



Agenda Item #: _____

Staff Report

City of Manhattan Beach

TO: Honorable Mayor Wilson and Members of the City Council

THROUGH: Geoff Dolan, City Manager

FROM: Richard Thompson, Director of Community Development
Rob Osborne, Management Analyst

DATE: January 4, 2005

SUBJECT: Consideration of the City Council's 2004-2005 Work Plan Item Regarding Creation of a Citywide Bikeway System

RECOMMENDATION:

It is recommended that the Council discuss this issue and approve a City-wide bikeway system.

FISCAL IMPLICATION:

There is no cost associated with approving a City-wide bikeway system. Installation of signage to designate bike routes throughout the City, as recommended by the PPIC, would cost approximately \$4,000. The Public Works Department has indicated that the labor could be provided through existing programs & budgets. The materials cost of approximately \$4,000 could be appropriated from the Council Contingency Fund. Approving a bikeway plan would make the City eligible to pursue grant funding for bicycle-related projects.

BACKGROUND:

The City Council's 2004-2005 Work Plan includes a task to determine if a City-wide bikeway system should be implemented in Manhattan Beach. Staff compiled a variety of information regarding such systems and presented it to the Parking and Public Improvements Commission for consideration at public meetings on October 28 and November 30, 2004.

DISCUSSION:

A "Bikeway" is defined as a facility that provides primarily for bicycle travel. There are three types:

Class I Bikeway (Bike Path) - A completely separated right of way for the exclusive use of bicycles and pedestrians with minimized crossflow, such as the pathway through the City west of the Strand. State guidelines require a width of at least eight feet for two-way bicycle movement.

Class II Bikeway (Bike Lane) - A striped lane for one-way bike travel on a street or highway. The minimum width required is four feet where there is no curb parking and five feet adjacent to curb parking.

Class III Bikeway (Bike Route) - Provides for shared use with pedestrian or motor vehicle traffic with design criteria and uniform symbols. No minimum widths are required, but routes should only be designated after considering such factors such as surface condition, obstructions, curb parking, and connections to other bikeways.

Bike Paths are preferred for greatest overall safety and efficiency, but are difficult to achieve in built-out cities. Bike lanes provide generally safer riding conditions than Bike Routes, but require a dedicated area on the street. Bike Routes require the least amount of right-of-way and have fewer design requirements. The complexity of implementing a bikeway system can range from installing a number of “Bike Route” signs up to major capital improvement projects involving land acquisition and construction of off-street paths.

General Plan Issues

The City’s General Plan includes several bicycle-oriented policies, including the following:

- Goal 6: Create well-marked pedestrian and bicycle networks that facilitate these modes of circulation.
- Policy I-6.6: Incorporate bikeways and pedestrian ways as part of the City’s circulation system where safe and appropriate to do so.
- Policy I-6.7: Encourage features that accommodate the use of bicycles in the design of new development, as appropriate.
- Policy I-6.8: Encourage the development of Bikeways to link recreation areas and schools.

The only Bikeway designated in the City’s General Plan is The Strand Bikeway. If the City adopts a Citywide Bikeway Plan, several grant programs may become available for funding bicycle-related projects.

Traffic Engineer Findings

As described in detail in the attached report, the Traffic Engineer evaluated the possibility of creating a bikeway system in Manhattan Beach. Based on various criteria analyzed he suggested a preliminary system that could be considered for implementation. As the system is comprised almost entirely of bike routes, its primary function would be to identify the more bicycle-friendly and appropriate streets throughout the City and encourage their use. The suggested system is as follows:

Street	Type
Valley Drive - Citywide	Route (southbound)
Ardmore Avenue - Citywide	Route (northbound)
Highland Avenue - Citywide	Route

Manhattan Avenue - Manhattan Beach Blvd. to 1 st St.	Route
Highland Avenue - Citywide	Route
Rosecrans Avenue - Strand to Aviation Blvd.	Route/Lane
Marine Avenue - Sepulveda Blvd. to Aviation Blvd.	Route/Lane (westbound)
Pacific Avenue - Rosecrans Ave. to 5 th St./Ardmore Ave	Route
Redondo Avenue - Marine Ave. to Manhattan Beach Blvd.	Route
Peck Avenue - 2 nd St. to Artesia Blvd.	Route
2 nd Street - Ardmore Ave. to Peck Ave.	Route
The Strand - Citywide	Existing Path

The following streets have been identified as potential future bike lanes in the Coastal Corridor Transportation Study conducted by the South Bay Council of Governments:

Street

- Sepulveda Boulevard - Citywide
- Manhattan Beach Blvd. - Citywide
- Artesia Blvd. - Citywide

Other Departments Comments

The Traffic Engineer's suggested system was reviewed by a team comprised of staff members from the Police, Parks & Recreation and Public Works Departments. Comments received were as follows:

- With the City being essentially built out, there are limits on what can be done in implementing bikeways. Realistically there are no places to add bike paths and few if any areas with room to designate striped lanes. Emphasis should be on identifying bike routes.
- Safety must take precedent over enhancements to the transportation system.
- Removing parking to accommodate bike facilities is not appropriate in Manhattan Beach.
- The Public Works Department does not have any significant budget/maintenance concerns about installing signage for bike routes or limited striping & signage for bike lanes.
- The Police Department is opposed to creating bike lanes on Sepulveda Blvd. or Manhattan Beach Blvd. because of safety concerns related to high traffic volumes.
- The Police Department questions if Highland is an appropriate route because of its close proximity to The Strand bike path and high traffic/pedestrian activity.
- There are no significant enforcement-related concerns, although some form of driver education would be useful if striped lanes are created.

- The Parks & Recreation Department feels the suggested system provides reasonable access to major recreational facilities.

PPIC Review

As stated previously the PPIC reviewed this issue at public meetings on October 28 and November 30, 2004. They are generally supportive of the proposed system, with several modifications. They feel few if any City streets are wide enough to accommodate marked lanes, so any initial City-wide system should include only bike routes. They are also opposed to designating Highland Avenue as a bike route because of its high pedestrian and traffic activity. They have similar concerns about Sepulveda and Manhattan Beach Boulevard but suggested these streets be considered as potential future routes in deference to the Coastal Corridor Study.

They voted (3-0, Osterhout & Ackland absent) to recommend approval of an initial bikeway system as follows:

Street	Type
Valley Drive – Citywide	Route
Ardmore Avenue - Citywide	Route
Highland Avenue - Rosecrans to 45 th Street	Future Route
Manhattan Avenue - Manhattan Beach Blvd to 1 st Street	Route
Rosecrans Avenue - The Strand to Sepulveda Blvd	Route
Marine Avenue - Sepulveda Blvd to Aviation Blvd	Route
Marine Avenue - Pacific Avenue to Sepulveda Blvd	Future Route
Pacific Avenue - Rosecrans Ave to 5 th Street/Ardmore Ave	Route
Redondo Avenue - Marine Ave to Manhattan Beach Blvd	Route
Peck Avenue - 2 nd Street to Artesia Boulevard	Route
2 nd Street - Ardmore Ave to Peck Ave	Route
Sepulveda Blvd – Citywide	Future Route
Manhattan Beach Blvd – Citywide	Future Route
Artesia Blvd. - Citywide	Future Route

This recommended system is illustrated in the attached map. The Traffic Engineer has no objection to the modifications made by the Commission.

CONCLUSION:

The bikeway systems suggested by the Traffic Engineer and the PPIC are strictly conceptual at this point. Should the Council decide to approve a system, staff would report back at a subsequent meeting with further analysis regarding issues such as alternatives for implementation, possibilities for obtaining grant funding and General Plan implications.

The Los Angeles County Metropolitan Transportation Authority (MTA) and South Bay Cities Council of Governments (COG) are currently working to develop a county-wide bicycle

Agenda Item #: _____

transportation strategic plan. Staff will work with these agencies to ensure that any system considered for Manhattan Beach is consistent with the county-wide plan. The next MTA/COG Plan workshop will be held in Torrance on January 13, 2005.

- Attachments:
- A. PPIC recommended bikeway system
 - B. Excerpt from PPIC minutes of 11/30/04
 - C. PPIC report dated 11/30/04, with attachments

City-wide Bikeway Plan

As Recommended by the P. P. J. C.



0 0.25 0.5 1 Miles

12/21/04



2. Citywide Bikeway System

Traffic Engineer Erik Zandvliet presented the staff report, explaining that on October 28, 2004, the Commission reviewed the initial evaluation of some possible bikeways for adoption as a Citywide Bikeway System and directed staff to gather additional information from other departments and surrounding cities. Indicating that staff forwarded the evaluation to the cities of El Segundo, Redondo Beach, Hermosa Beach and Hawthorne, local schools, the school district, and all City departments, Traffic Engineer Zandvliet reviewed the comments obtained from these entities as well as the street segments being proposed for the Citywide Bikeway System.

Commissioner Lesser commented that he would have liked to see more of an analysis done on school routes and how they relate to what is being proposed under the Bikeway System. Traffic Engineer Zandvliet verified that staff did forward the proposal to school representatives but the City did not receive back any comments, adding that staff's intent of the Bikeway System is to accommodate schools whenever possible.

Audience Participation

None.

Discussion

Commissioner Lang stated that the information compiled provides a tremendous piece of analysis on the City's street segments. He then spoke of his concerns with the proposed designation of bike routes/lanes on Highland Avenue, Manhattan Avenue, Rosecrans Avenue and Marine Avenue (west of Sepulveda), noting current traffic congestion and safety concerns. Commissioner Lang added that he would also be opposed to any future consideration of bike lanes on Manhattan Beach Boulevard, Artesia Boulevard and The Strand.

Commenting that each member of the Commission may have different opinions on each street being proposed, Commissioner Lesser stated that he would like to see this proposal move forward to the City Council with the understanding that it represents a "skeletal" proposal of a concept that is supported by the Commission for consideration of grant funding.

Chairman Saunders suggested that the Commission review each street segment to try to reach a consensus on moving the proposal forward to City Council. Chairman Saunders stated that he is concerned with the designation of bike lanes as they may interfere with traffic flow on collector streets and that he rather have just bike route designations.

The Commission then discussed each suggested street segment. It was agreed upon that few if any City streets are wide enough for marked lanes, so the emphasis should be on routes. The Commission reached a consensus on an initial system as follows:

Valley Drive	Bike Route
Ardmore Avenue	Bike Route
Highland Avenue(Rosecrans to 45 th Street)	Future Route
Manhattan Avenue (Manhattan Beach Blvd to 1 st Street)	Bike Route
Rosecrans Avenue (The Strand to Sepulveda Blvd)	Bike Route
Marine Avenue (Sepulveda Blvd to Aviation Blvd)	Bike Route
Marine Avenue (Pacific Avenue to Sepulveda Blvd)	Future Route
Pacific Avenue (Rosecrans Ave to 5 th Street/Ardmore Ave)	Bike Route
Redondo Avenue (Marine Ave to Manhattan Beach Blvd)	Bike Route
Peck Avenue (2 nd Street to Artesia Boulevard)	Bike Route
2 nd Street (Ardmore Ave to Peck Ave)	Bike Route
Sepulveda Blvd – Citywide	Future Route
Manhattan Beach Blvd – Citywide	Future Route
Artesia Blvd. - Citywide	Future Route

Action

A motion was MADE and SECONDED (Lesser/Lang) to recommend approval of a bikeway system as outlined above.

AYES: Lesser, Lang, Chairman Saunders
 NOES: None
 ABSENT: Ackland, Osterhout
 ABSTAIN: None

CITY OF MANHATTAN BEACH

DEPARTMENT OF COMMUNITY DEVELOPMENT

TO: Parking and Public Improvements Commission

FROM: Richard Thompson, Director of Community Development
Robert D. Osborne, Management Analyst

BY: Erik Zandvliet, Traffic Engineer

DATE: November 30, 2004

SUBJECT: Citywide Bikeway System

BACKGROUND:

The City Council's Annual Work Plan includes a task to determine if and where bikeways should be designated on the city's streets. On October 28, 2004, the Commission reviewed the initial evaluation of some possible bikeways for adoption as a Citywide Bikeway System and requested staff to gather additional information from other departments and surrounding cities. The initial evaluation was sent to the Cities of El Segundo, Redondo Beach, Hermosa Beach and Hawthorne for their comments. It was also sent to the local schools and school district, as well as all City departments. This report includes comments obtained by these entities.

DISCUSSION:

"Bikeway" means all facilities that provide primarily for bicycle travel. There are three types of bikeways:

1. Class I Bikeway (Bike Path). Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.
2. Class II Bikeway (Bike Lane). Provides a striped lane for one-way bike travel on a street or highway.
3. Class III Bikeway (Bike Route). Provides for shared use with pedestrian or motor vehicle traffic with design criteria and uniform symbols.

Bike Paths are preferred for greatest overall safety and efficiency, but off-street paths are difficult to achieve in built-out cities. Bike lanes provide generally safer riding conditions than Bike Routes, but require a dedicated area on the street. Class III Bike Routes require the least amount of right-of-way and have fewer design requirements. Construction costs can be as little as a few "Bike Route" signs up to tens of thousands of dollars to acquire land and build off-street Bike Paths.

While designating Bikeways along routes with existing bike volumes is one method, it has also been found that Bikeways along new alignments will also encourage new or expanded bike use.

It is important that the Bikeways have connections and do not terminate without reaching a destination or another Bikeway so the bicyclist is not stranded in an area hostile to bicycles.

Bikeway System Guidelines

There are many factors to consider when determining if and what type of Bikeway is appropriate for a particular corridor. Among some of the more common parameters are:

- Existing or Projected Bicycle Volume
- Vehicular Volume
- Number of Vehicle Lanes
- Roadway width
- Curb Parking
- Regional and Local Destinations
- Recreational Venues
- Common Commuter Routes
- Collision History
- Surrounding Land Use
- Bicyclist Visibility
- Proximity to Roadway Hazards
- Location of existing Bikeways and bike facilities

Due to the high cost of street reconstruction, candidate streets and areas should be wide enough to accommodate Bike Lanes or Bike Routes within the existing roadway. Commuter and recreational factors should be emphasized, so that the Bikeways serve the user. Since the City is essentially built-out, Bike Lanes and Bike Routes would be more appropriate and feasible than Bike Paths. The system should complement the existing and proposed Bikeways designated within the South Bay Region. For example, there is a planned bikeway for the unused Southern Pacific railroad right-of-way in El Segundo north of Rosecrans Avenue and east of Sepulveda Boulevard. Also, an existing Bike Path stretches along The Strand through Hermosa Beach, Manhattan Beach and El Segundo. The City of Redondo Beach has an existing Bikeway Plan.

The City's General Plan includes several bicycle-oriented policies, including the following:

Goal 6: Create well-marked pedestrian and bicycle networks that facilitate these modes of circulation.

Policy I-6.6: Incorporate bikeways and pedestrian ways as part of the City's circulation system where safe and appropriate to do so.

Policy I-6.7: Encourage features that accommodate the use of bicycles in the design of new development, as appropriate.

Policy I-6.8: Encourage the development of Bikeways to link recreation areas and schools.

The only Bikeway designated in the City's General Plan is The Strand Bikeway. Once a Citywide Bikeway Plan is adopted, several Grant programs become available for funding bicycle

projects. Often a Citywide Bikeway Plan or inclusion in a Countywide Bikeway Plan is a prerequisite for these funding programs.

The California Supplement to the Manual of Uniform Traffic Control Devices has specific guidelines for the installation of Bike Lanes and Bike Paths. Bike Lane guidelines generally require a minimum width of four feet (4') where there is no curb parking and five feet (5') adjacent to curb parking. Bike Path guidelines require at least eight feet (8') for two-way bicycle movement. Bike Routes do not have specific minimum widths, but should only be designated after considering such bicycle sensitive factors such as surface condition, obstructions, curb parking, and connections to other Bikeways.

Bicycle collisions were studied in a six-year period between January 1, 1995 and December 31, 2001 to identify any high collision locations. The majority of collisions occurred along proposed bikeways. The highest collision rate was on Manhattan Beach Boulevard between Highland Avenue and the Pier. A map is attached that identifies all bicycle collision locations.

Staff compiled a list of 10 candidate streets that may be designated as Bikeways. Narrow and discontinuous streets were not considered. These locations are not prioritized and are only to be used as a starting point for creating a Citywide Bikeway System. A discussion of each street in no particular order is provided below.

1. Valley Drive

Valley Drive is a two-lane residential collector street in a mixed commercial-residential area with a volume of 4,500 to 7,900 vehicles per day. It is a one-way street between 15th Street and 1st Street. The street is generally 32 feet wide with parking on one side. This street width would permit designation of a one-way Bike Route with two existing lanes and curb parking on one side, or two-way Bike Lanes with two existing lanes and no curb parking along its entire length. Most side streets are stopped along Valley Drive with one signalized and some stopped intersections. If used in conjunction with Ardmore Avenue, a one-way Bike Route couplet could be created to connect the southeast end of the proposed Bike Path in El Segundo with the beach and shopping destinations in Downtown. In the future it could possibly provide access under Sepulveda Boulevard to the Manhattan Village mall. Live Oak Park, the Civic Center, and Robinson Elementary School are also along this alignment. It could also provide a continuous Bikeway through the City into Hermosa Beach. If Bike Lanes are designated instead of Bike Route signs only, then southbound Ardmore Avenue/northbound Valley Drive markings are preferred due to significantly fewer cross streets to be negotiated by the bicyclist. As an alternate, a Bike Path could be designated within the Veterans Parkway in a meandering design or along either street. Due to topography changes, a Bike Path along either edge of the Parkway would be considerably more expensive than in the center, but there would be more pedestrian/bicycle conflicts with parallel Bike/Pedestrian facilities. Also, pedestrians may prefer to use the Bike Path instead of the unpaved pedestrian path for walking and running, which would decrease both bicyclist and pedestrian safety.

2. Ardmore Avenue

Ardmore Avenue is a two-lane residential collector street in a mixed commercial-residential area with a volume of 3,200 to 6,700 vehicles per day. It is a one-way street between 15th Street and 2nd Street. The street is generally 30 feet wide with parking on one side. This street width would permit designation of a one-way Bike Route with two existing lanes and curb parking on one side, or two-way Bike Lanes with two existing lanes and no curb parking along its entire length. Most side streets are stopped along Ardmore Avenue with some signalized and stopped intersections. See Valley Drive for similar conditions.

3. Highland Avenue

Highland Avenue is a two-lane collector street in a mixed commercial-residential area with a volume of 7,500 to 26,500 vehicles per day. The street is generally 39 feet wide with parking on both sides. It goes directly through Downtown. The street width would permit designation of a two-way Bike Route with two existing lanes and curb parking on both sides, or two-way Bike Lanes with two existing lanes and curb parking on one side along its entire length. Most side streets are stopped along Highland Avenue with some signalized and stopped intersections. This street would provide a parallel bikeway to The Strand in a north-south direction. It would link the downtown commercial area, civic center and North End commercial area with other recreational uses and bikeways.

4. Manhattan Avenue – Manhattan Beach Boulevard to 1st Street

Manhattan Avenue is a two-lane collector street in a mixed commercial-residential area with a volume of 9,800 vehicles per day. The street is generally 50 feet wide with parking on both sides between Manhattan Beach Boulevard and 1st Street. The street width would permit designation of a two-way Bike Lane with two existing lanes and curb parking on both sides south of the diagonal parking zone and a two-way Bike Route with two existing lanes and curb parking on both sides through the downtown. Most side streets are stopped along Manhattan Avenue along with some stopped intersections. This street would provide a parallel bikeway to The Strand in a north-south direction. It would link the downtown commercial area center with other recreational uses as well as Hermosa Beach to the south.

5. Rosecrans Avenue – The Strand to Sepulveda Boulevard

Rosecrans Avenue is a three to four-lane minor arterial street in a residential area with a volume of 17,500 to 20,000 vehicles per day. The street is generally 84 feet wide between Highland Avenue and Sepulveda Boulevard with a center left turn pocket/medians and parking on the south side. The street width would permit designation of a Bike Route on the south side and a Bike Lane on the north side with four existing through lanes and no curb parking on the north side within in the City of El Segundo. All side streets are stopped along Rosecrans Avenue along with the exception of three signalized intersections. This street would provide an east-west bikeway through the north end of the City and connect the planned Bike Path along the RR easement in El Segundo to the beach in the west. It would link Sepulveda Boulevard with other business and recreational uses along the beach via Highland Avenue and The Strand.

6. Marine Avenue – Sepulveda Boulevard to Aviation Boulevard

Marine Avenue is a four-lane minor arterial street in a mixed commercial-residential area with a volume of 20,500 vehicles per day. The street is generally 76 feet wide between Sepulveda Boulevard and Aviation Boulevard with a center left turn pocket/medians and parking on both sides. The street width would permit designation of a Bike Route on the south side and a Bike Lane on the north side with four existing through lanes and no curb parking adjacent to Manhattan Village. All side streets are stopped along Marine Avenue with the exception of five signalized intersections. This street would provide an east-west bikeway through most of the City. It would link Sepulveda Boulevard with other recreational uses such as Marine Avenue Park, AdventurePlex and the Youth Sports Complex.

7. Pacific Avenue – Rosecrans Avenue to 5th Street/Ardmore Avenue

Pacific Avenue is a two-lane major local street in a residential area with a volume of 1,000 to 4,500 vehicles per day. The street is generally 38 to 40 feet wide between Rosecrans Avenue and 5th Street/Ardmore Avenue with parking on both sides. The street width would permit designation of a two-way Bike Route with two through lanes and curb parking on both sides. Most side streets are stopped along Pacific Avenue except for some stopped intersections. This street would provide a north-south bikeway through the midportion of the City. It would link Rosecrans Avenue with other bicycle generators such as Pacific Elementary School and Valley/Ardmore to the south.

8. Redondo Avenue – Marine Avenue to Manhattan Beach Boulevard

Redondo Avenue is a two-lane major local street in a residential area with a volume of 3,000 to 4,000 vehicles per day. The street is generally 40 feet wide between Marine Avenue and Manhattan Beach Boulevard with parking on both sides. The street width would permit designation of a two-way Bike Route with two through lanes and curb parking on both sides. Most side streets are stopped along Pacific Avenue except for some stopped intersections. This street would provide a north-south bikeway through the easterly portion of the City. It would link the Marine Avenue Park and AdventurePlex with other bicycle generators such as Manhattan Middle School and Polliwog Park to the south.

9. Peck Avenue – 2nd Street to Artesia Boulevard

Peck Avenue is a two-lane major local street in a residential area with a volume of 4,200 vehicles per day. The street is generally 42 feet wide between 2nd Street and Artesia Boulevard with parking on both sides. The street width would permit designation of a two-way Bike Route with two through lanes and curb parking on both sides. Most side streets are stopped along Peck Avenue except for some stopped intersections. This street would provide a north-south bikeway through the easterly portion of the City. It would link several school sites including Mira Costa High School and Pennekamp Elementary School with beach destinations to the west via 2nd Street.

10. 2nd Street – Ardmore Avenue to Peck Avenue

2nd Street is a two-lane major local street in a residential area with a volume of 3,000 to 4,000 vehicles per day. The street is generally 36 to 40 feet wide between Ardmore Avenue and Peck Avenue with parking on both sides. The street width would permit designation of a two-way Bike Route with two through lanes and curb parking on both sides. Most side streets are stopped along 2nd Street except for some stopped intersections and a traffic signal at Sepulveda Boulevard. This street would provide an east-west bikeway to connect the southerly portion of the City. It would link several school sites including Mira Costa High School and Pennekamp Elementary School with beach destinations to the west via Peck Avenue.

Planned Bikeways – Sepulveda Boulevard, Manhattan Beach Boulevard and Artesia Boulevard

While there is insufficient right-of-way to designate a continuous Bikeway on these streets at this time, these streets serve as major links to Bikeways and destinations in adjacent cities. Therefore, a planned Bike Route or Bike Lane could be designated on these streets for future implementation as development occurs. Manhattan Beach Boulevard has been identified as a long-term future Bike Lane in the Coastal Corridor Transportation Study conducted by the South Bay Council of Governments, of which Manhattan Beach is a part. Sepulveda Boulevard and Artesia Boulevard are identified in the City of Hermosa Local Bikeway Plan as proposed bike routes.

COMMENTS FROM OTHER CITY DEPARTMENTS

General thoughts

- With the City being more or less fully built out we're limited in what can be done. There are no places to add bike paths and few, if any, areas with room to designate striped lanes. Emphasis has to be on identifying bike routes.
- Safety must always take precedent over transportation enhancement.
- Removing parking to accommodate bike facilities may not be realistic in most areas.

Public Works

- No significant budget/maintenance concerns about signage for bike routes or limited striping & signage for bike lanes.

Police

- The Police Department is generally opposed to bike lanes on Sepulveda Boulevard. There are too many safety issues related to high traffic volume.
- Similar concerns about Manhattan Beach Blvd.
- They are not sure Highland is an appropriate route. This route would be in close proximity to the existing bike path and has high traffic & pedestrian activity.
- There are no significant enforcement-related concerns. Some driver education would be helpful if striped lanes are created.

Parks & Recreation.

- The suggested system provides reasonable access to major recreational facilities.

CONCLUSION:

Based on criteria analyzed on all candidate streets, staff feels a Citywide Bikeway System could be designated on the following street segments:

STREET	LIMITS	TYPE
Valley Drive	Citywide	Bike Route (SB)
Ardmore Avenue	Citywide	Bike Route (NB)
Highland Avenue	Citywide	Bike Route
Manhattan Avenue	Manhattan Beach Blvd. to 1 st St.	Bike Route/Lane
Rosecrans Avenue	The Strand to Aviation Blvd.	Bike Route/Lane (WB)
Marine Avenue	Sepulveda Blvd. to Aviation Blvd.	Bike Route/Lane (WB)
Pacific Avenue	Rosecrans Ave. to 5 th St./Ardmore Ave.	Bike Route
Redondo Avenue	Marine Ave. to Manhattan Beach Blvd.	Bike Route
Peck Avenue	2 nd St. to Artesia Blvd.	Bike Route
2 nd Street	Ardmore Ave. to Peck Ave.	Bike Route
Sepulveda Boulevard	Citywide	Future Bike Lane
Manhattan Beach Boulevard	Citywide	Future Bike Lane
Artesia Boulevard	Citywide	Future Bike Lane
The Strand	Citywide	Existing Bike Path

It is requested that the Commission review the material provided and provide input regarding the possibility of creating a bikeway system. The matter will ultimately be presented to the City Council for consideration.

ATTACHMENTS

- State and Federal Guidelines (Excerpts)
- Draft Bikeway Plan
- Bicycle Collision History
- 2001 Long Range Transportation Plan (Metro)
- Bicycle Transportation Master Plan Update (Metro)
- Metro Bicycle Transportation Strategic Plan
- City Of Manhattan Beach General Plan (Excerpts)
- City Of Redondo Beach General Plan (Excerpts)
- City Of El Segundo General Plan (Excerpts)
- South Bay Cites Infrastructure and Services Capacity Assessment (Excerpts)
- Coastal Corridor Transportation Study (Excerpts) (SBCOG)

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STATE AND FEDERAL GUIDELINE EXCERPTS

MUTCD 2003

Section 9A.03 Definitions Relating to Bicycles

Standard:

The following terms shall be defined as follows when used in Part 9:

- 1. Bicycle Facilities—a general term denoting improvements and provisions that accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically defined for bicycle use.
- 2. Bicycle Lane—a portion of a roadway that has been designated by signs and pavement markings for preferential or exclusive use by bicyclists.
- 3. Bikeway—a generic term for any road, street, path, or way that in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.
- 4. Designated Bicycle Route—a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route signs, with or without specific bicycle route numbers. Bicycle routes, which might be a combination of various types of bikeways, should establish a continuous routing.
- 5. Shared-Use Path—a bikeway outside the traveled way and physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent alignment. Shared-use paths are also used by pedestrians (including skaters, users of manual and motorized wheelchairs, and joggers) and other authorized motorized and non-motorized users.

CALTRANS HIGHWAY DESIGN MANUAL
Index 1001.1 - Definitions

- "Bikeway" means all facilities that provide primarily for bicycle travel.
- (1) Class I Bikeway (Bike Path). Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.
 - (2) Class II Bikeway (Bike Lane). Provides a striped lane for one-way bike travel on a street or highway.
 - (3) Class III Bikeway (Bike Route). Provides for shared use with pedestrian or motor vehicle traffic with design criteria and uniform symbols.

MINIMUM STREET WIDTHS FOR BIKE LANES

LANES	MINIMUM STREET WIDTH			NOTES
	NO PARKING	PARKING 1 SIDE	PARKING 2 SIDES	
1 (ONE WAY)	14'	23'	31'	One way bike lane
2	24'	34'	41'	One-way bike lane
2	28'	37'	46'	Two-way bike lane
2+LEFT TURN	34'	44'	51'	One-way bike lane
2+LEFT TURN	38'	47'	56'	Two-way bike lane
4	44'	54'	61'	One-way bike lane
4	48'	57'	66'	Two-way bike lane
4+LEFT TURN	58'	67'	76'	Two-way bike lane

DRAFT BIKEWAY PLAN

BICYCLE COLLISION HISTORY

2001 LONG RANGE
TRANSPORTATION PLAN
(Excerpts)
(METRO)

**BICYCLE
TRANSPORTATION
MASTER PLAN UPDATE
(METRO)**

METRO BICYCLE TRANSPORTATION STRATEGIC PLAN

CITY OF MANHATTAN BEACH GENERAL PLAN

(EXCERPTS)

CITY OF REDONDO BEACH GENERAL PLAN

(EXCERPTS)

CITY OF EL SEGUNDO GENERAL PLAN

(EXCERPTS)

**SOUTH BAY CITIES
INFRASTRUCTURE AND
SERVICES CAPACITY
ASSESSMENT
June 30, 2003**

COASTAL CORRIDOR
TRANSPORTATION STUDY
(EXCERPTS)
(SBCOG)