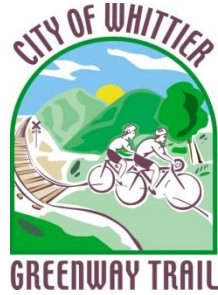


Bikeway Analysis



Whittier Greenway Trail

In the past twenty years, the City has investigated several options to develop a direct route extending the length of the City. The most obvious opportunity, as well as the most complex, involved the conversion of an abandoned Union Pacific Rail line that extends from the western City boundary towards its easterly limits, traveling in a direct route through the heart of Whittier. In the 1982 Master Plan, the idea to convert the UPRR line into a Class I trail was determined to be infeasible. In 1999, the City began negotiating for acquisition of the abandoned line, successfully concluding its purchase in December 2001. With the help of Federal and State funding and the support of the Los Angeles County Metropolitan Transportation Authority, the City has developed the abandoned rail line into a utilitarian and environmentally sound Class I trail. The Whittier Greenway Trail was completed in 2008 and its potential is unprecedented. This rails-to-trails project has dramatically increased the use of alternative modes of transportation in the City and the region.



Whittier Greenway Trail parallels Whittier Boulevard



Whittier Greenway Trail continues on bridge deck over Whittier Boulevard at Five Points

Whittier Greenway Trail (Continued)

The Whittier Greenway Trail includes approximately 4.5 miles of abandoned rail line traversing the City in an east/west direction. Its urban location and direct route through the City are only two of the positive aspects of the trail.

The Whittier Greenway Trail produces unrivaled bicycle access by providing a backbone for connecting three significant Class I paths in the region. The link to the San Gabriel River and LARIO Trails is achieved at the northernmost point of the trail, near the 605 Freeway. Traveling easterly along Lambert Road yields a connection to Beach Boulevard and Imperial Highway to the future north entrance to Coyote Creek Trail Class I Bikeway.

Additionally, the City's commitment to developing a bikeway along Lambert Road or along the active UPRR line, traveling in a easterly direction to the City's limits, would create a link to the City of La Habra and Orange County. The beginning point for the Whittier Greenway Trail Eastern Extension will be a Trail Head parking lot on Mills Avenue just north of Lambert Road. The City is in active negotiation with UPRR to obtain a perpetual easement on the north edge of the active right-of-way from Mills Avenue to the east City limits. There is \$2 million designated in the Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) for the project.



Whittier Greenway Trail Transportation History Exhibit



Whittier Greenway Trail Citrus Industry History Exhibit

Whittier Greenway Trail (Continued)

Due to its origin as a rail line, the placement of the Class I trail is ideal for commuter use. The abandoned railroad right-of-way bisects numerous residential, commercial, industrial and institutional areas within the City. Activity nodes such as Whittwood Town Center, Whittier Marketplace, the Quad, Whittier College, Presbyterian Intercommunity Hospital, several public schools, and churches are located less than one-half mile from the Whittier Greenway Trail. Its centralized urban location offers increased accessibility to various segments of the community with the advantage of a separation between bicycle and automobile.

While the City has implemented this Class I trail, which accomplished an essential element of an enhanced bikeway system. The continued commitment to connecting it with existing or new Class II or Class III bike lanes is important to encourage and increase bicycle usage for commuting to and from work, school, and pleasure. The City is utilizing a Bicycle Transportation Account (BTA) grant to expand and upgrade the bike routes throughout Whittier. Several Class III bike routes will be upgraded to Class II bike lanes along with additional streets designated as Class III bike routes to improve connectivity.



Whittier Greenway Trail

Whittier Greenway Trail Connections

Many residential streets and neighborhoods are already located next to the Whittier Greenway Trail regardless of the City's installation of additional routes. These provide numerous local direct access points to the Whittier Greenway Trail. However, to truly improve the overall system, the creation of new bikeways and upgrades to existing ones that are linked to the Whittier Greenway Trail must be the primary focus. Many existing Class II and Class III routes already connect to the Whittier Greenway Trail; therefore, it is accessible at many points throughout the City.

Direct access to the Whittier Greenway Trail through existing bikeways occurs at:

- Pioneer Boulevard – Class II/Class III
- El Rancho Drive/ Palm Park – Class III
- Broadway – Class II
- Hadley Street – Class III
- Mar Vista Street at Whittier Boulevard – Class II
- Greenleaf Avenue – Class II
- Laurel Avenue – Class III
- Mills Avenue – Class II

Priority shall be given to those routes with a connection to the Whittier Greenway Trail and the future eastern extension; and to those routes which provide the most direct access through the City and to adjacent communities. To this end, installation of or upgrades to routes along Norwalk Boulevard, Santa Fe Springs Road, Washington Boulevard, Colima Road, Lambert Road, Santa Gertrudes Avenue, Leffingwell Road, First Avenue, Beverly Boulevard, Pioneer Boulevard, Laurel Avenue, and Mar Vista Street are priority recommendations. With the focus on the Whittier Greenway Trail, the following upgrades, connections and additions shall be evaluated and implemented to substantially expand the existing bikeway system.

Colima Road

Colima Road is one of the City's busiest thoroughfares with four lanes traveling in a north/south direction. Located closer to the eastern limits of the City, Colima possesses similar opportunities in connecting communities to the north and south as does Norwalk Boulevard. The distance between Colima Road and Norwalk Boulevard is approximately five miles; therefore, an upgrade of both bike routes would achieve improved access to surrounding north/south limits at both ends of the City.

Transitioning into La Mirada Boulevard beyond southern City limits, a Class II lane on Colima Road would provide the City of La Mirada with a link to the Whittier Greenway Trail through a future route on Lambert Road. The communities of Hacienda Heights and La Habra Heights would also be accessible to the north via a Class II route along Colima Road.

Lambert Road

Lambert Road is a four-lane street with parking restrictions for most of its length. Portions of Lambert Road located in the City of La Habra and Los Angeles County already maintain a Class III route. The City of Whittier shall pursue the development of a 15 foot wide portion of the active rail line as an extension of the Whittier Greenway Trail along Lambert Road from Mills Avenue to the eastern city limits. This extension would produce a direct connection from the Whittier Greenway Trail to La Habra and existing Orange County bikeways. Feasibility of installing a future Class II lane along Lambert Road from Mills Avenue to Valley Home Avenue shall be explored at such time that the City determines that use of the adjacent active rail line cannot be achieved.

Mar Vista Street

Class II Bike Lanes are striped along Mar Vista Street extending from Painter Avenue to Whittier Avenue as well as a Class III signed route from Whittier Avenue to the Whittier Greenway Trail at Whittier Boulevard produces a direct travel route from the Whittier Greenway Trail to the Civic Center, the Transit Depot and the Uptown Whittier business district. The installation of this bikeway along this four-lane street provides the most effective link from the Whittier Greenway Trail to three of the City's busiest activity centers.

Norwalk Boulevard

Norwalk Boulevard is a four-lane arterial with an existing Class III designation. Norwalk Boulevard extends north to City limits and unincorporated areas of Los Angeles County. Traveling south along Norwalk Boulevard provides access to the cities of both Pico Rivera and Santa Fe Springs. Some existing features of Norwalk Boulevard may inhibit an upgrade from Class III to II. These obstacles include existing catch basins, roadway width, traffic striping and on-street parking. Because of location, accessibility, potential connection to the Whittier Greenway Trail and the direct route that Norwalk Boulevard provides, future analysis of upgrading shall be considered through the possible redesign of some of these existing features.

Because of its direct path in a north/south direction, a connection to the Whittier Greenway Trail from Norwalk Boulevard shall be analyzed for feasibility. The Whittier Greenway Trail is elevated above Norwalk Boulevard in the form of a bridge. Although maintenance of the bridge is encouraged, a direct connection to Norwalk Boulevard is recommended. This could be achieved through grading and construction of a ramp adjacent to El Rancho Drive feeding out onto Norwalk Boulevard or through acquisition and construction of a ramp on unused school district property located just west of Norwalk Boulevard.

Workman Mill Road

Norwalk Boulevard changes names and becomes Workman Mill Road to the north of Beverly Boulevard. Workman Mill Road is currently designated as a Class III Bike Route that will be upgraded with Class II Bike Lanes. The Los Angeles County Bicycle Master Plan calls for installation of Class II Bike Lanes on Workman Mill Road to provide a bikeway connection to Rio Hondo Community College.

San Gabriel River Trail via Beverly Boulevard

The original concept for the development of the Whittier Greenway Trail included a Class I trail stretching from Norwalk Boulevard to the San Gabriel River Trail along the abandoned rail line. This scenario would have involved the purchase of a railroad trestle bridge that crosses the 605 Freeway, bisecting private property adjacent to the San Gabriel River and crossing an active Metrolink line. One alternative that was also considered was a Class III route south on Orange Drive to Obregon Street bridge across the 605 Freeway to connect with Whittier Boulevard via Esperanza Avenue through Amigo Park. This route would have required the acquisition of a single family home in order to provide a connection between Obregon Street and Esperanza Avenue.

After further investigation and discussion with Caltrans and Metro officials, as well as field observation, the most efficient immediate solution involved the termination of the Class I trail at Pioneer Boulevard with a transition to a Class II or III Lane/Route going north on Pioneer Boulevard and west on Beverly Boulevard. Beverly Boulevard would require future street and bridge widening to accommodate the striping of Class II Bike Lanes. In the interim, Beverly Boulevard will remain signed as a Class III Bike Route to connect to the San Gabriel River Trail. The interim upgrade of Beverly and Pioneer Boulevard is the best alternative until additional funding becomes available. One of the focuses of the City is to improve the connection to the San Gabriel River Trail.

Pioneer Boulevard

As previously indicated, the proposal to upgrade the Pioneer Boulevard bikeway from the Whittier Greenway Trail to the entrance to the 605 Freeway would allow for connection to the San Gabriel River Trail without compromising safety or requiring substantial funds. To provide this upgrade would require the elimination of all on-street parking on both sides of the street. To retain on-street parking for residents along Pioneer Boulevard, a Class II Bike Lane was only be striped in the northbound direction between the Whittier Greenway Trail and Beverly Boulevard. Southbound Pioneer Boulevard remained signed as a Class III Bike Route with supplemental Share the Road Signs and Sharrow Pavement Legends.

Washington Boulevard

A direct connection from Whittier Greenway Trail to the Presbyterian Intercommunity Hospital could be best achieved with an upgrade of Washington Boulevard with Class II bike lanes from the Whittier Greenway Trail to Lambert Road. Presbyterian Intercommunity Hospital is the City's largest employer and the hospital and surrounding medical offices are a major employment center in the City. This would also provide a bikeway connection to the possible future Metro Gold Line Light Rail Station now in route selection determination Environmental Review process.

Santa Fe Springs Road

Upgrading Santa Fe Springs Road with Class II bike lanes would provide connectivity between the Whittier Greenway Trail and York Field located at Mulberry Drive/Slauon Avenue. These bike lanes can be installed through restriping of the travel lanes on the street while still retaining on-street parking. There is the potential opportunity to extend the bikes lanes along Santa Fe Springs Road to connect with the recently installed bikeway system in the City of Santa Fe Springs at Los Nietos Road. This would create a bikeway connection from the City of Whittier to the Norwalk/Santa Fe Springs Metrolink Commuter Rail Station.

Laurel Avenue

A direct connection from Whittier Greenway Trail to one of three major bus line transfer centers could be best achieved with an upgrade of Laurel Avenue to Class II from the Whittier Greenway Trail to the Quad Shopping Center. Laurel Avenue is presently signed as a Class III route with a portion where there is adequate width that accommodates a Class II bike lane. Future extension of the Class II bike lane would require implementing on-street parking restrictions and coordination with Los Angeles County to extend south to Mulberry Drive.

Mills Avenue

Mills Avenue provides striped with Class II bike lane connection to the Whittier Greenway Trail. The Los Angeles County Bicycle Master Plan indicates future extension of the Class II bike lanes south on Mills Avenue to Telegraph Road.

Intermodal Connections

Whittier Transportation Depot Bus Layover / Transfer Station

The City of Whittier pursued an ambitious renovation to its historic Southern Pacific Railroad Depot for use as the City Transit Center and home to its Transit Division. Located in Uptown Whittier, the Transit Depot was completed in 2002. Bus lines and bus transfers with connections to Metrolink Trains are accommodated at the site, so the connection to the Whittier Greenway Trail is an important addition to the bikeway system. Class II bike lanes along Mar Vista Street connects Historic Uptown Whittier to the Whittier Greenway Trail. A short Class III route along Comstock Avenue north of Mar Vista Street would provide access to the rear parking lot of the Transit Center. The distance from the Whittier Greenway Trail to the Transit Depot is less than one mile.

Beverly Boulevard/Norwalk Boulevard Bus Layover / Transfer Connection

Bus transfer and layover station is located adjacent to the Hoover Fountain near the intersection with Beverly Boulevard at Norwalk Boulevard/Workman Mill Road. This location provide convenient transfers between Metro, Foothill Transit, Norwalk Transit and Montebello Bus Lines.

Whittwood Town Center Bus Layover / Transfer Connection

Located within the Whittwood Town Center at Whittier Boulevard at Whittwood Lane, this bus stop provides transfers between Metro, Foothill Transit, Montebello Bus Lines and Los Angeles County Sunshine Shuttle. The Whittwood Town Center has connections to bikeways on Whittier Boulevard, Santa Gertrudes Avenue, Russell Street, Starbuck Street and Messina Drive.

Whittier Quad Bus Transfer Connection

Located adjacent to the Whittier Quad at the intersections of Whittier Boulevard and Painter Avenue, these bus stops provides transfers between Metro, Norwalk Transit, Montebello Bus Lines and Los Angeles County Sunshine Shuttle. The Whittier Quad connects to bikeway system on Laurel Avenue and Whittier Boulevard.

Intermodal Connections



Historic Whittier Transportation Depot
Bus Layover/Transfer Station

Provides bus connection to the
Norwalk/Santa Fe Springs Metrolink
Train Station



Hoover Fountain Bus Layover/Transfer Connection



Whittwood Town Center Bus Layover/Transfer Connection

Scope of the Plan

In order to be eligible for Bicycle Transportation Account (BTA) grant funds, the City of Whittier must have an adopted Bicycle Transportation Plan (BTP) that is no more than five years old that addresses items (a-k) in the Streets and Highways Code Section 891.2. The last BTP was adopted by Whittier City Council on February 1, 2008. In fulfilling the requirements, Whittier BTP will be referencing the countywide BTP prepared by Los Angeles County Metropolitan Transportation Authority (Metro) in the areas the BTA requirements for Whittier have been met. Metro BTP included a discussion of items (a-k) for the City of Whittier. Any items not covered by Metro BTP are further discussed in Whittier BTP.

Whittier BTP addresses the following required elements:

- ❑ *(a) Estimated number of existing bicycle commuters and the estimated increase in the number of bicycle commuters*
- ❑ *(b) Description of existing and proposed land use and settlement patterns (Map)*
- ❑ *(c) Description of existing and proposed bikeways (Map)*
- ❑ *(d) Description of existing and proposed end-of-trip bicycle parking facilities (Map)*
- ❑ *(e) Description of existing and proposed bicycle transportation and parking facilities for connections with and use of other transportation modes (Map)*
- ❑ *(f) Description of existing and proposed facilities for changing and storing clothes and equipment (Map)*
- ❑ *(g) Description of bicycle safety and education program*
- ❑ *(h) Citizen and community involvement in development of the plan*
- ❑ *(i) Description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional plans*
- ❑ *(j) Proposed projects and listing of their priorities for implementation*
- ❑ *(k) Past expenditures for bicycle facilities and future financial needs for projects*

(a) Bicycle Commuter Estimates

Estimates of existing and future bicycle commuter ridership for each of 89 jurisdictions in Los Angeles, including the City of Whittier, is based on a modeling technique originally developed for the Los Angeles County Metropolitan Transportation Authority in 1999 for the Long Range Plan. The model is used for the following purposes:

- 1) Project existing and future bicycle transportation usage (work, school, shopping) in a community.
- 2) Identify increases in usage from completion of all or part of a bikeway system.
- 3) Identify specific benefits of bikeway investments and bicycling, in terms of reduced vehicle trips, reduced vehicle miles traveled, and improvements in specific air quality components.

While the Bicycle Transportation Account (BTA) requirements identify estimates of bicycle commuters only, the 1999 model includes the total range of bicycle transportation trips in a community, including work, bike-transit users, school, recreational and utility trips. This model has been used by a variety of agencies around the United States. The Bicycle Ridership Demand Estimating Model methodology is documented in the 2006 Metro Bicycle Transportation Account Compliance Document, Volume 2, Appendix A, pages A-2 through A-7.

The above document (page 16) estimated that City of Whittier has an existing 2,313 daily bicycle trips, and future projection of 6,446 daily bicycle trips.

(a) Bicycle Commuter Estimates Continued

With the completion of the separate Class I Whittier Greenway Trail in 2008, bikeway usage continues to increase as it provides separate and direct access through most of the City. Actual survey counts performed during September of each year documenting the usage of the Whittier Greenway Trail are shown below. The future extension of the trail to the east toward Orange County is expected to go beyond these recent counts and estimates.

Whittier Greenway Trail Actual Usage Figures from September Surveys

<u>Year</u>	<u>Daily Activity</u>	<u>Weekly Activity</u>	<u>Monthly Activity</u>	<u>Annual Activity</u>	<u>Percent Bicycles</u>
2010	502	3,859	16,538	150,350	29%
2011	613	4,712	20,192	183,566	22%
2012	782	6,015	25,804	234,582	36%

(b) Land Use Patterns

Land use patterns for the City of Whittier are shown on the 2006 Metro Bicycle Transportation Strategic Plan Map 15, page 106. Residential property is the primary land use within the City of Whittier. Destination points for commercial, service, general office and industrial uses lie along major vehicular arterials within the City. These arterials include Whittier Boulevard, Washington Boulevard, Lambert Road, Greenleaf Avenue, and Philadelphia Street. Other concentrations of commercial and retail activity exist through out the City. However, these above mentioned streets represent the more significant areas in the City. The major activity centers include the Whittwood Town Center, the Whittier Quad, Uptown Whittier, Whittier Marketplace, the Whittier Transportation Center (Whittier Historic Depot), Presbyterian Intercommunity Hospital and Whittier Hospital. Recreational activity nodes include an extensive park system throughout the City with Palm, Penn, Parnell, Central, Lee Owens and Michigan Parks generating the most significant activity. Whittier Civic Center and Whittier College are two other significant centers in the northern portion of the City, separate from the general commercial, office and service uses. Whittier has three (3) elementary school districts, three (3) private elementary schools and one (1) high school district that comprise the 25 school campus within, or directly adjacent to, City limits.

Located adjacent to or within close proximity to most of these activity centers are Class II and III bikeways. Almost all the activity nodes are accessible by bicycle with most centers providing bicycle amenities such as bike racks.

Analysis contained within this plan, beginning on page 46, furthers the previous efforts of connecting these activity centers and making them easily accessible to bicyclists. Those bikeways which may be upgraded or added to the existing system for this purpose will be later outlined in this plan as well.

The following pages highlight some of the City's activity centers, including a listing of schools and their proximity to existing or future bikeways.

Shopping Centers



The Quad at Whittier Blvd., a large shopping center directly accessible by Laurel Avenue (Class II)



Whittwood Town Center, directly accessible from Santa Gertrudes Avenue (Class II)



The Marketplace, accessible from nearby Whittier Greenway Trail (Class I)

Hospitals and Medical Centers



Whittier Presbyterian Intercommunity Hospital, future Class II connection via Washington Blvd.



Whittier Hospital Medical Center, directly accessible from Colima Road (Class II) and future Class III on Janine Drive.

Historic Shopping and Business District



Uptown Whittier, looking north and south on Greenleaf Avenue



Whittier College and Continuing Education



Whittier College directly accessible from Painter Avenue (Class III) and Philadelphia Street (Class II)



Sierra Adult Education Center directly accessible from Mulberry Drive (Class III)



Marinello School of Beauty accessible from Hadley Street (Class II)

Public and Private Schools

School and Existing Bikeway Accessibility		
<i>School (District)</i>	<i>Nearest Bikeway</i>	<i>Distance from Bikeway</i>
California (WUHSD)	Whittier Greenway Trail/Mills Avenue/Lambert Road	1000 ft.
Frontier (WUHSD)	Mulberry Road/Greenleaf Avenue	> 100 ft.
La Serna (WUHSD)	Villaverde Drive/Youngwood Drive	> 100 ft.
Whittier (WUHSD)	Whittier Greenway Trail /Hadley Street	200 ft.
Dexter (WCSD)	Whittier Greenway Trail	> 100 ft.
Hoover (WCSD)	Hadley Street	> 500 ft.
Jackson (WCSD)	La Cuarta Street	> 100 ft.
Longfellow (WCSD)	Whittier Greenway Trail	> 100 ft.
Lincoln (WCSD)	Broadway	> 100 ft.
Orange Grove (WCSD)	Whittier Greenway Trail	> 100 ft.
Sorensen (WCSD)	Broadway	300 ft.
West Whittier (WCSD)	Norwalk Boulevard	> 100 ft.
Evergreen (EWCSO)	Greenway /Greenleaf Avenue	300 ft.
East Whittier (EWCSO)	Mills Avenue/La Cuarta Street	1500 ft.
Laurel (EWCSO)	Whittier Greenway Trail /Laurel Avenue	100 ft.
Leffingwell (EWCSO)	Santa Gertrudes Avenue	> 100 ft.
Murphy Ranch (EWCSO)	Janine Drive	> 100 ft.
Ocean View (EWCSO)	La Cuarta Street	700 ft.
Scott Avenue (EWCSO)	Leffingwell Road	800 ft.
Jordan (LJSD)	First Avenue	1300 ft.
Macy (LJSD)	Janine Drive	200 ft.
Meadow Green (LJSD)	Leffingwell Road	1500 ft.
Whittier Christian (Private)	Milton Avenue	>100 ft.
St. Mary's (Private)	Milton Avenue	>200 ft.
St. Bruno's (Private)	Santa Gertrudes Avenue	>100 ft.

WUHSD - Whittier Union High School District
 EWCSO - East Whittier City School District (Elementary)

WCSD - Whittier City School District (Elementary)
 LJSD – Lowell Joint School District (Elementary)

(c) Existing and Proposed Bikeways

The City maintains a system of bikeways that consists of approximately 40 miles of Class I, II, and III bikeways within City limits. Located within both residential and non-residential areas, the existing network allows for comprehensive travel to all areas of the City. Many of these bikeways connect to adjacent cities and Los Angeles County unincorporated areas south of Whittier. The single most important accomplishment since the last Plan and greatest enhancement to the existing system is the Class I Whittier Greenway Trail completed in 2008 that provides both north/south and east/west directions. To improve and increase bicycle commuter travel, additional designations of direct routes are necessary, including future connections of the Whittier Greenway Trail to the trail network in Orange County.

Proposed within this Transportation Plan are an additional 12 miles of Class I, II and III routes, totaling approximately 49 miles of existing and proposed bikeways within Whittier. Table 2 delineates the existing Class I and Class II routes and Table 2 the existing Class III routes, class designations, length, and Average Daily Traffic (ADT) volume. Tables 4 and 5 show the proposed routes.

A map of the entire bikeway system appears as Figure 1. It is also referred as Map 30 – Existing and Proposed Bikeways, Area 15 of 17 – in the 2006 Metro Bicycle Transportation Account Compliance Document (Volume 2).

As studies suggest and field observation confirms, bicyclists are most likely to use paths designed as routes separate from vehicular traffic (Class I). The lesser alternative is designated lanes, striped along existing public streets but separate from motorists (Class II). The least desirable option is a signed route maintained on a public street but with no physical or visual separation from vehicular traffic (Class III). Therefore, the addition of Class I and II bikeways are recommended where feasible. Existing and proposed bikeways located within City of Whittier as well as adjacent cities of Santa Fe Springs, Pico Rivera, La Habra, La Habra Heights, La Mirada and unincorporated Los Angeles County are shown on the 2013 City of Whittier Bicycle Transportation Plan Map, page 114.

Table 2 - Existing Class I & II Bikeways

<i>Existing Class I Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>
Lambert Road UPRR Bike Crossing	Gunn Avenue	Mills Avenue	0.06	19,800
San Gabriel River Bike Trail	Beverly Boulevard	Whittier Boulevard	0.87	N/A
Whittier Greenway Trail	Pioneer Boulevard	Mills Avenue	4.50	N/A
Total Miles of Existing Class I			5.37	

<i>Existing Class II Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>
Broadway Avenue	Western Avenue	Greenleaf Avenue	1.06	7,000
Colima Road	Lambert Road	North City Limits	2.61	40,300
First Avenue	Lambert Road	Whittier Boulevard	0.77	9,400
Greenleaf Avenue	Hadley Street	Beverly Boulevard	0.36	8,600
Greenleaf Avenue	Mulberry Drive	Mar Vista Street	1.38	12,300
Hadley Street	Comstock Avenue	Elmqvist Avenue	0.98	12,500
Leffingwell Road	Lambert Road	Valley Home Avenue	0.76	22,300
Mar Vista Street	Whittier Greenway Trail	Painter Avenue	0.70	12,300
Mar Vista Street	Colima Road	Cerquita Drive	1.09	1,900
Mills Avenue	Lambert Road	Whittier Boulevard	0.64	12,000
Mulberry Drive	Colima Road	Scott Avenue	0.89	12,000
Philadelphia Street	Painter Avenue	Stanford Way	0.17	3,000
Russell Street	Whittier Boulevard	Valley Home Avenue	0.89	3,700
Santa Gertrudes Avenue	Lambert Road	La Forge Street	0.44	15,400
Santa Gertrudes Avenue	Whittier Boulevard	Janine Drive	0.13	7,100
Villaverde Drive	Youngwood Drive	Mar Vista Street	0.53	2,700
Total Miles of Existing Class II			13.40	

Table 3 - Existing Class III Bikeways (Signed Routes)

<i>Existing Class III Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>
Beverly Boulevard	Pioneer Boulevard	Norwalk Boulevard	0.83	31,900
Broadway Avenue	Whittier Boulevard	Western Avenue	0.15	9,200
Broadway Avenue	Greenleaf Avenue	Painter Avenue	0.26	1,600
Carretera Drive	La Cuarta Street	La Serna Drive	0.40	2,800
College Avenue	Whittier Boulevard	Penn Street	1.04	4,900
El Rancho Drive	Floral Drive	Howard Street	0.27	5,200
Floral Drive	Pioneer Boulevard	El Rancho Drive	0.64	1,600
Greenleaf Avenue	Mulberry Drive	La Cuarta Street	1.02	15,500
Howard Street	El Rancho Drive	Palm Avenue	0.15	600
Janine Drive	La Serna Drive	Capulet Avenue/Macy St.	1.86	3,800
La Cuarta Street	Milton Avenue	Carretera Drive	2.35	5,200
La Serna Drive	Janine Drive	Youngwood Drive	0.45	5,700
Lambert Road	Leffingwell Road	East City Limits	0.85	20,200
Laurel Avenue	Whittier Boulevard	Mulberry Drive	0.89	8,100
Leffingwell Road	Scott Avenue	Lambert Road	0.66	22,300
Mar Vista Street	Colima Road	Villaverde Drive	0.11	4,400
Messina Drive	Scott Avenue	Starbuck Street	0.28	1,800
Milton Avenue	La Cuarta Street	Broadway Avenue	1.23	3,000
Mulberry Drive	Santa Fe Springs Road	Colima Road	2.22	20,200

Table 3 - Existing Class III Bikeways (Signed Routes) continued

<i>Existing Class III Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>
Norwalk Boulevard	Beverly Boulevard	South City Limits	1.10	16,300
Painter Avenue	Penn Street	Broadway Avenue	0.74	26,700
Palm Avenue	Howard Street	Broadway Avenue	0.17	3,400
Penn Street	Milton Avenue	College Avenue	0.70	4,400
Pioneer Boulevard	Beverly Boulevard	Orange Drive	0.42	3,700
Santa Gertrudes Avenue	Leffingwell Road	Lambert Road	0.23	14,000
Santa Gertrudes Avenue	La Forge Street	Whittier Boulevard	0.19	12,600
Scott Avenue	Leffingwell Road	Messina Drive	0.68	10,700
Slauson Avenue	West City Limits	Santa Fe Springs Road	0.34	24,700
Starbuck Street	Messina Drive	Santa Gertrudes Ave	0.30	3,900
Whittier Boulevard	Laurel Avenue	College Avenue	0.11	39,000
Whittier Boulevard	Santa Gertrudes Avenue	Russell Street	0.13	31,000
Youngwood Road	Colima Road	Seranata Drive	0.97	2,700
Workman Mill Road	Beverly Boulevard	North City Limits	0.36	18,900
Total Miles of Existing Class III Bikeways			18.42	

Recent Bikeway Upgrades – page 1

- Greenleaf Avenue from Mar Vista Street to Mulberry Drive/South City Limits



Upgraded Class III bike route with “Road Diet” travel lane reduction restriping to provide two-way left-turn lane, one travel lane each direction and Class II Bike Lanes.

- Laurel Avenue from Oak Street to Starbuck Street



Upgraded Class III Bike Route with striping of Class II Bike Lanes.

Recent Bikeway Upgrades – page 2

- Pioneer Boulevard from Whittier Greenway Trail to Beverly Boulevard
- Philadelphia Street from Painter Avenue to Stanford Way



Striping of northbound Class II Bike Lane and installation of “Share the Road” Signs with “Sharrow” pavement markings for the southbound Class III Bikeway.



Upgraded Class III Bike Route with striping of Class II Bike Lanes adjacent to the campus of Whittier College.

Recent Bikeway Upgrades – page 3

- Mar Vista Street from Whittier Boulevard to Painter Avenue



Striping of Class II Bike Lanes to connect Civic Center and Whittier Historic Uptown District with the Whittier Greenway Trail.

- Mar Vista Street from Colima Road to Villaverde Drive



Striping of Class II Bike Lanes was included as a Transportation Demand Management (TDM) condition of redevelopment.

Table 4 - Proposed Class I & Class II Bikeways

<i>Proposed Class I Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Priority</i>
Eastern Extension of the Whittier Greenway Trail	Mills Avenue	East City Limits	2.80	N/A	1
Whittier Boulevard	San Gabriel River Trail	Pio Pico State Historic Park	0.15	N/A	2
Jacmar Drainage Channel	Whittier Greenway Trail E/O Laurel Avenue	Oak Street	0.38	N/A	3
Total Miles of Proposed Class I Bike Paths			3.23		

<i>Proposed Class II Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Priority</i>
Workman Mill Road	Beverly Boulevard	North City Limits	0.36	18,900	1
Washington Avenue	Walnut Street	Penn Street	0.25	3,400	2
Santa Fe Springs Road	Mulberry Drive	Whittier Boulevard	1.04	15,300	3
Washington Boulevard	Lambert Road	Whittier Boulevard	0.36	24,800	4
Starbuck Street	Portada Drive	Santa Gertrudes Ave.	0.15	3,900	5
Greenleaf Avenue	Beverly Boulevard	Orange Road	0.11	3,100	6
Beverly Boulevard	San Gabriel River Trail	Norwalk Boulevard	0.83	31,900	7
Leffingwell Road	Scott Avenue	Lambert Road	0.66	22,300	8
Lambert Road	Mills Avenue	Leffingwell Road	1.97	24,100	9
Broadway	Whittier Boulevard	Western Avenue	0.15	9,200	10
Norwalk Boulevard	Beverly Boulevard	South City Limits	1.10	16,300	11
Laurel Avenue	Starbuck Street	Mulberry Drive	0.69	8,100	12
Total Miles of Proposed Class II Bike Lanes			7.67		

Table 5 - Proposed Class III Bikeways (Signed Routes)

<i>Proposed Class III Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Priority</i>
Hadley Street	Greenway	Comstock Avenue	0.57	14,900	1
Comstock Avenue	Mar Vista Street	Penn Street	0.11	3,300	2
Bogardus Avenue	Whittier Boulevard	Janine Drive	0.21	1,900	3
Santa Gertrudes Avenue	Janine Drive	West Road	0.21	4,900	4
West Road	Santa Gertrudes Avenue	City Limits	0.30	2,200	5
Whittier Boulevard	First Avenue	Bogardus Avenue	0.06	27,500	6
Janine Drive	Colima Road	La Serna Drive	0.21	71,00	7
Total Miles of Proposed Class III Bikeways			1.67		

(d) End-of-Trip Bicycle Parking

At present, many end-of-trip facilities have already been constructed throughout the City. The facilities consist of bike racks at major activities nodes including many retail centers, both hospitals, public building, Whittier Transportation Depot, parks and schools. The following page lists some of the destination points where bike racks have been installed (Table 6). The Transportation Element and the Environmental Resources Management Element of the Whittier General Plan addresses the need to further accommodate bicycle users at all major activity centers.

Additionally, Ordinance 2589 serves as the Transportation Demand Management (TDM) ordinance requiring bicycle facilities and amenities be provided for large-scale development projects. This includes not only parking facilities but informational facilities as well.

Showers, lockers, and changing facilities are presently available in Uptown Whittier (Uptown YMCA), East Whittier (East Whittier YMCA), Palm Park, and the Whittier Community Center, located on Washington Avenue across from the Civic Center. In addition to these facilities, the City shall pursue additional amendments to the Municipal Code requiring the installation of end-of-trip facilities for large development projects and businesses.

As described in Table 6, at least nineteen (19) sites maintain bike racks ranging in use from area high schools to large retail centers. An approximate total of 168 bicycle spaces are available throughout the City. This total does not include most institutional uses, such as elementary and junior high schools as well as public parks in the area. With the completion of the Whittier Greenway Trail, the City shall analyze specific activity nodes for installation of additional bike racks or other end of trip facilities to accommodate the increased bicyclists. Existing public bicycle parking facilities are shown on the 2013 Whittier Bicycle Transportation Plan Map, page 114.



Bailey Post Office Bike Racks



City Hall Bike Racks

Table 6 End of Trip Facilities

End of Trip Facilities		
<i>Location</i>	<i>Cross Streets</i>	
<i>Agencies</i>		
YMCA - Uptown (7 spaces)	Hadley Street	Pickering Avenue
YMCA – East Whittier (3 spaces)	Starbuck Street	Santa Gertrudes Avenue
<i>Regional Medical Centers</i>		
Presbyterian Hospital (7 spaces)	Washington Boulevard	Lambert Road
Whittier Hospital (11 spaces)	Janine Drive	Colima Road
<i>High Schools</i>		
Whittier High School (23 spaces)	Philadelphia Street	Whittier Avenue
La Serna High School (11 spaces)	Youngwood Avenue	La Serna Drive
<i>Major Retail Centers</i>		
Whittwood Town Center (7 spaces)	Whittier Boulevard	Santa Gertrudes Avenue
Whittier Quad (14 spaces)	Whittier Boulevard	Laurel Avenue
<i>Public Buildings and Right-of-way</i>		
City Hall (4 spaces)	Penn Street	Friends Avenue
Whittier Transportation Center (4 spaces)	Greenleaf Avenue	Penn Street
Whittier Theater (11 spaces)	Greenleaf Avenue	Wardman Street
Whittier Central Library (7 spaces)	Washington Avenue	Mar Vista Street
Whittier Branch Library (11 spaces)	Santa Gertrudes Avenue	Starbuck Street
Multi-deck Parking Lot (5 spaces)	Philadelphia Street	Bright Avenue
Public Right-of-Way (5 spaces)	Bright Avenue	Philadelphia Street
Public Right-of-Way (7 spaces)	Greenleaf Avenue	Bailey Street
Public Right-of-Way (11 spaces)	Philadelphia Street	Greenleaf Avenue
Post Office Parking Lot (7 spaces)	Washington Avenue	Bailey Street
Post Office (7 spaces)	Michigan Avenue	Christine Drive

(e) Regional Park and Ride Facilities

Whittwood Town Center, located on Whittier Boulevard and Santa Gertrudes Avenue has been identified in the 2006 Metro BTA Compliance Document, Volume 2, Table 5 as one of the sites with bicycle parking at park and ride lot. In addition, the Whittier Transportation Center (Historic Depot), completed in 2002, is designated as another park and ride facility that is served by Norwalk Transit Route 3.

Completed in September 2006, the 65-acre Whittwood Town Center is a revitalized retail and residential village located on Whittier Boulevard and Santa Gertrudes Avenue. There are four anchor retailers and a major grocery chain with new specialty shops, retailers, restaurants, and a multi-tenant upscale residential district of 114 townhomes. There are 3,591 parking stalls providing a parking ratio of 4.5/1,000 sq. ft. The center is served by Metro Line #120, Montebello Bus Line #10, and South Whittier County Sunshine Shuttle. All of the buses are equipped with front folding bicycle transportation storage racks.



Bicycle Racks at Whittwood Town Center



Whittwood Town Center Bus Layover/Transfer Station

(e) Regional Park and Ride Facilities continued

The Whittier Transportation Center (Whittier Historic Depot) was restored with grant funds through the Transportation Enhancement Act (TEA). It was reopened in 2002 with a new use and a new lease on life. The restored Depot serves as “home base” for the Whittier Transit Division. An important function of the Center is the centralization of information and services relating to public transit. Uses include a surface transportation museum, a Dial-A-Ride dispatch center; a transit information center where customers can receive information on all forms of public transit; and a meeting room in the former baggage storage area. There are parking stalls and a bicycle rack with four spaces. The Whittier Transportation Depot is served by Norwalk Transit Route 3 and Whittier Dial-A-Ride.

The Whittwood Town Center and Whittier Transportation Center (Whittier Historic Depot) public regional park and ride facilities are shown on the 2013 City of Whittier Bicycle Transportation Plan Map, page 114.



Whittier Dial-A-Ride at Whittier Depot Transit Center and Park and Ride Facility

(f) Changing Facilities

The City of Whittier now has four (4) known locations of public restrooms, showers or changing facilities for bicycle commuters:

- ❑ East Whittier YMCA on Starbuck Street at Santa Gertrudes Avenue
- ❑ Whittier Community Center on Washington Avenue at Mar Vista Street
- ❑ Uptown YMCA on Hadley Street at Pickering Avenue
- ❑ Palm Park on Palm Avenue north of Broadway

The locations of the changing facilities are shown on the 2013 Whittier Bicycle Transportation Plan Map, page 114.

(g) Safety and Education

The United States ranks among the lowest of all developed countries for which bicycles are used as modes of transportation. Climate is not necessarily a factor as some northern European countries rank among those with the highest rate of utilitarian bicycle use.

Americans generally depend heavily upon their automobiles with development patterns and public street designs that encourage that dependence. Further, many individuals view bicycle use on public streets as unsafe; therefore, education of both the motorist and potential bicycle user is necessary to further the goal of reducing vehicular trips and increasing the use of bicycles as modes of transportation.

The completion of the Whittier Greenway Trail, a Class I bike path within the abandoned rail line, achieved many objectives including the provision of a reassuring separation between car and bicycle. Additionally, the upgrade of existing Class III routes to Class II bike lanes will likely promote increased usage due to the perception of improved safety of Class II versus Class III paths.

Safety Measures

The City has analyzed many options for increasing safety of bicycle and pedestrian travel throughout the City. Aside from the obvious benefits gained from the implementation of an extensive and separate Class I bike trail traversing the heart of Whittier, the Whittier Greenway Trail illustrates to residents the City's commitment to reducing vehicular traffic and dedicating funds and resources for safe bicycle use within the City. With increased awareness produced with the use of the Whittier Greenway Trail, individual perspectives on the safety of bicycle travel is becoming more positive and residents are becoming more likely to use other bikeways throughout the City. Complete Streets design concepts will be incorporated in future street improvements by the City to provide for better integration of transit, bike and pedestrian safety amenities.

Enforcement of traffic laws is an important component of bicycle safety. Presently, Whittier Police officials enforce traffic laws applicable to both bicyclists and motorists. Bicyclist safety depends on continued Police Department efforts in patrolling all bikeways, including the separate Class I Whittier Greenway Trail. The Whittier Police Department trains a select number of officers and numerous public safety volunteers to patrol on bicycles; therefore, safety along all classes of bikeways is enhanced within City boundaries.

The City has analyzed existing conditions found within street crossings and intersections as well as posted speed limit signs to determine if additional safety features are necessary to accommodate the potential increase in bicyclists. Safety features were incorporated in the development of the Class I Whittier Greenway Trail, particularly in areas where the Whittier Greenway trail meets the streets.

<i>Intersection</i>	<i>Safety Improvements</i>
Pioneer Boulevard s/o Orange Grove Avenue	2 street lights installed
Norwalk Boulevard	Constructed new bridge deck
Palm Avenue @ Howard Street	Established 3-way stop intersection and installed 2 street lights
Broadway Avenue @ Court Avenue	Established 4-way stop intersection and installed 2 street lights
Magnolia Avenue @ Camilla Avenue	Established 3-way stop intersection and installed 3 street lights
Philadelphia Street @ Gregory Avenue	Installed bicycle/pedestrian traffic signal and 3 street lights
Hadley Street @ Hoover Avenue	Installed bicycle/pedestrian traffic signal and 2 street lights
Bailey Street @ Gregory Avenue	Installed 4-way stop and 3 street lights
Penn Street @ Union Avenue	Installed 2 street lights
Mar Vista Street @ Whittier Boulevard	Directed bicycle/pedestrian to existing traffic signal
Pickering Avenue @ Whittier Boulevard	Replaced existing bridge at Pickering with a new bridge and constructed new decking
Greenleaf Avenue @ Putnam Street	Install flashing lights and in-roadway warning lights for bicycle/pedestrian crossing, and installed 2 street lights
Painter Avenue @ Dittmar Drive	Installed bicycle/pedestrian traffic signal and 2 street lights
Laurel Avenue @ Lambert Road	Directed bicycle/pedestrian to existing traffic signal
Calmada Avenue @ Lambert Road	Directed bicycle/pedestrian to existing traffic signal
Gunn Avenue @ Lambert Road	Directed bicycle/pedestrian to existing traffic signal
Mills Avenue @ Lambert Road	Directed bicycle/pedestrian to existing traffic signal

Bicycle Accident Rate

From January 2007 to December 2011, 150 collisions involving bicycles were reported in the City, a reduction of 31 collisions from what was reported between January 2001 and December 2006 in the 2008 Bicycle Transportation Plan. These 150 reported collisions resulted in 136 injuries and 1 fatality. Analysis of the bicycle collisions are shown in the attachments beginning on page 71. Collision Report Summary, generated by the Police Department, has been included as an attachment pages 76 through 85 for the Collision Report Summary.

No single intersection appeared to involve a majority of accidents; however, there was a noted high concentration of accidents that occurred along Washington Boulevard between Lambert Road and the West City Limits. Whittier Boulevard is the street with the greatest number of accidents/injuries occurring at various points throughout the City. Whittier Boulevard is a heavily traveled State highway with no designated bikeways and no proposals to include any significant routes. However, it is likely that bicycle commuting occurs with much frequency along Whittier Boulevard because of its accessibility, directness and central location in the community. Because Whittier Boulevard is an east/west highway, it is fair to assume that commuters relying on its location and direction may increasingly turn to the Whittier Greenway Trail for travel. This would likely decrease the number of accidents occurring along Whittier Boulevard and therefore, increase overall bicycle safety within the City. As previously outlined, the City has added many specific safety features at various intersections along the Whittier Greenway Trail to make travel along the Class I trail as safe and direct as possible.

In addition to the safety measures along the Whittier Greenway Trail it is recommended that similar analysis be conducted prior to installation of future bikeways or upgrades. Bicycle accident rates shall also be reviewed on an annual basis and evaluated for additional safety features.

(g) Safety and Education continued

Educational and Incentive Programs

To fully commit to supporting bicycle use as a viable transportation alternative, the City shall explore methods to educate both bicyclists and motorists of the benefits gained from both recreational and utilitarian cycling.

The City shall support activities and community events where biking is shown to be an enjoyable alternative to driving. The City shall support other local and regional events and participate in incentive programs such as a Bike To Work program. In 2007, the Whittier Transportation Depot was a pit stop for Bike to Work Day which attracted more than 50 bicyclists. Over \$2,000 in prizes were given away.

The annual Bike to Work Pit Stop from 2008 to 2012 took place at the Palm Park Trailhead along the Whittier Greenway Trail. In attendance were representatives from two (2) main bicycle shops in the City to perform routine bicycle maintenance and provide safety information.

The Whittier Police Department conducts annual Officer Education program at all public and private elementary schools within the City of Whittier. The program includes emphasis on bicycle safety education, which includes the “McGruff the Crime Dog” bicycle safety video and “Officer Ollie” interactive student participation on proper safe riding habits, safety equipment, and rules of the road.

Bicycle safety education aimed at school age children serves not only as a preventative measure but also a direct connection to a large segment of the bicycling population. Elementary school assemblies or classroom instruction of bicycle safety measures may produce a reduction in bicycle accidents, particularly those resulting from lack of use of safety helmets, inappropriate use of safety gear or reckless riding. Younger children may be more influenced by such instruction; however, children in grades 3-8 are most likely to use bicycles for commuting purposes. Thus, those age groups should also be included in any education program conducted by the City.

The City shall also pursue available funding for the improvement of amenities for bicyclists. Such funds might be used to include bike racks or locker facilities at various public sites. Requiring developers to include such amenities in their projects would also serve as an incentive for cyclists to use the existing system more frequently.

Finally, education of motorists is equally important. Brochures or flyers emphasizing the viability of alternative modes of transportation could be produced by the City and made available at various public offices including the Department of Motor Vehicles (DMV). Maps of bike routes and bus service connections would illustrate the system's viability and accessibility. Additionally, education of motorists relative to safe road-sharing would also be useful. With increased future use of the City's bikeway network, the City will also need to increase the awareness of automobile drivers. Brochures, flyers or a segment on local cable could be sources of information on the benefits of bicycling as well as a tool for increased safety awareness.

In short, if the City is committed to the promotion of both utilitarian and recreational bicycling, incentive programs may be developed over a period of time and evolve with the needs of the community.

(b) Community Outreach, Citizen and Public Involvement

The City of Whittier acknowledges that a comprehensive plan for an enhanced bikeway network is a vital element of its transportation system and a necessity for the community. However, without the interest or support of community, projects proposed within this Plan might be eliminated or reduced in priority and scope. Additionally, projects with a regional impact cannot be implemented without the support of adjoining cities or jurisdictions. The process for purchase and development of the Whittier Greenway Trail illustrates the City's commitment to improving the bikeway network and encouraging community participation. For the Whittier Greenway Trail, the City formed a Work Group consisting of Whittier City Council representatives, National Park Service staff and City staff. The Work Group met regularly to discuss issues pertinent to the development of the corridor. During the design phase, the City Council appointed nine residents to a Task Force that met regularly for a year in public to provide input on trail design.

For this plan, citizens were invited to provide input to the Draft Plan at meetings of the Parking and Transportation Commission on November 1, 2012 and January 3, 2013, the Parks, Recreation and Community Services Commission on January 16, 2013 and the Planning Commission on January 23, 2013. The Parking and Transportation Commission approved the revisions to the Plan on February 7, 2013 and forwarded a recommendation to City Council to adopt the Plan. Another opportunity for public input was held at the City Council meeting on February 26, 2013, where the Council discussed and unanimously approved the Plan.

Notices inviting citizens the opportunity to participate and comment on the draft Whittier Bicycle Transportation Plan at the Parking and Transportation Commission, Parks and Recreation Commission , Planning Commission and City Council meetings where posted at City Hall and public libraries, published in the Whittier Daily News and broadcasted on local City TV Channel 3.

(i) Consistency with Local and Regional Plans

The development of the Bicycle Transportation Plan required coordinated efforts between the City Public Works Department, Transit Division, Planning Division and Administration. Together with support from local bicycling organizations, school administrators and city staff from surrounding jurisdictions, the plan includes input from many key stakeholders.

The plan is consistent with both local and regional plans developed by the City of Whittier, County of Los Angeles and the Metro. The 2013 City of Whittier Bicycle Transportation Plan is consistent with the 2012 County of Los Angeles Bicycle Master Plan and the 2006 Metro Bicycle Transportation Strategic Plan.

The Whittier General Plan addresses bicycle use in the Environmental Resources Management Element developed in 1993. Although no specific projects or bikeways are identified in the General Plan, incentives and amenities for bicyclists are addressed. This plan furthers efforts proposed within the General Plan and specifies projects and programs to be implemented, that will improve circulation and air quality by reducing vehicular trips.

The Metro *Southeast Area Bicycle Master Plan* references the Whittier Greenway Trail as a potential Class I or Class II route receiving individual discussion within the document. The following excerpt from the *Master Plan* suggests prioritizing the trail as a portion of 20 potential miles of Class I trails in the area:

These mileages were determined as follows: Class I facilities extend along the Los Angeles River from the existing bikeway into Los Angeles, along Coyote Creek in La Mirada, Compton Creek in Compton from Long Beach, the Southern Pacific (now Union Pacific) Railroad right-of-way along Lambert Road in Whittier...

No other projects are specifically addressed with the Metro *Master Plan*; however, the potential of the Whittier Greenway Trail project has only recently been realized. Updates of local and regional plans are more likely to address the Class I routes as well as critical connections within and outside City boundaries.

(j) Implementation Program

Proposed Bikeways

The following pages describe proposed bikeways and upgrades to existing bikeways throughout Whittier in the coming years. Each description includes the name of the street and its boundaries; the proposed class designation; distance; surrounding land uses; average daily traffic (ADT); and special aspects associated with the bikeway. Additionally, a photograph of each bikeway has been included.

(j) Proposed Bikeways continued

Implementation Phasing

There are four major considerations in preparing the implementation phasing program for developing the City of Whittier bikeway network. These include:

- *System continuity*
- *Connections to the Whittier Greenway Trail*
- *Costs related to available for budgeted funds*
- *Opportunity or constraints to implementation*

Implementation Considerations

For the network to be a viable means of utilitarian bicycle travel, implementation shall occur in a logical manner with continuity between existing and proposed segments for the system. Priority shall be given to those segments with the most potential to connect adjoining cities and jurisdictions to Whittier and the Whittier Greenway Trail. A fractured or partial network will not adequately serve the community or region.

Because of the significance of the Whittier Greenway Trail, priority shall be given to those lanes or routes which directly feed into the Class I path. Additionally, those lanes or routes which connect the Whittier Greenway Trail to public transit routes shall also be a high priority to allow for more seamless linkage between the various modes of transportation.

A limited amount of funding is typically available each year within the City's capital improvement program. Those funds earmarked for bikeway system improvements will vary annually. The City shall determine the appropriate expenditures of funds from various sources with attention paid to priorities outlined within this plan.

(j) Proposed Bikeways continued

An additional factor in the implementation process is the opportunity for development. Some lanes and routes designated as a top priority may be easily implemented; however, others will require special consideration due to potential obstacles to their development. On-street parking, street condition, existing infrastructure will all play a role in the ability to designate bikeways. Additionally, connections to adjoining communities within other jurisdictions may hinder implementation of certain additions or upgrades to the bikeway system. The City shall attempt to proceed with the implementation of the high priority routes where feasible.

In order to assign prioritization for future bikeway project implementation, the City has utilized applicable portions of the Prioritization and Phasing Criteria developed by Los Angeles County for their 2012 Bicycle Master Plan. The criteria addresses bikeway utility, implementation and project cost with the following factors:

Utility Criteria

- Connects to Existing Bikeway Facility (0,15, or 20 points) Connects to Class I, 20 points; Connects to Class II or III, 15 points.
- Connects to Proposed Bikeway Facility (0 or 10 points) 10 points awarded if project connects to other proposed routes.
- Alternative Route Availability (0 or 10 points) 10 points awarded if project does not have a parallel existing facility.
- Connects to University, Community College, or Other Institutions of Higher Learning (0 or 20 Points) 20 points if connects to facility.
- Connects to Transit Station (0 or 20 points) 20 points awarded if adjacent to existing transit facility.
- Connects to K-12 School (0, 10, or 20 points) 20 points awarded for multiple schools, 10 points for single school.
- Within an Area of High Employment Density (0 or 10 points) 10 points awarded if project connects to high employment area.
- Connects to Park, Library or Recreation Center (0, 10, or 20 points) 10 points awarded for one facility, 20 points for multiple facilities.
- Community Support (0, 5, or 10 points) Support from one person, 5 points; Support from more persons, 10 points.

(j) Proposed Bikeways continued

Implementation Criteria

Project Cost (0 - 20 points) See Table 1 for points awarded:

Table 1: Project Cost Prioritization Criteria

<u>Cost of Proposed Project</u>	<u>Points Received</u>
\$100,000 or Less	20
\$100,001 - \$500,000	15
\$500,001 - \$1,500,000	10
\$1,500,001 - \$3,000,000	5
Greater than \$3,000,000	0

- Project Coordination (0 or 10 points) 10 points awarded if jurisdictional coordination with other agency is not required.
- Requires Travel Lane Removal (0 or 5 points) 5 points awarded if travel lane removal is not required.
- Requires Reduction in Width of Landscaped Medians (0 or 5 Points) 5 points awarded if median width reduction is not required.
- Requires Street Widening of Paved Surface (0 or 5 points) 5 points awarded if widening of roadway is not required.
- Requires Parking Removal (0 or 5 points) 5 points awarded if parking removal is not required.

Bikeway Priority and Phasing Criteria Score Ranking

Segment	From	To	Class	Mileage	Priority Score	Utility Score	Implementation Score
Workman Mill Road	Beverly Blvd.	North City Limits	II	0.36	140	95	45
Santa Fe Springs Road	Whittier Blvd.	South City Limits	II	1.40	140	90	50
Washington Ave.	Walnut St.	Penn St.	II	0.25	130	80	50
Washington Boulevard	Lambert Road	Whittier Boulevard	II	0.60	130	80	50
Starbuck Street	Portada Drive	Santa Gertrudes Avenue	II	0.15	130	80	50
Hadley St.	Whittier Greenway Trail	Comstock Ave.	III	0.57	125	80	45
Comstock Ave.	Mar Vista St.	Penn St.	III	0.11	120	70	50
Greenleaf Ave.	Beverly Blvd.	Orange Dr.	II	0.11	90	40	50
Bogardus Ave.	Whittier Blvd.	Janine Dr.	III	0.21	90	40	50
Santa Gertrudes Ave.	Janine Drive	West Road	III	0.21	90	40	50
West Road	Santa Gertrudes Ave.	City Limits	III	0.30	90	40	50
Beverly Blvd.	San Gabriel River Trail	Norwalk Blvd.	II	0.83	85	45	40
Leffingwell Road	Scott Ave.	Lambert Road	II	0.66	85	45	40
Lambert Road	Mills Avenue	Leffingwell Road	II	1.97	85	50	35
Whittier Greenway Trail Eastern Extension	Mills Avenue	Valley Home Avenue	I	2.80	80	60	20
Broadway	Whittier Blvd.	Western Ave.	II	0.15	80	30	50
Norwalk Blvd.	Beverly Blvd.	South City Limits	II	1.10	80	75	5
Whittier Blvd.	First Ave.	Bogardus Ave.	III	0.06	80	40	40
Janine Drive	Colima Road	La Serna Drive	III	0.21	80	30	50
Pio Pico Mansion	San Gabriel River Trail	Pioneer Blvd.	I	0.11	80	30	50
Laurel Avenue	Starbuck Street	Mulberry Drive	II	0.69	65	30	35
Jacmar Drainage Channel	Whittier Greenway Trail	Oak St.	I	0.38	50	30	20

Table 7 – Bikeway Implementation High Priorities

Rankings are based upon priority and criteria scores, City Council Priorities and funding availability.

<i>Rank</i>	<i>High Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Class</i>
1	Eastern Extension of the Whittier Greenway Trail	Mills Avenue	East City Limits	2.80	N/A	I
2	Whittier Boulevard	San Gabriel River Trail	Pio Pico Mansion	0.15	36,000	I
3	Workman Mill Road	Beverly Boulevard	North City Limits	0.36	18,900	II *
4	Santa Fe Springs Road	Mulberry Drive	Whittier Greenway Trail	1.04	15,300	II
5	Washington Avenue	Walnut Street	Penn Street	0.25	3,400	III
6	Washington Boulevard	Whittier Greenway Trail	Lambert Road	0.38	24,800	II
7	Starbuck Street	Portada Avenue	Santa Gertrudes Ave.	0.15	3,900	II *
8	Hadley Street	Whittier Greenway Trail	Comstock Avenue	0.57	14,900	III
9	Comstock Avenue	Mar Vista Street	Penn Street	0.11	3,300	III
Total Miles of Proposed High Priority Bikeways				5.81		

* Upgrade from existing Class III Route to Class II Bike Lanes

Future Bikeways and Upgrades – High Priority page 1

- Eastern Extension of the Whittier Greenway Trail from Mills Avenue to East City Limits



Construct Class I Bikeway connection to City of La Habra/Orange County. Whittier Greenway Trail Eastern Extension will have a Trail Head parking lot accessible from Mills Avenue.

- Whittier Boulevard from San Gabriel River Trail to Pio Pico Mansion



Construct Class I Bikeway connection between the San Gabriel River Trail and the Pio Pico Mansion State Historic Park located at the intersection of Whittier Boulevard and Pioneer Boulevard.

Future Bikeways and Upgrades – High Priority page 2

- Workman Mill Road from Beverly Boulevard to North City Limits



Upgrade Class III Bike Route with the installation of Class II Bike Lanes. Future extension of Class II bikeway in Los Angeles County to provide connection to Rio Hondo Community College.

- Santa Fe Springs Road from Whittier Boulevard/Whittier Greenway Trail to Mulberry Drive/South City Limits



Striping of Class II Bike Lanes to provide bikeway connection from the Whittier Greenway Trail to Mulberry Drive/York Field baseball and softball fields. Future extension to connect to Class II Bike Lanes within the City of Santa Fe Springs to provide a bikeway connection to Norwalk/Santa Fe Springs Metrolink Commuter Rail Station.

Future Bikeways and Upgrades – High Priority page 3

- Washington Avenue from Walnut Street to Penn Street



Installation of Class II Bike Lanes to provide connection from Mar Vista Street to City Hall, Library, Police, County Courts, Health Center Community Center, Joe Miller Field, Special Activities building and Senior Center.

- Washington Boulevard from Whittier Boulevard /Whittier Greenway Trail to Lambert Road



Installation of Class II Bike Lane striping and signing to provide direct connection from Whittier Greenway Trail to Presbyterian Intercommunity Hospital and possible future Metro Gold Line light rail station.

Future Bikeways and Upgrades – High Priority page 4

- Starbuck Street from Portada Drive to Santa Gertrudes Avenue



Installation of Class II Bike Lines adjacent to East Whittier Branch Library, YMCA, Leffingwell Ranch Park and Whittwood Town Center.

- Hadley Street from Whittier Greenway Trail to Comstock Avenue



Installation of "Share the Road" signs with Sharrow pavement legends within the second travel lane from the Whittier Greenway Trail to Comstock Avenue.

Future Bikeways and Upgrades – High Priority page 5

- Comstock Avenue from Mar Vista Street to Penn Street



Installation of Class III Bike Route signing to provide connection between Penn Street and Mar Vista Street to the Whittier Historic Depot Transit Center.

- La Cuarta Street from Whittier Boulevard to Milton Avenue



Extension of Class III Bike Route signing to provide connection to the Whittier Greenway Trail at the Five Points intersection at Whittier Boulevard.

Table 7 – Bikeway Implementation Second Priorities

<i>Rank</i>	<i>Second Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Class</i>
1	Greenleaf Avenue	Beverly Boulevard	Orange Drive	0.11	3,100	II
2	Bogardus Avenue	Whittier Boulevard	Russell Street	0.21	1,900	III
3	Santa Gertrudes Avenue	Janine Drive	West Road	0.21	4,900	III
4	West Road	Santa Gertrudes Ave.	City Limits	0.30	2,200	III
5	Beverly Boulevard	San Gabriel River Trail	Norwalk Boulevard	0.83	31,900	II *
6	Leffingwell Road	Scott Avenue	Lambert Road	0.66	22,300	II *
7	Lambert Road	Mills Avenue	Leffingwell Road	1.97	24,100	III
8	Broadway	Whittier Boulevard	Western Avenue	0.15	9,200	II *
9	Norwalk Boulevard	Beverly Boulevard	South City Limits	1.10	16,300	II *
10	Whittier Boulevard	First Avenue	Bogardus Avenue	0.06	27,500	III
11	Janine Drive	Colima Road	La Serna Drive	0.21	7,100	III
Total Miles of Proposed Second Priority Bikeways				5.81		

* Upgrade from existing Class III Route to Class II Bike Lanes

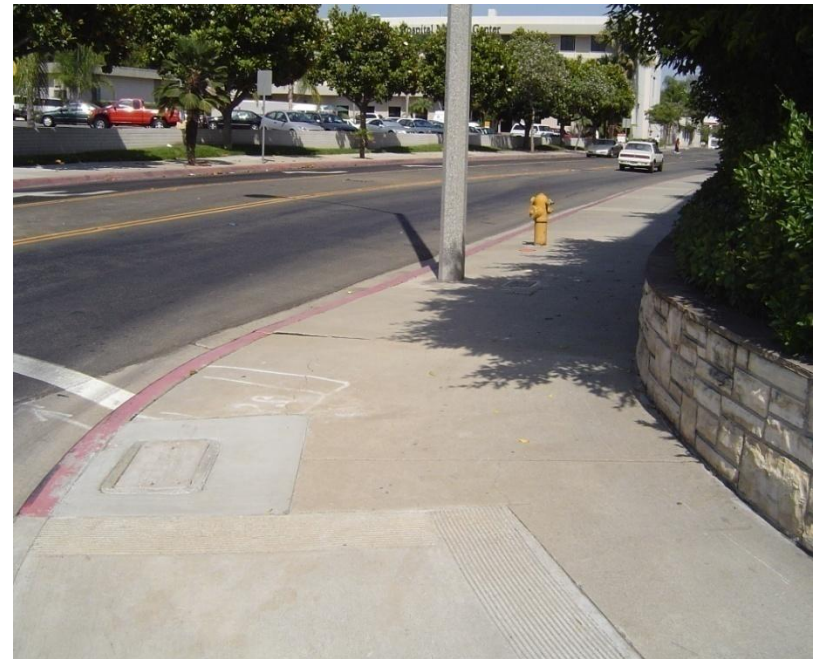
Future Bikeways and Upgrades – Second Priority page 1

- Beverly Boulevard from San Gabriel River Trail to Norwalk Boulevard looking West toward 605 Freeway and San Gabriel River Trail



Upgrade Class III bikeway with Complete Street installation of Class II Bike Lanes, median islands, curb extensions, bus shelters and sidewalks. This is to improve bikeway connection to the San Gabriel River Class I Bike Trail.

- Janine Drive from Colima Road to La Serna Drive



Designate as a Class III Bike Route to provide direct bikeway connection to Whittier Hospital Medical Center from Colima Road Class II and La Serna Drive Class III bikeways.

Future Bikeways and Upgrades – Second Priority page 2

- Leffingwell Road from Scott Avenue to Lambert Road



Upgrade of Class III Bike Route with the installation of Class II Bike Lanes.

- Norwalk Boulevard from Beverly Boulevard to South City Limits



Current Class III signed bikeway. Roadway widening and or removal of on-street parking would be required to facilitate the installation of Class II Bike Lanes.

Future Bikeways and Upgrades – Second Priority page 3

- Bogardus Avenue from Whittier Boulevard to Janine Drive



Installation of Class III Bikeway signing, “Share the Road” signs and Sharrow pavement legends.

- Santa Gertrudes Avenue from Janine Drive to West Road



Installation of Class III Bikeway signing.

Future Bikeways and Upgrades – Second Priority page 4

- West Road from Santa Gertrudes Avenue to East City Limits



Installation of Class III Bikeway signing to provide connection to future Class III Bikeway in the City of La Habra Heights.

- Whittier Boulevard from First Avenue to Bogardus Avenue



Installation of Class III Bikeway signing to connect Class II Bike Lanes on First Avenue to Class III bikeway on Bogardus Avenue.

Future Bikeways and Upgrades – Second Priority page 5

- Greenleaf Avenue from Beverly Boulevard to Orange Drive



Stripe Class II Bike Lanes from Beverly Boulevard to Orange Drive near Hellman Park.

- Lambert Road from Mills Avenue to Leffingwell Road



Upgrade Class III Bikeway with the installation of Class II Bike Lanes. Requires coordination with Los Angeles County to implement.

Table 7 – Bikeway Implementation Third Priorities

<i>Rank</i>	<i>Third Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>ADT Volume</i>	<i>Class</i>
1	Laurel Avenue	Starbuck Street	Mulberry Drive	0.75	8,100	II *
2	Jacmar Drainage Channel	Whittier Greenway Trail E/O Laurel Ave.	Oak Street	0.38	N/A	I
Total Miles of Proposed Third Priority Bikeways				1.13		

* Upgrade from existing Class III Route to Class II Bike Lanes

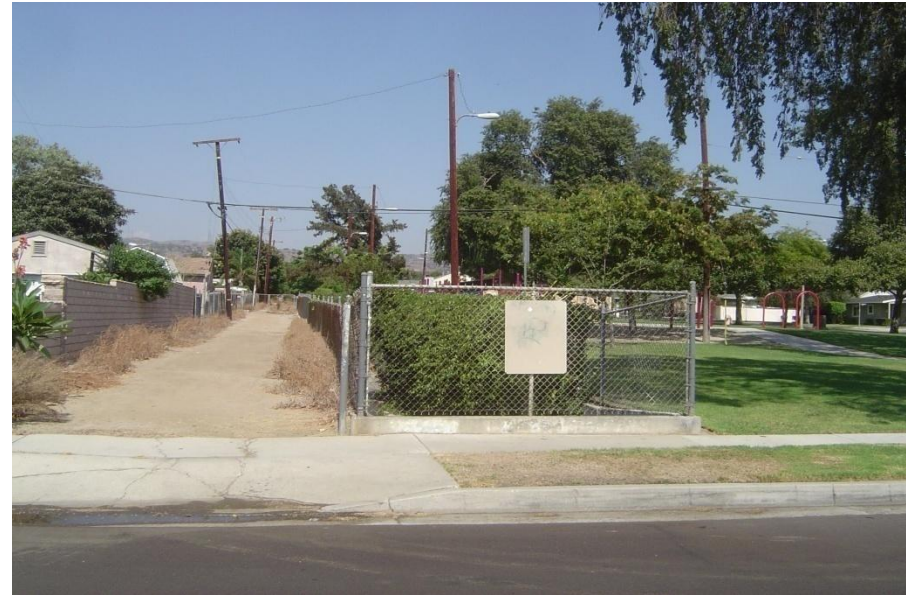
Future Bikeways and Upgrades – Third Priority

- Laurel Avenue from Starbuck Street to Mulberry Drive



Upgrade Class III Bike Route with Class II Bike Lanes where feasible. May require the implementation of on-street parking restrictions as well as coordination with Los Angeles County.

- Jacmar Drainage Channel from Whittier Greenway Trail between Laurel Avenue and Calmada Avenue northward to Oak Street



Construct Class I Bikeway connection from the Whittier Greenway Trail to Laurel Park and Oak Street. Requires coordination and access agreement with the Los Angeles County Flood Control District.

(k) Past Expenditures and Future Needs

In the final analysis, it is the ability of the City to fund the proposed bikeway system improvements that will determine whether such a network will materialize. Phasing strategies, prioritization of projects, and funding sources will all play a role in the City's advancement of this plan.

Funding Sources

The potential sources of funds for the bikeway system include Metropolitan Transportation Authority and State Bicycle Transportation Account (BTA) grants, City General Fund, County, Special District, State, and Federal sources. Several bikeway improvements were able to be implemented in conjunction with roadway resurfacing projects utilizing ARRA Recovery Act, Gas Tax B, Proposition 1B and Traffic Congestion Relief funding. Private sector funding for bicycle parking and other amenities may be required for large-scale development projects. Additionally, joint participation and funds from adjoining cities and Los Angeles County for projects on a regional scale may also be an implementation resource.

Bikeway Implementation Cost Estimates

Cost estimates for implementation of the entire bikeway plan vary depending the design features, materials, width, facilities (i.e. benches, street lights), concrete or asphalt. A 10-foot wide trail could range between \$500,000 to \$2,000,000 million a mile depending on the detailed design. Estimated project costs were based upon the follow unit costs:

Class II striping - \$3,500/mile

Class II and III signage - \$250/sign placed from 300-foot to 1000-foot intervals

These estimates reflect the installation as well as the annual striping maintenance costs. Signs would need to be replaced on an every 10 years basis. These costs must be added to special costs such as sandblasting, ramping or other specific features that might be added in each individual situation. Labor costs are included in these projections. The City of Whittier goal is to implement a majority of the bikeway improvements identified in this 2013 BTP within the next 5-years.

Table 8 – High Priority Bikeway Implementation Cost Estimates and Funding Sources

Priorities are based upon priority and criteria scores, City Council Priorities and funding availability.

<i>Rank</i>	<i>High Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>Cost Estimates</i>	<i>Class</i>
1	East Extension of the Whittier Greenway Trail	Mills Avenue	East City Limits	2.80	\$5,600,000	I
2	Whittier Boulevard	San Gabriel River Trail	Pio Pico Mansion	0.15	\$300,000	I
3	Beverly Boulevard	San Gabriel River Trail	Norwalk Boulevard	0.83	\$1,242,500	II
4	Workman Mill Road	Beverly Boulevard	North City Limits	0.36	\$18,000	II
5	Santa Fe Springs Road	Mulberry Drive	Whittier Greenway Trail	1.04	\$51,500	II
6	Washington Avenue	Walnut Street	Penn Street	0.25	\$6,000	II
7	Washington Boulevard	Whittier Greenway Trail	Lambert Road	0.38	\$18,500	II
8	Starbuck Street	Portada Drive	Santa Gertrudes Ave.	0.15	\$6,000	II
9	Hadley Street	Whittier Greenway Trail	Comstock Avenue	0.57	\$150,000	III
10	Comstock Avenue	Mar Vista Street	Penn Street	0.11	\$2,500	III
Total Miles of Proposed High Priority Bikeways				6.64		

Federal SAFETEA-LU Grant is available for acquiring the Right-of-Way for the Eastern Extension of the Whittier Greenway Trail. The City is seeking additional funding for the design and construction portions of the project.

Federal Grant is available for the design and construction of the Class I Bikeway connection from the San Gabriel River Bike Trail to the Pio Pico State Historic Park.

Federal Highway Safety Improvement Program (HSIP) Grant will be use to construct Complete Street Transit, Bike and Pedestrian Safety and Lighting Improvements along Beverly Boulevard from the I-605 Freeway to Norwalk Boulevard.

State of California Bicycle Transportation Account (BTA) Grant is available to fund the upgrade of Class III Bike Routes to Class II Bike Lanes as well as upgrade bikeway signing to current CA MUTCD standards Citywide.

Majority of the indentified High Priority Bikeway Improvements will be implemented utilizing these funding sources.

Table 8 – Second Priority Bikeway Implementation Cost Estimates and Funding Sources

Priorities are based upon priority and criteria scores, City Council Priorities and funding availability.

<i>Rank</i>	<i>Second Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>Cost Estimates</i>	<i>Class</i>
1	Greenleaf Avenue	Beverly Boulevard	Orange Drive	0.11	\$8,000	II
2	Bogardus Avenue	Whittier Boulevard	Janine Drive	0.21	\$6,000	III
3	Santa Gertrudes Avenue	Janine Drive	West Road	0.21	\$2,500	III
4	West Road	Santa Gertrudes Ave.	City Limits	0.30	\$2,500	III
5	Leffingwell Road	Scott Avenue	Lambert Road	0.66	\$50,000	II
6	Lambert Road	Mills Avenue	Leffingwell Road	1.97	\$362,500	III
7	Broadway	Whittier Boulevard	Western Avenue	0.15	\$27,500	II
8	Norwalk Boulevard	Beverly Boulevard	South City Limits	1.10	\$600,000	II
9	Whittier Boulevard	First Avenue	Bogardus Avenue	0.06	\$2,500	III
10	Janine Drive	Colima Road	La Serna Drive	0.21	\$3,000	III
Total Miles of Proposed Second Priority Bikeways				4.98		

Federal Highway Safety Improvement Program (HSIP) Grant will be use to install the Class II Bike Lanes on Broadway.

State of California Bicycle Transportation Account (BTA) Grant is available to fund the upgrade of Class III Bike Routes to Class II Bike Lanes as well as upgrade bikeway signing to current CA MUTCD standards Citywide.

Majority of the indetified Second Priority Bikeway Improvements will be implemented utilizing these funding sources with the exception of Norwalk Boulevard due to its implementation constraints at this time.

Table 8 – Third Priority Bikeway Implementation Cost Estimates and Funding Sources

<i>Rank</i>	<i>Third Priority Bikeways</i>	<i>From (Street Name)</i>	<i>To (Street Name)</i>	<i>Length (Miles)</i>	<i>Cost Estimates</i>	<i>Class</i>
1	Laurel Avenue	Starbuck Street	Mulberry Drive	0.69	\$17,100	II
2	Jacmar Drainage Channel	Whittier Greenway Trail	Oak Street	0.38	\$760,000	I
Total Miles of Proposed Third Priority Bikeways				1.07		

No funding source has been indentified for the implementation of these Third Priority Bikeway Improvements at this time.