it becomes a reality soon and that access to the path from Blair Hills is indicated. Please remember us in Blair Hills and know we love riding ours bikes. Give us a safe route for our son to take to school and we will have one less car on the road during rush hour.	The route from Blair Hills to the bike path requires traveling though the City of Los Angeles. The City of Los Angeles is not governed by this Plan. The plan will be modified to designate the Culver City segment of Lenawee Ave. and portion of Wrightcrest Drive to Blair Hills Park as a Bike Route, with Sharrows where allowed. The City has previously sent a letter commenting on the Draft LA City Bike Plan asking that they connect to our facilities.

Comment	Response
June 18, 2010 Submitted online via http://ccwalkbike.org/public_input/ Comments to the Culver City Draft Bicycle and Pedestrian Master Plan Thank you for all of the hard work that has gone into the draft Bicycle and Pedestrian Master Plan. City staff, consultants and community members deserve much gratitude for all the time that has been invested in this timely project. As a frequent visitor to Culver City and long-time bicycle advocate (10 years on LA Co. Bicycle Coalition board of directors, now retired) I have been eagerly awaiting Culver City's adoption of an ambitious bicycle master plan. There is much good work contained in the Draft Plan but it is held back by a reluctance to implement the transformative changes needed to make cycling a safe, inviting, convenient travel option. The Plan's initiatives focus mainly on the easy stuff. If we are serious about making cycling a convenient choice for greater numbers of residents and visitors to get around, we need to expand on the good framework that this plan provides and significantly rebalance how our roads are designed. Below is a summary of some of what's needed. Expo to Downtown Bicycle Connector This keystone physical project to establish useful bicycle connectivity between the planned Expo station and Downtown Culver City falls short of providing the convenience and safety needed to maximize the benefits this major public investment offers. The obvious and most desirable route, Washington Blvd., could incorporate bike lanes with the removal of approximately 15 on-street parking spaces on one side of the street. This is a small price to pay to provide the valuable multi-modal link that is otherwise lacking. The circuitous Expo-Downtown routes proposed in the Draft Plan are excessively long, inconvenient and will be frustrating to use. It is inevitable that many cyclists will choose to use Washington, and the lack of dedicated on-road space for them sets the stage for conflicts with motor vehicles. The Wesley, Lucerne Improvement Project is good and needed for general neighborhood bicycle connectivity. But this is no substitute for the direct connection that Washington provides between Expo and Downtown. Both are needed. Downtown cycling issues Downtown is the major destination in the city and as such must have better bicycle access from surrounding communities and connectivity within it. The large intersections on Washington and Culver Boulevards must be traversed for cyclists to get through this area but they present special hazards. More attention must be paid to revising the design of these intersections to make them safer for cycling. Bicycle Parking Downtown Culver City, other commercial districts and shopping centers are in short supply of secure bicycle parking.	Bike Lanes on Washington Blvd. to/from the Expo Station and downtown, while desirable, are not presently feasible without the removal of street parking and travel or turn lanes or the acquisition of private property. The current Washington Blvd. striping plan resulted from required traffic mitigation to reduce traffic incursion into the residential neighborhood to the south. Changes to the street would require detailed traffic engineering analysis. Washington Blvd is recommended as a bike route with Sharrows (where allowed) in this segment, which will help accommodate the more confident bicyclists apt to ride on arterial streets. The Plan will be revised to add a new priority project to study the access to and from the downtown area. This analysis would include the necessar traffic engineering review.

Comment	Response
Racks must be sited in locations with pervasive pedestrian activity, near entrances and away fro easy automobile access (bike thieves often use motor vehicles to escape with their booty). Cyclists are customers just like car drivers, they reduce parking demand and relieve congestion. The plan needs to go farther to attract them with safe, pervasive and convenient bicycle parking. Washington Blvd. from Centinela to Washington Place The bike lanes proposed for other parts of Washington will be a great improvement, but this segment remains problematic. In particular, the intersection of Washington and Washington Place is very hazardous for cyclists with no good alternative routes for reaching destinations on this boulevard. Additional measures are needed to accommodate cyclists here. If and when Washington undergoes refurbishment, new designs should embrace a Complete Streets approach that provides road space, safety and amenities for all road users, not just automobiles. Sharrows The several proposals to install sharrows are a great start. The city should take full advantage of them even on streets that do not have on-street parking. Presumptions about possible liability issues (which occur very rarely) if they are used o streets without parking must be balanced with the very real safety advantages that these innovative awareness markings will bring 24 hours a day, seven days a week.	The Plan will further address the placement of bicycle parking. Bike lanes have been proposed on Washington Blvd where the road configuration allows. In other locations, sharrows have been proposed. Sharrows are currently recommended for the stretch of Washington Blvd that meets the requirements under the CAMUTCD (namely, they must be adjacent on-street parking). However, the City will reconsider street designations when the CAMUTCD is updated in approximately two years.
Ballona Creek Trail Access and Safety How much longer should we tolerate the unsubstantiated concerns of trail adjacent neighbors holding the rest of city hostage to their outdated views? Culver City Police acknowledge that the trail is a low-crime area when compared with streets. Similar trails throughout the U.S. have much greater access without the grave problems some here presume will follow. Long stretches have only locked gates where access is needed. The lack of pervasive access limits the usefulness of the trail for everyone, makes it less safe, hampers emergency access and law enforcement. The Plan needs a strategy to initiate greater trail access with mechanisms to deal with any issues that may arise for nearby neighbors. In addition, the Plan should describe a strategy for improving trail safety with increased patrols, improved lighting (especially in underpasses) security cameras where warranted and safety awareness campaigns. Need for an ongoing Advisory Committee It should be clear from this process that citizen input is crucial to creating a top-quality plan that meets the needs of all road users. It should also be apparent that our work is not done. Implementation will require many decisions on design details and revisions to meet our goals of creating a truly bicycle and pedestrian friendly community. The Plan should include policies for establishing a permanent bicycle and pedestrian advisory committee. Again, thank you for all of the good work in the Draft Plan and for the opportunity to comment.	The Plan addresses perceived safety concerns and proposes placing volunteers on the Ballona Creek Path. Also, the Ballona Creek issues will be addressed in greater detail in the final draft. The Plan does not include a recommendation for an advisory committee. Public input can be provided to the Public Works Department Administration Division, the Mobility Coordinator (when created), the City's Traffic Committee or to the City Council.

Comment	Response
Page 10: Table 1.1 is blank Page 11: You say BPMP reallocates motor vehicle resources for bike/ped, but this plan pointedly does NOT do this. It's all grant-based from bike/ped funding sources. All proposed projects prioritize existing road layouts despite glaring gaps in the proposed network. Page 16: Ballona Creek Path should continue west into City of LA Page 26: Table appears to have a lot of errors in the numbers and arithmetic. Mode shares of 0, future results lower than current, etc. Page 34: page is duplicated Page 37: Metro bikes on rail policy is out of date--no longer restricted hours Page 45: Top concern is vehicle speeds; plan claims to address this. Nowhere is a speed limit lowered or traffic calming mentioned besides being possible in the future. If the plan doesn't slow down cars, don't claim it does. Page 58: Mentioned at the workshop for Ballona Cre was coordination with law enforcement dispatch to identify landmarks/mileage marks so that path users can tell their location. Page 69: Should mention that poorly placed speed trailers on right side of lane are often hazards for bikes. Page 74: Special events section should mention weekly farmers market in downtown. Page 75: Plan should suggest a possible location for Ciclov	Page 10, Table 1.1 is not blank, it contains project goals. Page 11 The city's budget does not include funding to implement the recommended programs and projects, so grant funding must be pursued. The network is designed to connect bicyclists and pedestrians to activity centers, schools, commercial locations, and other trip generating destinations. Through public input and fieldwork, a system was designed so that users would not have to travel more than a 1/3 of a mile to get to a facility. Page 16 The Bike Path will be extended into the City of LA on the map. Page 26 Mode shares were rounded, which makes them appear to be zero if they are under 0.5. This will be changed in the final version. Page 34 The duplicate page will be removed in the final version. Page 37 We will confirm the peak hour restrictions. Page 45 This description will be revised as traffic calming can only be done after traffic engineering analysis and thus is not recommended for specific locations in this Plan. Page 58 This will be added to the final version. Page 69 Mention of the importance of correct placement will be added to the final version. Page 74 The final version will mention the Farmer's Market as an example of a possible event for bike valet.

Comment	Response
Page 92: The workshops had a comment about locating cuts in the pavement for utility work away from where a bike would ride to reduce vertical grooves. Also a policy to restore pavement quality to pre-cut condition. Neither are mentioned. Page 98: Should recommend doing an officia pilot of sharrows w/o on-street parking. We know it will become standard in the future. Gaps on Washington Blvd along Sony are a speedway without some kind of pavement marking. Also, is periodic on-street parking going westbound from Duquesne to Overland on Washington, so should have sharrows in that direction at least. Page 99: Overland has on-street parking north of Culver. Should be sharrows. Page 103 (Bike Map): Maintain sharrows connecting Washington through downtown. Streets have some parking on most blocks, and markings should be continuous. The downtown zig-zag is particularly hazardous and bikes need all the help they can get. Also p103: Somewhere should specifically address making Higuera street closure through for bicycles as part of BFS. Page 108: Overland should be considered one project, even if different markings have to be used (which they shouldn't). Would not make sense to do it at different times. Page 113: Why does section of Overland along Sony w/ on-street parking not qualify for sharrows? Page 121: On Washington, many of the crossings are red for peds unless activated, requiring peds to wait through at least one light cycle at every intersection--it's a pain. This was mentioned at the workshops.	Page 92 This will be added to the section describing the workshop. The plan will be revised to state that the City will explore revising its standards to require full repair of cuts in designated Bike Lanes. Page 98 The Plan does not recommend such a pilot. Pilots are currently underway in other areas and the City will consider such treatments when they are approved under the CAMUTCD. Page 99 Sharrows will be considered for this location. Page 103 Sharrows will only be placed where there is on-street parking. Thus, some stretches of Washington Blvd do not support sharrows at this time. Requiring the Higuera diverter to be modified to allow through bike movement would require detailed traffic engineering and physical design changes. The plan will be revise to add this analysis as a future project. Page 108 Projects were not necessarily intended to include entire streets, but rather key segments. Page 113 Same as p. 99 comment. Page 121 This suggestion will be considered.
As a member of the Culver City Green Ordinance Advisory Committee, a Culver City resident, a bicycle commuter to and from Culver City, Santa Monica, and Downtown LA, and as an Architec involved in development projects in Culver City, I would like to see the Planning Department reduce the car parking requirement in certain areas designated for high density. For example, on my street, Helms Ave, south of Washington, most of the lots are designated as RMD, which allows up to four 3-BR units on 6500 sf lots. However, the Planning code requires 9 parking spaces on such lots, which means that parking is forced either fully underground or semi-subterranean. This elevates costs to a substantial degree, and, at least in my case, has prevented realization of at least one development project for financial reasons. Part of encouraging cycling and the use of alternative means of transportation is to actively discourage the use of the private automobile. An easing of the parking requirements makes ecological, financial, and urban planning sense.	The reduction of required on-site parking is not with in the scope of the Plan. However, the plan will be modified to incorporate exploring the potential for reducing required parking for development, if additional bicycle parking above required bike parking is provided.

Comment	Response
First of all, it's a great document, all the teams did a great job compiling and generating the package. Excellent results. Safe routes to school. Adding to my comments above, I support the safe routes to school initiative. Unfortunately, 3 major schools (Farragut Elementary, and Culver City Middle and High Schools) are located near the inside corner of Elenda and Farragut, meaning that over half of the school age children in Culver City converge on a single sided entry of 3 blocks within a 2 hour period every morning between 7 and 9 am.	Network access to schools will be addressed during the revisions.
Addressing the Los Angeles gaps: 2 main north/south routes are missing from this study because of unincorporated LA gaps. The Sawtelle Bike and Pedestrian Corridor starts at Venice and stops at Braddock, rather than continuing through LA and picking up again after crossing Ballona Creek. Because of this we miss all of Sawtelle as it curves up to Sepulveda and continues to Overland near El Rincon Elementary. Additionally, there are numerous pedestrian crossings that are required to cross Sawtelle to serve El Marino. This similarly happens with Sepulveda as it crosses into LA near the McDonalds and doesn't con back into Culver City after Ballona Creek. If this document could address the existence of these gaps, stating that this draft only covers Culver City, but that we envision a linking through adjacent LA City and Unincorporated areas to provide a continuous pedestrian and bicycle network. That would allow the adding of large swaths of Sawtelle and Sepulveda that are missing from this document.	The Plan will address the limitations of the network, including challenges presented by jurisdictional boundaries and private property. The City did provided written comments during the City of LA Bike Plan Update requesting that they included connections to our proposed network. We will provide similar comments to LA County if their draft update does not include connections.
Bicycle Project 3: Farragut Drive... Add Culver City Middle School to the list of schools (sentence to say: direct access to Culver City High and Middle Schools, and Farragut Elementary.	The text will be mentioned in this section.

Comment	Response
Pedestrian Project 1: Braddock Drive... I would like to see the crossings at the 2 arterials: Sepulveda and Overland better addressed. Currently my children cross Sepulveda on Braddock in the morning and afternoon to go to the MS/HS, and have near-miss collisions from automobiles turning right from Sepulveda to Braddock. I'm sure this similarly happens at Overland and Braddock. Addressing no right turn requirements during specific times (similar to Washington and Elenda for La Ballona), will help mitigate this issue.	The proposed project will be revised to include analysis of these intersections to address this comment.
It is really exciting to see progress in making Culver City more walk and bike-friendly, and I really like the way the BPMP takes into account many different factors and facets of this very complicated issue. In addition to the specifics of the plan, I think it is really useful and helpful to have the document that compiles so much information into one place and is a good resource and tool in general. And, of course, I also like the way the plan really does make progress and improvements in safety and access in ways that are, as these things go, relatively easy to implement, so this means that real improvements are within reach. Longer-term/ideal Goals Since the current plan cannot reasonably include every desired ultimate improvement, it would be good to include a section of desired improvements that are not feasible at the current time, but are conceivable as potential future improvements/goals. This can be used to guide future development, and also as a record to provide some continuity in the future and prevent wasted time/energy as the issue is revisited.	We will add some longer term goals and an expanded description of the Plan's vision in the final version.
Tracking/Responding to Public Comments At the BPMP public workshops and through the website, members of the public had opportunities to make suggestions, share their experiences, etc. It would be very helpful for these comments to be collated, responded to, etc. This would serve a variety of important functions: it would help demonstrate to members of the public that their feedback had been received, considered, etc., even if the comment expressed a desire for some change that was impossible, for example, it would be very helpful for people to know the reasons, both to understand the complexity of the issue, and to know that they had been "heard", also a record of public comments would help make the process more efficient and avoid repetition.	This document addresses the public comments and will be incorporated into the Plan.
Related to this -- it would be helpful to have a FAQ list on the website (e.g. why there can't be a bike lane on Washington at his time, can we remove the low gates at the bike path access points, etc., etc.)	As mentioned above, this document addresses the public request portion of the BPMP Planning process. Also, if the City is successful in funding and hiring a mobility coordinator, that staff member could be tasked with maintaining an FAQ component of the website.

Comment	Response
City Commitment I think it is important that one outcome of the BPMP process be that bike/walk issues become more salient in the City in general. This raised profile for biking/walking would mean that whenever construction and development in the city (both private and public) is considered, these issues are featured prominently. I think this is important for overcoming the systemic bias in favor of car travel, and for efficiency and compliance in projects that involve different City departments. This idea is what is behind the BPMP in general, and the Complete Streets idea too, and the hirir of a City staff person who would oversee these issues, but I think the plan would be strengthened if there were some language specifically about this, including specific discussion about the City's commitment to the issue and how this is now something that becomes part of the picture throughout the City.	This comment is addressed through the City's adoption of the concept of Complete Streets and administered through the proposed hiring of the mobility coordinator. Also, the final version of the document will contain a revised vision statement aimed at better articulating the City's commitment.
Physical Examples It would be very helpful for people to see actual examples of, for example, a "Complete Street" (a few blocks of Washington Blvd, somewhere between La Cienega and Helms? -- ties in with Expo construction?), and a Bike-Friendly Street (part of SRTS?). The City could aim to develop some smaller sections of streets as a demonstration/showcase, even just a few blocks long.	The final document will include a case study on Complete Streets from another jurisdiction. Also, as the City begins implementing the Plan, it will naturally occur in stages, providing a template for future improvements.
Data Collection/Analysis The Evaluation part of the BPMP, and is really important and it's good to see it in the plan. Collecting good data is very important, not just for evaluating the efficacy of improvements, but for determining the need for further improvements, and crucially for being able to discuss the issues in an informed way, e.g. what will the projected results be of proposed changes? This also has the potential to be a useful tool at helping implement future improvements, e.g. if merchants knew how much increased foot traffic there would be projected to be in a particular location, or how many people might actually walk or bike between two locations and combine errands if there were a safe way to do it, etc. Part of the BPMP then should include the collection and analysis of good data about the issue.	A recommendation on scheduled evaluation will be included in the final version of the document.

Comment	Response
Also, the BPMP, reasonably, includes discussion of data collected from the public workshops and online surveys, but the actual response rate is very low. It's simply not a representative sample. It is important then for the City to continue to work to collect data on issues related to biking/walking.	In the Plan, we note that the data we collected from public workshops, online surveys, etc. are likely not representative of the community as a whole. However, gathering data via other means (such as phone surveys, etc.) was not within the Plan's budget, and we believe the data collected is still instructive. Getting updated data will be a responsibility of the proposed mobility coordinator.
Expo Light Rail Construction It seems that there is still much that is unknown about specifics related to Expo-related construction and development. This project is really important for transportation in (and to/from) CC. e.g. the intersection of Washington and National, and the area near there, is undergoing major changes, pedestrian access across National (more or less between La Cienega and Washington) is currently blocked, but under transition, the Kronenthal Park entrance to the Ballona Creek bike path is currently closed, etc. Although issues related to the construction are relatively temporary, they will continue for at least another year? two years? Bike/walk issues should be prominently considered during this time of construction, in addition to, of course, keeping them in mind as development progresses. The light rail is such an important potential change in CC transportation issues, so it is importar that bike/walk issues are kept salient as this construction/development progresses.	The City is in close communication with Expo. Bicycles and pedestrians are an important consideration in construction. However, there are limitations due to road width and construction requirements that may temporarily adversely affect travel, both motorized and non-motorized.
Incentives In addition to actual physical changes to facilitate biking and walking, it is also necessary to really change people's behavior. To this end, incentives and encouragement of various kinds are necessary. Some will come naturally through improving the environment and infrastructure for walking/biking, but there is good evidence that offering actual incentives/rewards, even small ones is very helpful. The Outreach Subcommittee has offered some suggestions to this end, but it is important for the City to work to find creative solutions in this area.	The programs recommended in the BPMP address the non-infrastructure encouragement programs that can be explored in Culver City.
2. Smaller Issues The proposed networks go quite near to, but don't include two areas that would seem to be good candidates for inclusion: El Marino School and Park (includes elementary school, preschool, high school, park)	The plan will be revised to designate Bike Route, with Sharrows where appropriate, connecting to El Marino area.
Howard Hughes Promenade shopping area It seems they should be incorporated.	The Promenade is not within Culver City's borders, and thus this Plan does not address it specifically.
p. 43, Wesley -- missing Saturday data?	Not all locations were able to be staffed by volunteers for the three observation periods.

Comment	Response
p. 57, The comparison of CC collision/accident statistics to Santa Monica is given somewhat randomly (it seems). What is the basis for the comparison? Population? Demographics? Geographic size? It is confusing because it seems like an unlike comparison. Whatever the population, etc., Santa Monica has much more foot/bike traffic than CC (many tourists, more development of a kind that encourages bike/ped traffic, beach proximity (including walking/biking path along beach), so it is not surprising that they have more collisions. The relevant comparison would be to an area with similar numbers of bikers/walkers. If this is true of Santa Monica, this should be explained explicitly, if it is not true, it seems to not be the right point of comparison.	Santa Monica was chosen for its proximity and size. However, we will revisit this section in the final version of the document.
p 68, Toronto "trail ambassador" link broken This link seems to be one that does lead to the program that is mentioned: http://www.toronto.ca/cycling/ratsa/index.htm	We will fix this link in the final version.
p. 91, What does it mean to add walking to "preferential parking"?	We will revise this in the final version.
p. 3: Executive Summary "An analysis of collision statistics over the past five years indicated the relative safety of bicycling and walking throughout the city." - relative safety may also reflect current reality of limited biking in city (as more ride, barring improvement, accidents may increase)	The relative safety was determined though a comparison of local collision data to state data. We will revise this in the final version.
p. 7, plan will be updated every 5yrs › how does that work? who updates? what resources allocated for this process? will there be an assessment of how the plan is working so far? will there be a chance for public input (other than before Council, which is limited to 3 minute sound bytes)? will there be a dedicated person to address comments/concerns from the public in between updates? who will see through implementation?	The Public Works Department(PWD) will be responsible for the implementation of the Plan. The PWD Administration Division will be initially tasked to work on activities designated for the proposed mobility coordinator until the position can be created, funded and filled. Public Works will work with Planning, Police, and other relevant parties on implementation. Bicycle plans must be updated every five years to be BTA compliant. However, the details of this update will be determined based on available resources at that time. Evaluation criteria are included in the Plan.
p 91, "Open Space Element of the Culver City General Plan discusses sponsoring bikeways. Bikeway sponsorship involves the placement of advertising signage along bikeways, with revenues typically going into a general maintenance fund. Recommendation – Implement a bikeways sponsorship program. Revenue could be used towards maintenance costs and security improvements." I strongly recommend against this 1) Culver City has a billboard ordinance (= no billboards), 2) potential danger (in conflict/competition with recommended way-finding signage	If this program is implemented, compliance with existing ordinances, community aesthetics, and safety will all be considered in the design guidelines.
p. 92 › hiring a Culver City mobility coordinator YAY! If we have the right person, this would guarantee the success of this plan (ongoing assessment of BPMP).	The proposed mobility coordinator has the potential to be a very valuable resource.

Comment	Response
p. 94 › "Add pedestrian facilities at areas with high pedestrian activity. Pedestrian facilities can include (but are not limited to) enhanced maintenance schedules, widening sidewalks, lengthen crosswalk times, bulbouts, high visibility crosswalks, benches, street trees, water fountains, etc." what about traffic calming? one reason for not walking in certain areas (example WA Blvd. from Metro-to-be to Downtown) - cars going too fast - loud, dusty, perceived or real safety concerns (kids). A counter example is Downtown CC: part of creating pedestrian friendly environment went beyond trees, benches & public art (which, I agree are very important), it included increased pedestrian crossings, improved crosswalk signals (easy to press, countdown signals, beeping), and a whole new traffic pattern.	Enhanced pedestrian friendly designs are included in all pedestrian corridors, and traffic calming features will be considered after traffic engineering analysis approval.
p 96 › illustration of sharrow (discussed during last PAC workshop) which one gets cyclists out of door zone? bike lane or sharrow? I've heard conflicting answers to this question.	Minimum design standards place bicyclists outside of the door zone in most circumstances, but do not account for the variables of human behavior. Facilities do not absolve bicyclists of their responsibility to be alert of the potential hazard of opening car doors. That being said, whether bike lanes or Sharrows are preferable depends on the individual situation.
pp. 98-99 › significant care has been made in the draft plan to add lanes/sharrows only where they can be installed without significant improvements/road work. What is the purpose of this plan, to aspire only to the limitations of today? - or to make a road plan for the future (under different economic circumstances, political will & environmental priorities)? I think this plan has very successfully presented the low-hanging fruit (concrete projects that can realistically be achieved in a 5-year span). This is indeed important, however, we also need to reach for the summit. The plan needs to demonstrate vision. We have spent significant time, money, care - blood sweat and tears, if you will - on this plan. We have an amazing amount of information, comments and desire on the part of the community and our partners in this plan. We need to set out long term goals based on this information. It is neither efficient nor is it satisfactory to put off real vision until the update in 5 years. It does not make sense to be so unambitious.	The BPMP is the first step in transforming Culver City into a place that accommodates more bicycle and pedestrian travel. It will be a tool for the City to work within the confines of available funding mechanisms, its own physical environment, and the will of the citizens. However, the vision section of the document will be revisited in the final version.
p. 99 › signage not very effective - more distinctive? visible?	Signage will be used according to the latest standards and best practices in bicycle and pedestrian way finding.

Comment	Response
p. 100 › "Bicycle Friendly Streets will include—at a minimum—standard bicycle route signage, and may also include custom signage, Shared Lane Markings, and where determined through future engineering analysis traffic calming features. As funding will allow Bicycle Friendly Streets will be analyzed after implementation to see if additional traffic calming measure should be implemented." Traffic calming shouldn't be such a low priority. If we're encouraging people to bike and walk, signs are not going to make it safe or possible to do so - only traffic calming will. If they're not "friendly" they cant be called "friendly." School Board member Scott Zeidman's son got run over on Farragut (called bike friendly street, p 101) - it is, in my view, irresponsible to promote biking w/out making it safe. Stronger language - stronger priority.	Traffic calming installations will be implemented after traffic engineering analysis deems them appropriate. Additionally, traffic calming is not the only method of encouraging bicyclists to ride or making a street safer for bicyclists. The Programs section addresses these situations when infrastructure may be less effective.
Does bike lane in Fox Hills connect to Antioch College? (College should be marked on legend.) Will there be sufficient bike parking in Westfield?	Antioch College will be added to the map. The Bike Lane on Hannum Ave would provide access to Antioch College area. Bike parking in private development is dictated by Zoning Code. Now that Westfield is completed, it is challenging to require additional bike parking. However, the recommendation for increased bicycle parking will be passed on to the Planning Division. The commenter is also encouraged to contact Westfield directly and request that additional bike parking be provided.
p. 105 proximity to schools - add Antioch	Antioch College will be added.
p. 112 › WA Blvd., overall vision of TOD (Transit Oriented District) from RDV (Redevelopment Agency) - cohesion/cooperation/sharing resources share plan w RDV - look at possible shared resources & potential conflicts	The City has and will continue to work with the RDA on bicycle planning.
113 › Overland, high speed zone - if we can't do traffic calming we need to do major enforcement - Priority safety study - look @ not only bike/ped accident stats, but car accident stats - if speed not addressed, will not be safe	Overland Ave will be evaluated for the placement of bike lanes between the Ballona Creek Path and Culver Blvd.
114 › Farragut also Middle School access (add to description) high traffic volume - significant school traffic - this is where child struck (S. Zeidman)	We will add Middle School access to the description.
p 115 › Jefferson: safe access to WLAC (West L.A. College) & condos (ability for bikes to turn left)? Glass & debris major problem along Jefferson for bikes, there's also a visibility issue for cars going into/out of business driveways.	Jefferson Blvd is swept regularly. And features bike lanes and signage in various segments
p 116 › Braddock - needs traffic calming	Traffic calming will be implemented only after traffic engineering analysis deems it appropriate.
I'm attaching the doc I passed out at the 6/3 meeting. It's a draft of a Policy idea to improve safety at dangerous intersections. I wrote it with downtown in mind. The Biking Subcommittee endorsed it in April. I'm not attached to specifics, but just hope for some policy to encourage motorists to share the lanes with bikes, targeted toward "challenging locations."	Signage indicating that bicycles may use the entire lane and colored sharrows are not currently approved devices. If and when they are approved, the City will examine appropriate locations for their installation, focusing on "challenging locations" among other things.

Comment	Response
I hope Ron has passed on to you the other items we supported at our April Biking Subcommittee meeting. We endorsed a Cyclist's Bill of Rights and also a policy to conduct an ongoing survey of bike parking in the city to respond to the need for it.	The spirit of the Cyclist's Bill of Rights is injected into the BPMP with the attention to complete streets and an equal transportation system for all visitors and residents of Culver City, though not adopted verbatim. The BPMP has been amended to include language that recognizes that cyclists have the right to and may use all roadways.
Goals To promote the safe and confident use of existing traffic lanes by bicyclists by 1) defining the roadway as a "shared resource", and by 2) informing and reminding all vehicle drivers of the need to share the traffic lanes.	The vision statement will be revised. Approved signage will be used, where appropriate, to remind drivers of their responsibility to share the road as described in the Plan.
Objectives To improve driver and cyclists' safety by clearly and concisely making drivers aware of the law regarding cyclists' rights to the roadway. To identify locations within the city where cyclists are especially challenged by existing roadway conditions, such as high traffic volume or narrow traffic lanes, and to increase drivers' awareness of cyclists at these locations. To encourage cyclists to ride safely and legally throughout the city, especially at the above-mentioned challenging locations.	The BPMP identifies programs and infrastructure that focuses on education of bicyclists and motorists. The BPMP identifies places where pedestrian and bicyclist collisions have occurred in the past five years, and seeks to address these areas of the City through education and prioritized projects.

Comment	Response
Policy The city will take actions to generally increase drivers' awareness of cyclists in the roadway, and their right to use the full lane when conditions warrant it. Additionally, the city will identify locations of special concern for cyclists on the roadway. Concerns will include a high traffic volume or speeds, narrow traffic lanes, limited visibility, or special circumstances requiring cyclists to cross lanes of traffic. Priority will be given to areas where there is not a convenient alternative route for cyclists to reach destinations. These "locations of special concern" will be studied to assess the potential for improving safety. Remedies will be considered and applied with the the clear intention of making the roadway safer, in accord with requirements and restrictions of California law and codes.	The recommended on-street facilities will encourage bicyclists to legally use the roadway. When available funding permits, education programs can instruct bicyclists on when it is permissible to utilize the entire travel lane. As mentioned in the comment above, programs and recommended infrastructure address the areas where multiple bicycle and pedestrian collisions were reported. The BPMP has been revised to identify the following locations where the roadway configurations may be unusually challenging for cyclists; Downtown Culver City Washington Bl., between Overland Ave. and Downtown; Sepulveda Bl., between Centinela Ave. and Playa St./Jefferson Bl.; Jefferson Bl, between Sepulveda Bl. and Duquesne Ave.; and, La Cienega Bl. These areas will be analyzed in the future to identify ways to make these areas less challenging for cyclist to navigate.
Implementation City will develop a toolkit of actions that may be applied consistently at various locations. However, each location will be studied for its specific needs; all remedies will be site-specific and appropriate to road conditions. City will develop appropriate signage that conveys that cyclists are allowed to use the full traffic lane. This signage may be used where appropriate, and where it will be considered helpful to cyclists' safety. City will adopt a preferred pavement marking for roadways that challenge cyclists, such as a colored Class 2 Bike Lane, or a colored Sharrows pathway, with the intention of both encouraging cyclists to ride in a defined portion of the roadway, and increasing driver awareness of cyclists in the roadway. The city may develop other applications to be used where appropriate to improve driver and cyclist safety. The city will install devices at locations that may benefit from increased driver awareness.	Signage indicating that bicycles may use the entire lane and colored sharrows are not currently approved devices. If and when they are approved, the City will examine appropriate locations for their installation, focusing on "challenging locations" among other things.

Comment	Response
These are designed to supplement the original list of recommendations from 1/30/10. We feel this aspect is vital to the plan, since it is important to find creative and effective ways to really change people's behavior, in addition to physical changes that facilitate walking/biking. city staff person/mobility coordinator in charge of walk/bike issues is great idea, and could coordinate many of outreach efforts suggested by Outreach Subcommittee below, and also suggestions made in late January (e.g. website updates on walk/bike issues, current status of walk/bike-related projects, email blasts re: walk/bike issues to those who've expressed interest, coordination with SRTS, etc.)	Yes. This is the intent of the proposed mobility coordinator.
# employer education/incentives to create policies that promote non-auto commuting to work -- find ways to encourage employers to do this * assist companies with small incentives to give to employees. etc * City program to awards/acknowledgment of local businesses that increase the % of employees who commute to work without driving * offer bike education class at major employers in the City financial incentives, even relatively small tokens, e.g. partial rebates for helmet purchases, small gift certificates to local businesses education/outreach to assist people learn about utilitarian biking/walking (how to carry things, multi-modal connections for partial bike/walk trips) bike safety/repair/education courses offered through Culver City Living/Parks & Rec (The city offers many fee-based programs for children -- camps, courses, etc., these could include some bike education either short courses, or as components of longer courses.) NOTE: these could be combined, e.g. participants who successfully complete bike course get $5 gift certificate for local bike store, etc. pointers re: increasing utility of walking/biking, e.g. how to carry things, multi-modal	The City will also continue to look for opportunities to partner with other organizations to promote and incentivize cycling. For example, as part of a Safe Routes to School grant, the City may be able to work with local schools to provide small prizes to school children. Also, the propose mobility coordinator could work with volunteers and local businesses to organize educational opportunities and fund prizes.
consider bike/walk column in local paper	Though the proposed mobility coordinator would be able to provide information for a column to be written.
* develop walk/bike "trip planners" available online and possibly as apps for mobile devices, etc., possibly including Google Maps, to help people plan walk/bike trips, including amenities on route, multi-modal connections, points of interest, etc.	This is already available through Google Maps, Metro, and other online resources. The City will explore a permanent online presence for its bicycle and pedestrian programs, implementation efforts and other actions under the proposed mobility coordinator's supervision.

Comment	Response
First of all, great job on getting that all together. The municipal code recommendations look great, as does the prominence of "Complete Streets" in various places. Two areas I think where we could go further are: I. West CC -› Downtown: great improvements on Washington until Overland, where cyclists should really be moved down to Culver Blvd, either along Overland or Elenda with signage. With the comments on p28 regarding Washington for autos and Culver for peds, I think we should consider slowing traffic on Culver Blvd, and make space for bike lanes, either by removing parking by the studio or road diet. If we're really serious about this, autos should be "encouraged" to move to Washington or Venice.	Washington and Culver Blvds., from Overland Ave through Downtown will be studied in more detail. The BPMP has been revised to reflected this project.
I. East CC -› Downtown: Extend Downtown area to be Madison-Ince (currently Madison-›Main), so it includes the Washington/Ince intersection -- lots of peds here coming from that parking structure, and more with the coming of the Expo line. That intersection is awful for peds, both for signal timing and for safety. The larger issue is that the Washington Blvd. corridor between Ince and Expo line is un-bikeable, due to the speed of cars and lack of shoulder.	The Downtown area (the "CD Zoning District" in the City's Zoning Ordinance and General Plan) includes Ince. Pedestrian Project 5 and Bicycle Project 1 extend through the Washington/Ince intersection to the Expo area. This intersection and corridor will be looked at again in the final version of the report.
I would like to encourage the attendees at the meeting to think about what we want Culver City to look like in 5, 10 years. If they agree with the vision of Culver City as a destination (where people park and walk) rather than a thoroughfare that people use to get to somewhere else, then hopefully there would be enough public support to de-prioritize automobile traffic on both approaches to Downtown CC. I don't know what the extent of public support would be, but it seems that if people think about it, and decide that it's a good idea, then they should submit these comments and we can push the BPMP just a bit further.	Washington and Culver Blvds., from Overland Ave through Downtown will be studied in more detail. The BPMP has been revised to reflected this project.
Take entire lane from on Washington from Downtown to the Beach for only bikes and buses	The portion of Washington Blvd that is within Culver City and within the jurisdiction of the Plan has been examined for bike facilities given existing curb to curb widths.
Washington Pl: include this as a bikeway and coordinate with LA to fill the gap not in Culver City (between Centinela and Sawtelle)	Washington Pl is a recommended bike lane in the BPMP, and the City of LA has indentified it as a bike lane in its draft Plan.
Sepulveda: must put sharrows and bike lane (not just a route!)	We have examined the use of Sharrows where feasible. Sharrows are currently only approved for streets with a maximum speed limit of 35 miles per hour.
Sepulveda: sharrows and bike lane	Same answer as previous.

Comment	Response
Sepulveda: bike parking	The Plan addresses methods to increase the amount and quality of bicycle parking and bike parking will be discussed further in the final draft of the document.
Culver City HS: bike education for kids to start a bike culture (or popular thing to do)	Bike education is addressed in the "Programs" section.
El Marino: needs better access to El Marino and high school and preschool. (See map for suggested streets)	Schools will be examined additional bike/ped facilities, where feasible.
Connect bikeway on Playa St to West Fox Hills to the southwest	Bicycle facilities have been proposed connecting Playa St. to the Fox Hills area. An additional Bike Route has been added to the BPMP on Bristol Parkway, between Slauson Ave. and Centinela Ave.
Make Sepulveda more bike friendly, especially at Fox Hills mall	There are currently limited options available for making Sepulveda bike friendly in this area given the existing curb to curb widths. The Plan is intended to provide options for cyclists of all comfort levels, and some cyclist may choose to use non-arterials over arterials like Sepulveda.
Jefferson: sharrows and bike lane on section just north of intersection with Sepulveda	Sharrows and bike lanes have been proposed where feasible given speeds, presence of on-street parking, and curb to curb widths.
Slauson: add sharrows and bike lane	Current configurations of Slauson to not permit bike lanes or the standard use of sharrows. An update to the CAMUTCD and a reduction in speed limit would be necessary for a bike lane or shared lane marking on Slauson.
Intersection of Venice and Motor at wash - very dangerous!	The intersection of Venice and Motor is within the City of Los Angeles. The injury data shown on Figures 3-3 and 3-4 do not suggest that this area is "dangerous."
Braddock Dr: repave the road	Street maintenance is important for cyclists as mentioned in the Plan. This recommendation will be passed on to engineering staff.
Add more access points to Ballona Creek (see map for suggested locations)	The BPMP includes a new connection to the Ballona Creek at the Higuera Street bridge. There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points. However, the City Council will be asked if they want to direct staff to further explore opening additional access points to the Ballona Creek Bike Path.
Culver Blvd near Duquesne: flashing sign notifying motorists to slow down and signals set for 20 mph	A 20 mph zone in this area would be unlikely to be effective or enforceable.
Ballona Creek at Duquesne: dangerous exit from path	Changes to this area are under consideration.
Main St. should have bollards for Farmers Market days	The final draft will address the farmers market and ways to make it more pedestrian friendly and accessible.

Comment	Response
Culver Blvd: add sharrows from Duquesne to Sepulveda	We will continue to examine the use of Sharrows where feasible. However, there is currently a bike path from the westerly City boundary to Elenda and some of the stretch between Elenda and Duquesne lacks on-street parking and thus is not eligible for Sharrows under current standards. However, where on-street parking does exist, the BPMP has been revised to add Sharrows.
North of Ballona Creek (just east of Duquesne): staging area for the bike path, pavement markings and striping	The final Plan will include a larger discussion of the Ballona Creek Path.
Braddock Dr, Farragut Dr, 95% of cars do not stop at stop sign	The Plan includes recommendations for enforcement, which is an important part of keeping all users of the road safe.
National Blvd and Wesley St: missing school	Schools will be added in the final version of the document.
Washington Blvd near intersection with Culver: 20 mph zone (for bikes and ped) for CARS	A 20 mph zone in this area would be unlikely to be effective or enforceable, since it would not meet the 85 percent rule (see http://www.ite.org/standards/speed_zoning.pdf for more information on the 85 percent rule). This segment of Washington Bl. will be analyzed further for potential improvements.
At Expo Station: bike storage, bike repair a la Long Beach. Must be SAFE bike corridor to station	Expo is considering including a bike storage facility. Also, there will be a 12ft sidewalk and bike path connecting Expo to Ballona Creek.
Elenda St: existing access to Ballona Path should be striping through middle school parking lot	The school parking lot is not a City facility and thus this issue will have to be addressed in collaboration with the school district.
Coombs St is vastly superior to Elenda as a bicycle friendly street. Elenda, under no circumstances, is a bicycle friendly street.	Elenda was chosen in part for its connectivity. However, we now propose to make the Bicycle Friendly Street designation after further traffic engineering analysis and implementation of identified improvements.
Culver City has one high school @ 2500 Students, one middle school @ 1600 students and are adjacent to each other. Any bicycle plan that does not include High and Junior High schools is not a bicycle plan.	The Plan includes connections to these schools.
Braddock from Overland to Duquesne needs to be repaved like it is from Overland to Sepulveda	Street maintenance is important for cyclists as mentioned in the Plan. This recommendation will be passed on to engineering staff.
No place to walk into shopping mall (east of intersection of Jefferson and Sepulveda)	Pedestrian access to existing private facilities is challenging. The Municipal Code was amended after these centers were constructed to require pedestrian pathways from adjacent public right of way for developments of/or adding more than 100,000 square feet of floor space. The BPMP has been revised to include a recommendation that the City explore reducing the threshold to 50,000 square feet.

Comment	Response
Library access crossing Overland	The City does not install unsignalized mid-block crossings and the crossing has yet to meet the warrants necessary for signalization. Currently, pedestrians can cross along the Ballona Creek Path or at an adjacent signalized intersection. The City will continue to explore options for enhancing access in this area.
Fix sidewalk (near Ince Blvd, Hayden Pl, Lucerne Ave, Higuera St - see map)	This suggestion will be relayed to our Public Works Maintenance Operations Division.
Foliage restricting sidewalk (same neighborhood as above - see map)	If foliage is on private property, it is the property owner's responsibility to ensure it does not create an obstruction. If more detailed locations are provided, they will be relayed to Code Enforcement.
Overland at West LA College: address	Overland Avenue will be evaluated for the installation of bike lanes and shared lane markings.
1) Very much for safe pedestrian and bicycle paths and ways for all children to go to school. 2) When you establish what you want, have at least a group of 10 go to City Council - could be different people each time.	Safe Routes to School is covered in the Plan. Also, the City has applied for the 2010 Safe Routes to School grant to improve safety around Linwood E. Howe Elementary School and will continue to seek Safe Routes to School grants as staffing and funding permits. The public are always encouraged to attend and participate in City Council meetings.
Include School population in all planning - high school, middle school - Faraggut Bike Lane	Schools are included in the planning of nearby projects. For example, they have been highly involved in the Ballona Creek Path Improvement Project between Overland and the Pedestrian Bridge and Safe Routes to School application processes.
Add youth cycling skills Ed	Education is addressed in the "Programs" section of the document. Education is recommended to be school based (for youth) as well as aimed at adults.
Add police education	The Plan proposes education for City staff, which includes Police as well as others who work in the public right-of-way.
Share the Road Education Campaign: target motorists	The Share the Road Campaign, like all educational campaigns, should educate all users of the road, including not only motorists but also cyclists and pedestrians.
Simple "share the road" signage will help spread the word that more bike traffic is coming!	Bike route and share the road signage is proposed as part of the Plan. However, it will be used judiciously, as placing signage everywhere may lead to visual clutter and reduce its effectiveness.
Overall: sounds good! Works fine.	Thanks.
CC Police must be on board to facilitate/support bike culture	The Police Department has been actively participating in the development of this Plan through their work on the Technical Advisory Committee.

Comment	Response
Bike Light Campaign: bell? Could be less of a priority. Better when have more bike lanes.	The proposed programs are intended to work alongside but not replace improvements to the network.
Bike theft Sting Operations/ Patrols. Watch neighborhood, check 4 people on bikes that do not fit them	A potentially more effective way to reduce bicycle theft is to appropriately place bicycle parking.
Enforcement of stop signs around schools. Police patrol on Ballona Creek	The Plan discusses Targeted Enforcement and potential use of Bicycle Patrol Units, and also recommends using volunteers to help increase path safety and comfort.
Ciclovias: great high visibility event, maybe also combine w/ regular bike and walk tours	Bike tours would likely be community-driven in conjunction with the work of a Mobility Coordinator, if funding is obtained.
Ciclovias: great idea. Like colors on crosswalk!	Crosswalk designs will be discussed in the design manual that will accompany the Plan.
The ciclovias is the best idea to bring about much needed drastic change for biking	Thanks.
Ed programs a MUST to create a bike/ped culture	Education is addressed in the "Programs" section of the document.
We need safe routes from Blair Hills to CCMS and CCHS	The route from Blair Hills to the bike path requires traveling though the City of Los Angeles. The City of Los Angeles is not governed by this Plan. However, Culver City is pursuing funding for a new connection to the Ballona Creek Bike Path at the Higuera St. bridge.
Program to develop bike racks as public art in partnership with the private sector (corporate funding)	The Plan doesn't include such a program; however, it will be considered.
Employer / human resources education about promoting and supporting bicycling to work (not 2nd class!)	These educational opportunities will likely have to be community-driven.
Tax incentivize bicycle friendly work places and commuters	The Plan does not recommend using local tax incentives to encourage bicycling. However, such programs might be appropriate at the state level.
Health must be stressed as a reason to make room for bikes	The Plan identifies health benefits as a reason to support bicycling and recommends a bike-to-health campaign.
Improve public transit online trip planners and combine with bike and ped trip planners online	The Culver City bus currently uses Metro's Trip Planner. Other trip planners are also available, which are increasingly combining bus and non-motorized travel (i.e. the planner available as part of Google Maps). This Plan does not propose the creation of a separate Culver City planner. However, the City will explore a permanent online presence for its bicycle and pedestrian programs, implementation efforts and other actions under the proposed mobility coordinator's supervision.
Bikerowave / Bike Kitchen / Bike Oven Do-it-Yourself bike repair shop in Culver City. Where? Who? (Volunteers) Need start up capital...	The development of such a shop would have to be community rather than City-driven.
(regarding bike co-ops) This kind of program can be self-sustaining. Just need seed $, tools etc	Same answer as previous.

Comment	Response
Master plan should say specifically list options for enhancing a bike friendly street	The Plan currently lists possible improvements to a bike friendly street. Also, the Plan will be revised so that bicycle friendly streets are only designated after improvements are made.
PAC should continue to meet AFTER the Plan is submitted. Organize more bike rides!	The PACs official role will end when the Plan is complete, but they can continue to meet informally.
Bike racks should look like bikes, like at LA Natural History Museum	The Plan recommends the inverted U bike rack design, which is the standard for bicycle parking. Other designs can be considered.
Secured bike parking as an option. Parking structures, meter space	The Plan will discuss secure bike parking further.
Bike racks: public art, private corporate funding, local business advertising	The Plan doesn't include such a program, however, it will be considered.
Add bike parking to parking lots at City Hall, Ince Structure and other lots	The Plan will discuss secure bike parking further.
Reconsider code parking requirements to allow less parking for cars and more bike parking	This recommendation will be provided to the Planning Division.
Secure bicycle parking lots in existing car parking lots or active valet parking lots / buildings	The Plan will discuss secure bike parking further.
Driver and cyclist education programs	Education is addressed in the "Programs" section of the document. Driver and cyclist education programs are discussed.
Educate directly the planning commission, City Council, and ACOR committees to improve thei awareness of bike/ped	The presentation of this Plan will provide an opportunity for the Planning Commission and City Council to learn more about bike/ped issues.
Culver City bike Registration / License no longer at P.D. Where is it? Public outreach / ads to inform	The Plan will not be recommending a license program.
Bollards on Main St. Beat Long Beach: big public art bike on City Hall	There is currently no plan or funding for public bike art on City Hall.
School drop off: enforcement (double parking, idling), and discouragement	The Plan recommends promoting alternatives to driving to school (like the Walking School Bus or Bike Trains) and also recognizes the importance of enforcement.
Big developments: city planning needs to force bike/ped facilities	The Municipal Code currently requires bike parking for such developments, but doesn't include design standards. The BPMP provides for the adoption of bike parking design standards.
Closing several east-west streets to only bikes and buses	This could be problematic for local residents who need to access their properties and difficult to enforce. Also, traffic engineering analysis would have to be conducted prior to implementation.
Slow down traffic downtown: remove lanes, traffic calming	Traffic calming can only be implemented following traffic engineering analysis, and thus has not been proposed in the Plan. However, the Downtown area will be analyzed as a part a project added to the BPMP.
Make schools a higher weight	The weighting of schools is consistent with most of the feedback we have received.

Comment	Response
Prioritize Blair Hills projects	The Plan does not directly prioritize any one area of the City above others, but instead looks at criteria such as connectivity, public input, collisions, etc.
Put sharrows on Braddock from Duquesne to Sepulveda. Braddock key connector between downtown, schools, and shopping	Shared lane markings will be evaluated for installation along Braddock.
1. Goals and Objectives ● Add goals to the plan to establish/clarify the City's long-term vision. ● The term "recommendations" is confusing; the City should include objectives and strategies that connect to the goals. ● Even if the objectives are not all accomplished in five years, this will make the plan more clear and lay out a vision for where the City wants to go. ● Examples of goals to include are: Goal #1: Increase the number of people bicycling and walking in Culver City Objective: Conduct yearly bike and ped counts at [x] number of locations. Goal #2: Increase the safety of bicycling and walking in Culver City Objective: Reduce the number of crashes (or ideally the rate, if that data is available) involving bicyclists and pedestrians	The vision statement will be revised.
2. Bicycle Pedestrian Advisory Committee ● Include as an objective in the plan the establishment of a Bicycle and Pedestrian Advisory Committee, appointed by City Council, to advise on walking and biking issues in the city. City staff from the Community Development Department, Public Works and Police Department will attend. ● Follow best practices in the structure and operations of this committee, including interviewing applicants, setting clear expectation for committee members' role and responsibilities (time/meeting commitment), involving a diverse group of stakeholders with different levels of biking and walking experiences, having the committee develop yearly priorities/workplan, etc.	The PACs official role will end when the Plan is complete, but they can continue to meet informally. The BPMP will reflect the responsibility for implementing the plan is proposed to reside with the City's Public Works Department Administration Division.

Comment	Response
3. Complete Streets Policy (page 89) ● Strengthen the language to prioritize bicyclists and pedestrians as high as autos when conducting reviews of development projects or capital improvement projects, for example, "the City's goal is to prioritize bicyclists and pedestrians, with at least the same level of priority as cars, in new construction or when retrofitting existing streets." ● A bolder approach is to say pedestrians first, then bikes, then transit, autos last. ● State in the plan that the City will voluntarily adhere to the State guidelines for how cities should comply with the CA Complete Streets Act of 2008 (AB 1358), once these guidelines are completed, even before the City updates the Circulation Element of its General Plan.	The language re: Complete Streets will be revisited in the final version.
4. Safe Routes to School (SRTS) (page 92 - 93) ● Strengthen the recommendation to include a long-term goal "to establish safe routes to school for all public schools in Culver City." ● Explain how the City will proceed with developing safe routes to schools in all Culver City public schools; "conduct an assessment of all public schools and prioritize the improvements that need to be made to encourage safe walking and biking." ● State that the City will use Linwood Howe's SRTS plan as a model for developing SRTS plans for the other schools.	The Safe Routes to School discussion will be revised in the final version.
5. Traffic Calming and Physical Improvements to Streets ● Identify intermediate and/or long-term improvement projects that will add needed traffic calming for bike-friendly streets and pedestrian-friendly streets. ● Include "develop a model bike-friendly street" as a intermediate physical project ● Include "develop a model/prototype complete street on a major boulevard" as a intermediate-term physical project ● Some of the ten "project sheets" that describe the top ten improvement projects for this five-year plan, include vague language about traffic calming, e.g. "traffic calming measures will be analyzed in the future." City should set a target for doing some/all of these traffic calming assessments mentioned in top 10 improvement projects—in this five-year period ● Create a second set of 10 "project sheets", for pedestrian and bicycle improvements so the city identifies some longer-term project improvements in this plan.	Traffic calming projects cannot be identified without traffic engineering analysis. The projects will be revised in the final version to clarify short and long term goals.
6. Evaluation ● Conduct yearly counts of bicyclists and pedestrians, at same time and location each year to measure increases in bicycling and walking. ● Include a policy/objective that the City will conduct a yearly review of bicycle/pedestrian collision reports and then establish yearly safety goals.	Additional information on evaluation will be provided in the final version of the report.

Comment	Response
7. Design Guidelines ● Include more detailed design guidelines for bikeways, bicycle-friendly streets, bicycling parking, traffic calming devices, pedestrian crossings, etc.	A separate design guide document will be produced, which will provide this information.
Landscaping?	Landscaping is not specifically addressed in the Plan.
Triple racks on bus	All City buses have dual racks.
Good idea (triple racks)	See above response.
Very important to coordinate bus & expo w/ bike + ped routes, people often want to use both on the same trip	The City is working with Expo to incorporate bike and ped amenities and links. Planned amenities include a 12 foot sidewalk and bike path along National as well as a possible Clean Mobility Center.
Some sort of directory of where bike racks are available. Include this on the bus listings/maps so people know where they can connect to	The Plan provides a map of bicycle parking downtown.
Connect bike lanes/routes with expo as well as bus lines	See above response.
It's ironic that there's no bike parking for this meeting	Bike valets were provided for the community meetings.
Secure parking facility like a "bike station" at Expo ROW or Trader Joes parking street	A Clean Mobility Center is under consideration at the Expo Station. There is currently some bike parking near Trader Joes and secured parking is under consideration at nearby Ince parking structure.
Place nice bike racks in public areas	The Plan addresses bicycle parking and the final document will discuss bicycle parking in more detail.
Generally - we need bike racks throughout the city - these could be sculptural, artistic like in New York City	See above response.
[picture of downtown racks] - example of good bike rack	See above response.
[picture of downtown racks] - yes I agree!	See above response.
[City Hall rack] - worst bike rack ever	See above response.
[City Hall rack] obviously designed by someone who doesn't own a bike	See above response.
[City Hall rack] - I agree!	See above response.
Bike racks shouldn't be kept out of sight. The bike racks at Veteran's Hall & Howard Hughes mall are terrible. T hey increase the potential for theft by being out of sight & promote creative parking like chaining bikes to street signs, trees, hand rails, etc.	Bike parking is addressed in the Plan and additional discussion is presented in the Design Guidelines.
Are there any locations that make sense for bike lockers in Culver City? Maybe vets park at Barman? Motorists use this lot as an informal park & ride, perhaps could be a bike n ride w/ lockers?	The Plan identifies the need for secure bicycle parking, and calls out parks as a potential location.
Significant outreach effort necessary for this PAC to incorporate interest of culver city's diverse communities	LACBC and the Outreach Committee conducted extensive outreach.
[picture of culver path] Love it!	Thanks for the comment.
signs posted in Spanish	This will be considered.
re-open all access gates to Ballona Creek bike path	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points.

Comment	Response
[Culver path] needs more lighting at night	Lighting is part of the Ballona Creek Bike Path Project between Overland and the Pedestrian Bridge and will be considered for other locations as budget allows.
[culver path, separated bike/ped path] great use of space for pedestrians & bikes	Thanks for the comment.
Lighting!	See above response.
re-stripe	Paths will be striped or re-striped as funding allows.
need way finders so people can locate bike access points. This would help visitors as well as residents	Way finders are being considered.
add benches and water fountains along bike paths	These will be considered as funds allow and consistent with the Municipal Code.
Extend Culver bike path all the way to down town (used to be a train right of way)	This is not currently feasible due to roadway widths.
increased maintenance of ballon path. Decrease debris & water in underpasses. Better crossings signaling on culver path, must get off bike too frequently to be useful	The Plan identifies maintenance on the Ballona Creek Path as an important issue.
easier crossing at streets for culver bike path	The major crossing points of the Culver Blvd Bike Path (within Culver City) are Sepulveda Blvd and Sawtelle Blvd and both have actuators positioned for bicyclists.
investigate opening (closed/blocked) thru routes in neighborhoods as safe contiguous routes for bikes apart from major automobile routes	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points.
[picture of culver bike path] Very good! More, more!	Thanks for the comment.
Needs more access which would increase safety, needs to be "beautified"	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points. There are various projects to "beautify" the Creek and Path, including the project near Overland Ave. and work that the MRCA is spearheading near Duquesne.
The path under the bridge is dark & unsafe, we need lights. There's also lots of trash. We need security guards or more eyes on the trail somehow to make it at least seem safer	The Plan proposes placing volunteers along the path to serve as ambassadors and provide another set of "eyes" on the area. See previous response re: lighting.
There are not enough places to enter & exit bike paths in case of emergency or potential unsafe situation	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points.
Trees please	The provision of landscaping is not part of the BPMP scope, but may be implemented on a project by project bases.
Look at visibility for in/egress at all Ballona creek path access points eg. Duquesne/bike path. Can't see pedestrians, bikes on Duquesne when exiting bike path	Changes to this area are under consideration.
There are not enough places to stop & rest or enjoy the sights.	See previous response re: benches.

Comment	Response
Need many more access points, need more security (call boxes, patrols)	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points. The Plan proposes placing volunteers along the path to serve as ambassadors and provide another set of "eyes" on the area. Also, call boxes and cameras are being added as part of the Ballona Creek Bike Project near Overland and will be considered at other locations as funding permits.
Better signs marking exits/entries so peds/cyclists know their location	The final document will discuss the Ballona Creek Path in more detail.
Camera or Lights on undrpass to protect bikes from thugs	The expanded Ballona Creek section will address safety.
For more info on Ballona Creek go to www.ballonacreek.org or contact Jim Lamm (jim.lamm@ballonacreek.org) there's a lot going on that the PAC's work could really help	No comment.
We need more north & south connectors, sepulveda is pleasant to ride on outside of Culer City, but not inside the city. I would like to see Ballon trail locked less frequently and have more entrances such as somewhere between Sepulveda and Sawtelle	There are a number of alternative streets that provide north-south connectivity, and not all of them will be appropriate for riders of all comfort levels. The Plan does not proposed additional access points to the path. The segment of the Ballona Creek Bike Path between Sepulveda and Sawtelle Blvds. is not within Culver City.
Ditto, I third this (access to Ballon between Sepulveda & Ballona)	See above response.
PM safety!	The final document will discuss the Ballona Creek Path in more detail.
Need signage along ike path about adjacent streets even if there is no direct access	Bike path signage is being considered.
plant gardens	Landscaping is not part of the BPMP scope.
Lighting!	Lighting is part of the Ballona Creek Bike Path Project between Overland and the Pedestrian Bridge and will be considered for other locations as budget allows. However, lighting must be resistant to vandalism and mus be consistent with the Municipal Code.
Agree (with lighting)	See above response.
Coordinate with LA Ballona bike path groups. I.e., landscpaping and cameras are already proposed for area by Julian Dixon Library & by Farragut Elementary School	The landscaping and cameras mentioned are a part of the Culver City Ballona Creek Bike Path Project, not LA.
Duquesne exit needs signage or traffic light to allow cyclists existing path to go left on Duquesne	Changes to this area are under consideration.
Yes (Duquesne exit remark)	See above response.
Red zone the parking (L-3) Spaces at Ballona exits to street, often can't see aroudn parked cars to easily enter or cross traffic when reach road level & not enough space to pull over prior to some gates removing parking immediately next to entries would help?	See above response.
culver city bike police patrols on path (LA side has this)	The Plan proposes placing volunteers along the path to serve as ambassadors and provide another set of "eyes" on the area.

Comment	Response
A lot of debris on Ballona bike path at this area, can it be periodically cleaned up?	The Plan identifies maintenance on the Ballona Creek Path as an important issue.
fix bumps and potholes on Ballona bike path	See above response.
Bike path access without needing to lift the bike (Duquesne). Very difficult with a bike trailer with kids inside	This issue has been addressed with recent modifications to all gates in Culver City, except at National Bl., which is currently closed do to the Exposition Light Rail Transit Project construction.
low fences at access points impede acces to trailers (with children) and strollers (and maybe some other riders)	See above response.
Coordinate with neighborhing cities to develop through routes for commuters	Alta is preparing the Master Plans for Culver City as well as the City and County of Los Angeles and efforts have been made to increase continuity of facilities across jurisdictional boundaries.
Longer times for crosssing at Ince/Washington intersection	Crossing times are being revisited per new state standards.
Unsafe bicycling conditions along Jefferson	A combination of bike lanes, routes, and Sharrows are recommended for Jefferson Blvd. as part of the proposed bike network.
More biek parking for people running errands at Rite Aid, Ralphs, Best Buy, etc	The Plan discusses the need for additional bike parking.
No Shade. NO permeable suface for ground water storage	Landscaping and permeable surfaces are not within the scope of the Plan.
Problem in the evenings at Berryman at Washington - Traffic signals do not detect the presence of bikes waiting to cross, leaving bicyclists to wait for a cr to trigger the signal.	This comment will be passed onto the traffic engineering staff.
Mentone+ Braddock - Very busy in the a.m. where cars are going to school. Very difficult to cross or riding a bike	Braddock will be improved for bicyclist safety through the addition of Sharrows, signage, and traffic calming after traffic engineering analysis.
Sine of Braddock Drive is too narrow for bikes and cars tos hare the slame lane	See above response.
Make a bike path on Elenda. Cycle Trac (washington pl to farragut dr) for school kids	Elenda is proposed for improvements on the Bicycle Network. However, a separated bike path is not feasible.
Need more bike parking downtown	The Plan acknowledges the need for additional bike parking.
Better timing of awkward crossings like this (culver & washington) you get stuck in this "no man's land" when crossing	Crossing times are being revisited per new state standards.
Crosswalk needed across Culver and Washington at Irving	There is presently a crosswalk 65' south of the intersection of Irving at Washington and Culver.
Paint Bike paths on streets & wave major city-led communication about new paths	Bike lanes are proposed as part of the bicycle network in the Plan.
North South Streets!	Bike lanes and other on street facilities are proposed for several north-south streets as part of the bicycle network in the Plan.
North South Streets! - Ditto	See above response.
North South Streets! - Triple Extra Ditto	See above response.
North South Streets! - x4!!!	See above response.
Speed up Maintenance on Ballona for closed section	The bike path was opened in July 2010.
FYI - Not for maintenance for light rail construction, be patient on this	See above response.
level uneven pavement on ballona	The Plan acknowledges the importance of maintenance.

Comment	Response
Repaint Venice Blvd Bike Lanes!!!	The Plan acknowledges the importance of maintenance. Also, note that Venice Blvd is only partially in Culver City.
Repaint Venice Blvd Bike Lanes!!! Or other bike lanes. Rough roads are not biker friendly	See above response.
create safer conditions for riding ballona @ night	The Ballona Creek Path will be discussed more fully in the final draft.
turn the path into something like a public street not an alley hidden behind	The Ballona Creek Path will be discussed more fully in the final draft.
Better lighting	The Ballona Creek Path will be discussed more fully in the final draft.
police patrol	The Plan proposes bicycle patrol units as well as Ballona Creek Path volunteers.
bike path next to expostion blvd light rail	A multi-use path is being constructed.
open all gates to Ballona Creek bike path	There aren't proposed new connections to the residential area in the Plan, as we focused on the existing access points.
more racks, everywhere	The Plan acknowledges the need for additional bike parking.
lobby city of culver city for a 100% buy in for biking in culver city	Citizens are always encouraged to attend and participate in City Council meetings.
invite sudent representitives of culver cityh high school and culver city middle school to next meeting, listeon to their ideas	The community workshop portion of the Plan has closed, though opportunities to comment on the Plan will extend until the Council approves the BPMP.
have culver bike blvd link up to other lanes and cities	The Culver Blvd Bike Path extends into the City of Los Angeles and the proposed network identifies other connections.
have culver bike blvd link up to other lanes and cities - yeah	See above response.
more car traffic awareness	Education is discussed in the Plan. However, unfortunately, it is not possible to force drivers to pay attention.
I've noteiced that several traffic signals throughout Culver City d not recognize my sitting there, on my bike, waiting and waiting for the light to change. Are they triggered by the weight of a car? I hate getting tickets for running lights on my bike! :)	Culver City follows the standard for bike loop detectors.
change law so bikers can treat stop signs as "yield."	Bicycles are not permitted to treat stop signs as yield signs under California law. That law can only be changed at the state level.
routes, with dedicated bike lanes, throu neighborhoods off main streets	The BPMP will not recommend bike lanes on residential streets. Most residential streets are not wide enough for striping bike lanes.
"routes, with dedicated bike lanes, throu neighborhoods off main streets" - yes!	The BPMP will not recommend bike lanes on residential streets Most residential streets are not wide enough for striping bike lanes.
green boxes, dedicated traffic lights for bikers to get ahead of bstart and up to speed before car traffic	Green boxes are not yet an approved facility in California, and thus are not proposed in the Plan. Bike lead times are not being considered.
education for: automobile drivers, bicycle riders, law enforcement personnel (safety, rights, responsibilities, respect)	Education is addressed in the "Programs" section of the document.

Comment	Response
contact & obtain booth at culver city's premire community event, "fiesta La Ballona" about 15,00 attend, held on august, Friday 28, sat 29, 30th on Sunday.	There is a Public Works booth at Fiesta La Ballona. Bicycle/ped information has been shared at this booth. Also, Bicycle Pedestrian Master Plan information has been shared at the Chamber Expo.
Signange: No bike, skateboards allowed in town plaza (Plaza by Pacific Culver Theater and Van Buren Pl)	The Plan recommends working with the BID on such signage.
I use the plaza and Van Buren Place throughway to get from Braddock Dr. and Irving Place. I also use the same in reverse back to Braddock even to bike the "wrong" way on the one way street behind the theater.	Wrong way and other unsafe riding is not legal.
Lots of bike racks here (Plaza by Pacific Culver Theater and Van Buren Pl)	The Plan includes a map of downtown bicycle parking.
Allow Passage through bars over bridge (Farragut Dr at Jackson Ave)	Improvements have been made to this area and further improvements are recommended in the Plan.
Lack of drought-resistant Landscape	The Plan scope does not include landscaping.
Not Wheel chair accessible as is (Farragut Dr at Jackson Ave)	Improvements have been made to this area and further improvements are recommended in the Plan.
Get Better motorized biuke barriers that allow non-motor (Farragut Dr at Jackson Ave)	See above response.
Too Narrow for bodies to go through. People poop in there (Farragut Dr at Jackson Ave)	See above response.
Decrease Height of Ped/Cross Bars so [we] can cut through with a bike (carried over); Not enough space on some sidewalks (e.g. culver, in front of sony) to walk side by side or pass with strollers	The cross bars have been addressed. The Plan does not propose increasing sidewalk widths in that area.
Need safe pedestrian way within shopping centers such as Target--connectors frion street sudwalks to stores. (Jefferson Blvd at Studio Village)	There are limited options for changing this design, since it is on private property. However, this issue will be passed on to the Planning Division with the suggestion that the City require improved pedestrian connections for future developments.
Need better pedestrian connectiong between Target parking lot and Pavillion Parking lot-- people DRIVE to get from one lot to the other because of the fence.	See above response.
No easy pedestrian ingress/egress sparce bicycle parking (Jefferson Blvd at Studio Village)	See above response.
Need bike access to Veterans Park building	On street bicycle facilities are recommended for Overland that should improve bicycle access.
Sidewalks on Jefferson -- they are too skinny, disappear; Target at la cCienega is inaccessible to walk safely on sidewalk, popular area; Raintree/etc even to fox hills, westfield condo complexes are poorly connected to Culver City Park and Downtown because of bad sidewalks on Jefferson	Jefferson Blvd is called out as a pedestrian corridor and will be examined for pedestrian improvements.
Consider little used sidewalk vs. lack of bicycling space (Washington Blvd near Robertson Blvd).	Washington Blvd. is identified as a priority project in the Plan. Also, in addition to this project, the City and Agency are pursuing other improvements to Washington Blvd funded through assessments (the Area Improvement Projects) and grants.

Comment	Response
Washington Blvd is very pedestrian unfriendly (no shade few benches, façade's uinwelcoming) Really servers to separate Helems area from downtown cc, when they should be more connected.	See above response.
Washington Blvd between Overland and Culver Blvd intercept is too narrow for bikes to be on the street. I usually use the side--walk which works when not used by pedestrian.	Where bike lanes and shared lanes are not feasible, bike route signage is recommended along Washington Blvd. Pending the update of the CAMUTCD, shared lane markings may be installed along this section of Washington Blvd. Shared lane markings instruct bicyclists how to properly position their bike as they ride on the street, particularly in areas with limited ROW.
east washington needs more sidewalks	The Plan does not address wider sidewalks on Washington Blvd.
Pretty Rough Traffic. Can I have "Share the Road" signs along this route? (Washington Blvd near Sherbourne Dr.)	Sharrows are proposed for this stretch of Washington Blvd.
Sharrows 14ft to curb (Washington Blvd near Sherbourne Dr.)	The placement of Sharrows will conform to the design standard approved for use in California.
Bike lane from CC Downtown to Helms Bakery (Washington Blvd near Sherbourne Dr.)	Sharrows are proposed for this stretch of Washington Blvd. However, the City is exploring the installation of bike lanes, east of Landmark Street, in the future.
Sharrows on Duquesne 14' from curb	The placement of Sharrows will conform to the design standard approved for use in California.
If the big streets are too busy, then people ride on the sidewalks, and these are filled with impediments like craks/debris overgrown shrubs.	The Plan addresses sidewalk riding.
I walk here weekly. Even early AM, it can be unsafe going over to the park. Important Intersection (Duqesne Ave at Ballona Creek)	The Plan will address the Ballona Creek Path in greater detail.
Shade?	The Plan mentions trees as a component of pedestrian oriented areas, but they are not a focus of the Plan.
Cyclists Heading west on Culver are very exposed where Culver and Washington Divide (near Fire Station)	The current configuration of the street network presents challenges for many bicyclists. Alternative routes have been identified to busier arterials to give options to bicyclists where infrastructure cannot provide the desired on-street facility.
street/gutters for wheels	The Plan addresses the importance of maintenance.
Looks like street cleaning day - a nice temporary safe bike route (refering to photo: Le Bourget Ave at Braddock Dr)	Thanks for your comment.
Cars travel very quickly on Braddock, not looking for pedestrians . Important area because of proximity to Carlson Park, Vets Center and Park, downtown, etc.	Braddock Drive has been identified for further analysis and with the goal of eventually being able to designate it as "bicycle friendly."
Share the Road signagnel; Cars don't share, drive too close and intimidate or insult bikers; Washington bike lane - connect it from W. Culver City to Central City and beyond.	Share the Road signage is proposed as part of the Plan. However, the Plan acknowledges the danger of sign clutter, which can reduce its effectiveness. Bike lanes, Sharrows, and other on street facilities are proposed for Washington Blvd. as the curb to curb widths and other street characteristics permit.

Comment	Response
Bike Lane (Washington Blvd at Overland Ave)	This area is of insufficient width to accommodate bike lanes.
Bike Lane on Overland	Bike lanes and Sharrows have been proposed based on road widths and other considerations (speed limit, presence of curb parking, etc.).
Need Bike Arteries - safe efficient routes for students and commuters APART from major automobile routes	The Plan proposes a network that is intended to provide choices.
Need good north/south options on Overland and Sepulveda because these are the only though streets from one end of town to the other.	Bikeways are recommended on Sawtelle, Harter, Elenda, and Huron
Need more north-south streets	Bike lanes and other on street facilities are proposed for several north-south streets as part of the bicycle network in the Plan.
Washington Blvd has more buisiness destinations I need. Venice is best used as a through way to further away location for me.	Thanks for your comment. On street bike facilities are proposed for Washington Blvd. as feasible.
I need to use Washington Blvd at times between La Cienega and Lincoln; however, the seam of black top and parking cemented area is exactly where the bke needs to run, causing a ridge or gap that is a hazard (Venice Blvd)	Washington Blvd. is identified as the top bikeway project and will be examined for places where street conditions can be improved.
Venice Blvd Bike lanes needs better surface maintenance. It is currently in poor condition-creating a safety concern and an efficiency problem.	The Plan acknowledges the importance of maintenance. Also, note that Venice Blvd is only partially in Culver City.
This bike path (Venice Blvd) works well. The shade makes it preferable to Ballona Bike Path in the AM.	Thanks for your comment.
Tip: Look in Rear View Mirror, ninted windows a problem	Thanks for your comment.
Yikes (accompanied with drawing of car opening door into Venice Blvd bike lane)	Thanks for your comment.
Would better pavement marking help protect against getting doored?	Pavement markings and facility design are not sufficient to prevent cyclists from being doored. Vigilance by drivers and cyclists is required.
Good ligiting (vandal resistant) at shadowy underpasses is key (Jefferson Blvd at Slauson Ave)	This area has been identified for a potential future project to enhance lighting.
We need more of a grid network for the roads. So I don't get on a street and have it being a "not through street" all the time.	It is not feasible to change the basic structure of the street network, whicl is built around natural elements like the creek and hills. However, the bicycle and pedestrian networks in the Plan are intended to identify routes that provide connectivity, among other things.
Blanco Park has a great through way from Kinston to Sawtell Blvd; however, it's bloked to bike and pedestrians during the day. I often need to shop at Fox Hills or Sawtelle shops	This is being examined for inclusion in the Plan.
Bike lane on Venice - repaint, repave, increase signage; "seam"/divet makes lane difficult to use	The Plan identifies maintenance on streets as an important issue. Only a portion of the eastbound Venice Bl. Bike Lane is located in Culver City and is maintained by the City.
more marked bike lanes throughout the city	The Plan proposes bike lanes on streets with sufficient curb to curb width.

Comment	Response
Sepulveda Blvd and Opverland Ave. are two busy and too narrow for bikes and cars to share the road between Jefferson and Slauson in Culver City. I usually need to use the wrong way in alley behind Sorrentos Market or alley behind CC Hardware	Sepulveda and Overland are included on the bike network. However, even with improvements not all streets will be comfortable for all riders.
Options on big streets: widen sidewalks for bike riding off the busy streets	Sidewalk riding is allowed in some areas of the City. However, the BPMP does not include any proposals to expand the sidewalks to facilitate riding.
Concerted public education campaign needed to help drivers be respectful about sharing the road with cyclist.	Education is discussed in the Plan.
Enforce parking permints on streets	This recommendation will be provided to the Police Dept.
begin "bike-bus" and "walking-bus" to take kids to and from school	These programs are suggested in the Plan.
bike lane from school to carlson park	Bike lanes are not feasible along Braddock.
Cars drive too fast on Braddock--need to slow them down (put in speed bump!)	Traffic calming will be implemented only after traffic engineering analysis deems it appropriate.
Enforce existing parking regulation on Van Buren	This recommendation will be provided to the Police Dept.
Encourage carpooling for out-of-district kids (incentives coordinator at school)	This suggestion will be considered for future Safe Routes to School grant applications.
bigger drop-off space at Irving Place Lin. Howe	Recommendations to the elementary school are a part of a separate Safe Routes to School Grant.
Bulb out makes sense for traffic calming, but a problem for bicyclists (Irving Bl at Braddock Dr. and Irving Pl at School St.)	Both bicycle and pedestrian impacts are considered before recommending bulb outs.
How do you legall go on this street? Go wrong way? Ride on Sidewalk? (Irving Pl at School St).	Bicyclists are required to obey all traffic laws, including following the flow of traffic
Needs share road signage for cyclists. Needs diverters like Bike Blvds and sharrows (Higuera at Carson St.)	The Plan proposes Share the Road signs and Sharrows at appropriate locations.
Discourage cars on Ince, or close Ince at Washington	Traffic calming will be implemented only after traffic engineering analysis deems it appropriate.
Traffic Calming is useful--generally but these aren't appropriate bike routes/too much parking and slim streets	See above response.
Can we encourage cars down different street than Lucerne? It's already narrow and maybe made more bike friendly. No left turn from Culver?	Lucerne is an important connection between East Culver City and Downtown. It will feature recommendations that help make it safer for bicyclists and motorists to use simultaneously.
If this is always no parking (refering to one side of Lucerne Ave between Ince and Higuera Sts), it's a good bike zone and could be marked as such.	See above response.
Lucerne and Higuera has 1700 car's per evening peek and 1900 cars per morning bike's and car's will fight for right and away	These totals are very low for residential streets, and as such support identifying it as a street that bicyclists can use if they are uncomfortable on streets with higher traffic volumes.
need lots of bike racks at new metro station	See previous response re: Expo bike parking.
Safe Corridor (pointing to Venice and Jefferson to Main and Culver	Thanks for your comment.

Comment	Response
Suggested route to bypass Downtown area: From 10 fwy and Washington, South on Washington, to Higuera to Lucerne to Duqesne to Jefferson.	Thanks for your comment.
Irving Pl (one way) hilighted	Irving is included in the Bicycle and Pedestrian networks.
Braddock Dr, hilighted	Braddock Drive is included on the Bicycle and Pedestrian network.
Need to add ped bridge to map at Westwood to Culver city HS.	Maps will be updated in the final version of the document.
Close Higuera off from being a through street. Divert traffic from east bound north to Hayden Pl. and westbound north to Hayden Ave	Traffic calming will be implemented only after traffic engineering analysis deems it appropriate.
Rotary Circles at Krueger, Hubbard and Carson on Higuera.	See above response.
Sawtelle between Havelock and Utopia (not in Culver City) marked with X	The Plan only covers the City of Culver City.
Connect Washington Blvd Bike Path to Downtown CC (meanning Culver?)	There is currently no bike path on Washington Blvd. The portion of Culver Blvd. that does not have a bike path is recommended as a bike route.
Circle around National bridge over Ballona Creek, asking "When will this open?"	The northern National bridge is temporarily closed for construction for the Exposition Light Rail Transit Project and should be reopened sometime in 2011.
hilighted streets: National from the Expo Line departure east to Wesley St-E to Rode Rd, S on Carson W to Ince	National is included on the bicycle network.
Jefferson between Hitzler Rd and Culver City Park Rd: No Sidewalk	Jefferson Blvd is a pedestrian corridor and includes the recommendation of pedestrian facilities, including sidewalks.
Westly is too Crowded; Lucerne going west from Higuera is unsafe. No sidwalk on Jefferson between Hitzler Rd and Park	Wesley is busy at school pick up and drop off times, and otherwise features very low traffic volumes making it an ideal street to ride on most times of day. Lucerne features recommendations to make bicyclists position on the road more prominent, making it easier for motorists and bicyclists to use the road simultaneously.
No room on Jefferson for Bike and car. Bikes need to ride on sidewalk.	A combination of bike lanes, routes, and sharrows are recommended for Jefferson Blvd. as part of the proposed bike network.
I commute along Jefferson from Sepulveda to Downtown LA. Would be good to put in bike lane on northboud side and fix pavement. Southbound complete construction.	See above response.
Playa, Washington, Sepulveda, Overland are too: scary, polluted, badly maintained to ride on regular basis (commute).	The Plan addresses the importance of maintenance. The purpose of the network is to provide options and alternative routes to cyclists. There are a number of alternative streets that provide connectivity, and not all of them will be appropriate for riders of all comfort levels.
show bridge, Ralphs, and Target	The map will be revised in the final version.
Connect Hannum to bikes only	Assuming the commenter meant the cul-de-sac at the northerly side of the "T" intersection of Hannum Ave. and Playa St., this was added to the BPMP as a potential project depending on the availability of staff and funding.

Comment	Response
Berryman Ave and Washjington. Safe to cross Washington at light. North Bound now blocked b Right Lane Turn Only sign	This intersection is proposed to receive some modifications in conjunction with a new traffic signal being installed at the Washington Bl./McLaughli Ave. intersection. Installation of striping and signage to allow cyclist to proceed north through the intersection will be considered as a part of the project.
Note: The Sepulveda Shoping Area is a destination with small business like hardware store and staples	Thanks for your comment.
Difficult to cross Washington and Mclaughlin Ave	A new traffic signal is being installed at the Washington Bl./McLaughlin Ave. intersection.
Route car traffic to Venice Blvd, around Culver City Downtown	The Plan does not propose rerouting traffic or traffic calming. Traffic calming will only be proposed following traffic engineering analysis.
Hilighted Streets: Overland Ave, Sepulveda, Sawtelle Blvd, Berryman Ave, Mclaghlin/Centinela (North/South arterials)	Bike lanes and other on street facilities are proposed these streets, except portions of Berryman Ave., as part of the bicycle network in the Plan.
Need North and South Route	See above response.
Welodrome - WLAC: track racers and fitness fun	The Plan does not propose any velodromes. West LA College is outside the City's boundaries.
Would like to see safe bike path along all of Jefferson	There is insufficient right of way for a bike path. A combination of on-street facilities are proposed for Jefferson in the bicycle network.
Need safe access for bikes coming from the south of Culver City on Sepulveda, Only route into city.	Sepulveda is recommended as a bike facility and will accommodate bicyclists to the greatest extent possible.
Open up south/east side of Ballona Creek to bike path to create a loop within Culver City, for bike exercise and training, bridges at either end. Open gates on both sides, at Jackson Ave, Baldwin Ave, Madison Ave, and Van Buren Ave	The Plan does not propose additional bridges or access points. The BPMP has been revised to include a more detailed discussion of the Ballona Creel Bike Path, including the potential for a separate walking path along the southside of the Creek, between Higuera St. and the Pedestrian Bridge west of Overland Ave.
Circled Farragut and Jackson Ped "jail" facility.	Improvements have been made to this area and further improvements are recommended in the Plan.
Ballona Creek Problem Area - more dangerous for runners and bikers Also last week, I saw a motorcycle on the bike path. Needs supervision.	The Plan addresses perceived safety concerns and proposes placing volunteers on the Ballona Creek Path.
Hayden Ave and Higuera St circled	Higuera will be discussed further in the final version of the document.
1) Bike Path Maitnentnace - lights; 2) North-South Routes; 3) Driver Awareness - courtesy; 4)Bike Racks - e.g. At Vets Auditorium	The Plan acknowledges the importance of maintenance and bike racks, and proposes north-south routes and an education program.
I would like a bike path next to the Exposition Blvd. light rail line	A multi-use path is being constructed.

Comment	Response
The CC Redev agency has just approved building islands on West Washington Blvd. This will narrow the street and limit a bike path on Washington Blvd. Alta's website talks about a bike path in the center of the street in SF tahat is in the middle of the islands - we also need storm water (TMDL's control) filtration along the curbs so all of these need to be incorporated before things are built	The proposed medians are not large enough to accommodate bike paths.
Ensure landscaping utlizes drought-tolerant, native plants wherever possible (unlike CALTRANS which used only H20-friendly plants not native to NoAmerica for the Culver Blvd. paths).	Landscaping is not part of the BPMP scope.
I will volunter for bike counts	Volunteers will continue to be needed for follow up counts after the Plan is adopted.
Bike path lighting hopefully could use solar energy for power and powe/storage (cloudy days/night)	This will be explored, thank you.
More Access points from La Ballona Creek to streets; publicize website that will create routes for bicyclists (I will send it in for LA and Orange Co. I believe)	The Plan does not propose additional access points to residential areas.
Ballona Creek has two banks in Culver City between Sawtelle and Duquesne: One side is developed as a bike path; Too dangerous to have bikes and pedestrians on the same path; Developing other side as a pedestrian path should be considered; Pedestrian path can be developed as an Art Walk with public sculpture such as the harbor in San Diego; Make Art Walk a destination as part of Culver City's redevelopment	The BPMP has been revised to include a more detailed discussion of the Ballona Creek Bike Path, including the potential for a separate walking path along the southside of the Creek, between Higuera St. and the Pedestrian Bridge west of Overland Ave. Development of improvements along the Creek must comply with the Municipal Code.
Make PEDESTRIAN WALK WAY/ART WALK into "front yard" rather than "back alley": Have businesses: cafes, restaurants; Have lights; More use will decrease "Attractive Nuisance" tendency, such as graffiti, gang activity; Make it more appealing a place to exercise, jog, e.g. park development along Hudson River in NYC, Battery Park and San Diego Harbor Area.	See above response.
Schools, including El Marino and El Rincon are adjacent to parks used for afterschool activities, sports practice and camps during school breaks and summer. They are difficult to access as a pedestrian or cyclist; Need crosswalks on main roads to facilitate pedestrian access; Flashing crosswalks would provide a safer environment; Longer lights at key intersections and no right on red would also make it safer for pedestrians.	This suggestion will be passed on to traffic engineering staff and these suggestions will be considered in future Safe Routes to Schools applications.
Flashing crosswalks would provide safer crossing at: Ballona Creek Bike Path at Sepulveda Blvd.; Sepulveda near the ice rink and the YMCA; Ballona Creek Bike Path at Sawtelle Blvd.; Ballona Creek Bike Path at Overland; Hayter Ave. and Sawtelle Blvd.; Overland near the Adult School and Julian Dixon Library	There have been signals proposed at Blanco/Hayter, but they have not been installed due to community opposition.
Longer red lights and no turn on red in all directions at Braddock and Sepulveda	This suggestion will be passed on to traffic engineering staff.
Example of properly working pedestrian controlled red light: Light at the corner of Lindblade and Sepulveda	Thanks for your comment.

Comment	Response
I think its terrific the [physical project] is being proposed and I would love to see it extending to and around the high school - it would make sense for high school students to be able to safely cycle to school - at present I see people using the sidewalks rather than risk the busy streets	Lucerne, Braddock and Farragut are all recommended bikeways which will allow better bicyclist access to the High School.
La Ballona Creek path which is wonderfully direct but at present not safe enough to send our children onto alone	The Plan recognizes safety concerns along the Creek and proposes some solutions.
I love taking Ballona bike path from Overland Ave down to Centinela Ave. The path is a little rough, and feels unsafe at night. But I usually ride there only in the morning. My biggest concern is that theres no bike path down Overland Ave to Jefferson Blvd. I truly believe that a bike path and some newly painted lanes would increase the appeal of Overland Ave. Also it would increase the amount of safety for those who chose to ride bicycles to help the environment.	The Plan does not propose a bike path for Overland, but on-street facilities are being proposed.
Today I was nearly run over trying to cross Jefferson Blvd at Machado Road. Returning from Pavilions, I waited for the walk signal. However, once I stepped into the crosswalk, I could see I was taking my life in my hands. Cars turning North on Jefferson, including two cars from the shopping area and two from Machado Lane, would have run me over if I hadn\'t gotten back on the sidewalk. We need a four-way red light at this corner so that pedestrians can cross Jefferson safely!	This suggestion will be passed on to traffic engineering staff.
Green the Ballona Bikeway to include trees	Landscaping is not part of the BPMP scope.
I live in Culver City and would love to see bike lanes/trails available in the city. I live so close to the beach but yet so far considering that I don\'t have a bike lane when riding to the beach. I barely ride my bike anymore in the Culver City area because it is so dangerous...	Bike lanes are available on Venice Blvd. and proposed for Washington Place, and segments of Washington Bl. Also, Ballona Creek Path and Culver Bike Path, via McConnell Ave., provide connectivity to the beach.
I\'d like to preface by saying that I hold no grudge against any particular police officer. I was riding home from dinner with my girlfriend, travelling south on Centinela. We were just north of Culver City, when I was pulled over by a CC police officer and cited for CVC 21202, for riding tw abreast. What I did was legal, Culver City even specifically permits me to ride two abreast. I just wish your officers knew this. Since then, I\'ve avoided your city like the plague. Please educate them.	Depending on the situation, CVC 21202 may be interpreted to prohibit riding two abreast. CCMC 7.04.230 explicitly prohibits riding more than two abreast (except on paths or parts of roadways set aside for the exclusive use of bicycles), but that does not mean it allows cyclists to ride two abreast when that is in conflict with other state or local code sections relating to cyclists position on the road. The Plan recommends education on both the rights and also the responsibilities of cyclists.
It would be great to have more safe ways toaccess the Ballona Creek bike path. With two of the busiest streets in the city,Sepulveda and Slauson,I\'ll be adding a bright orange safety vest to my cycling wardrobe. From Fox Hills I usually take Slauson to McDonald t/l,to Inglewood Bl.,and catch B.C. bikepath there.	The Plan does not propose additional access points.
Culver city needs well defined bikeways, wide strips of pavement (like the beachwalk) that is designated only for cyclists. I have seen them used to great effect in Irvine and Davis, so why not Culver city? Have them run along the creeks or maybe in the center of some of the larger roads	The Ballona Creek Path runs adjacent to the creek and the Culver Bike Path runs adjacent to portions of Culver Blvd. However, there is not currently sufficient right of way to add bike paths along other large roads.

Comment	Response
I am a middle-aged lady who rides largely within Culver City--to the store, to church, to restaurants. The problem is Jefferson, where cars line the road and the traffic whizzes past--and the sidewalk at points is either non-existent or too narrow. If the 2 small bridges over Bellona Creek (just west of Duquesne)could be opened to connect Jefferson to the bike path, that would be a vast improvement. It would also allow cyclists easy access to West LA College via the new entrance.	The Plan recommends bike facilities and ped facilities along Jefferson making it a better road for bicyclists and pedestrians to use. The two structures crossing the Creek, west of Duquesne Ave., are for utilities and not bridges.
I usually walk to work but during summers it really gets too hot. Having more trees along the sidewalks would certainly help.	The Plan mentions trees as a component of pedestrian oriented areas, but they are not a focus of the Plan.
I am a planning analyst for UCLA Transportation. I would like to spread the word about the Culver City Bike/Ped Initiative, as many of our employees live around Culver City. We have an upcoming Bike to Campus Week Event, where I think tabling any flyers regarding the Initiative may be useful. If you would like to provide anything, please feel free to email me.	Thanks for your offer.