

CITY OF BELL BICYCLE MASTER PLAN

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TABLE OF CONTENTS

Executive Summary	5
Vision	5
Goals	5
Plan Overview	5
Chapter 1: Existing Conditions	6
Land Use and Settlement Patterns	6
Demographics and Access to Vehicles	10
Attractors and Generators	10
Existing Transportation Network	11
Additional Transportation Services	12
Existing Bikeway Network	12
Traffic Calming	12
Planned Bikeways in Bell	17
Planned Bikeways in Adjacent Jurisdictions	18
Current Activity Levels	21
Future Activity Levels	21
Estimated Benefits	22
Bicycle-Involved Collision Analysis	26
Chapter 2: Community Outreach	31
Community Survey	31
Bicycle Audit	32
Community events	33
Chapter 3: Infrastructure Recommendations	36
Recommended Bikeway Projects	36
Recommended Citywide Projects	38
Chapter 4: Program Recommendations	47
Education	47
Encouragement	48
Enforcement	51
Evaluation	52
Chapter 5: Implementation Plan	53
Project Evaluation Strategy	53
Unit Cost Assumptions	53
Priority Projects Summary	54
Priority Project Example: Randolph Street	55
Bikeway Maintenance Costs	59

Appendices60

Appendix A: ATP Compliance Checklist60

Appendix B: Existing policies and plans62

Appendix C: Funding Sources 71

LIST OF FIGURES

Figure 1-1: City of Bell Land Use..... 7

Figure 1-2: City of Bell Land Use Map (General Plan 2010)..... 9

Figure 1-3: Existing Sustainable Transportation Network..... 13

Figure 1-4: Existing Traffic Calming Devices 15

Figure 1-5: Planned Bikeways in Bell 19

Figure 1-6: Bicycle-Involved Collisions (2009-2013).....27

Figure 2-1: Excerpt of Community Survey 31

Figure 2-2: Bicycle Audit Route.....32

Figure 3-1: Standard Class I Bike Path (Caltrans)36

Figure 3-2: Standard Class II Bike Path (Caltrans)36

Figure 3-3: Standard Class III Bike Path (Caltrans).....36

Figure 3-4: Standard Class IV Bike Path (Caltrans)37

Figure 3-5: Bicycle Wayfinding Examples38

Figure 3-6: Recommended Bikeway Projects..... 41

Figure 3-7: Types of Bike Racks.....43

Figure 3-8: Recommended Bike Parking Locations45

Figure B-1: Metro Rail to River Proposed Alignments68

LIST OF TABLES

Table 1-1: Educational / Public Facilities in Bell	10
Table 1-2: Planned Bikeways in Bell	17
Table 1-3: Planned Bikeways in Adjacent Jurisdictions	18
Table 1-4: Journey to Work Mode Share (Percent) Compared to National, State, and County	21
Table 1-5: Estimated Annual Health Benefits	22
Table 1-6: Estimated Annual Environmental Benefits	23
Table 1-7: Estimated Annual Transportation Benefits	24
Table 1-8: Estimated Total Annual Benefits	25
Table 1-10: Bicycle-Involved Collision Summary	26
Table 1-9: Bicycle-Involved Collisions by Year	26
Table 1-12: Bicycle-Involved Collisions by Time of Day	29
Table 1-13: Bicycle-Involved Collisions by Type	29
Table 1-11: Highest Bicycle-Involved Collision Roadways	29
Table 1-14: Bicycle-Involved Collisions by Violation Category	30
Table 2-1: Public Meetings Information	35
Table 2-2: Focus Groups Information	35
Table 3-1: Summary of Recommended Bikeways by Class	37
Table 3-2: Recommended Bikeway Projects	39
Table 3-3: Guidelines for Bicycle Parking Location and Quantities	43
Table 3-4: Recommended Bicycle Parking Locations	44
Table 3-5: Suggested School and Private Property Bicycle Parking	44
Table 5-6: Unit Cost Assumptions	53
Table 5-7: Estimated Cost Summary by Tier and Project Type	54
Table 5-8: Tier 1 Priority Project List	57
Table 5-9: Tier 2 Priority Project List	58
Table 5-10: Bikeway Maintenance Cost Estimates	59
Table A-1 City of Bell Municipal Code	60
Table B-1: Relevant Planning & Policy Documents Reviewed	62
Table B-2: City of Bell Municipal Code	63
Table B-3: City of Bell General Plan	65
Table B-4: California Green Building Code Bicycle-Related Requirements	68

EXECUTIVE SUMMARY

VISION

The City of Bell is a safe, active and healthy community with an effective bikeway network that provides a convenient mobility option for people of all ages and abilities.

GOALS

The City of Bell aims to become a safe, healthy and active community by integrating an effective bicycle network into its existing transportation network. The plan attempts to create safer and active streets that provide convenient and attractive ways for people of all ages to navigate throughout Bell sustainably. Within this plan, the following goals prioritize principles that are consistently supported throughout this plan.

- Goal 1: Improve bicycle safety
 - Decrease the number of collisions
 - Decrease the severity of collisions
 - Maintain bikeways clear of barriers
 - Increase bicycle safety education programs
 - Enforce bicycle safety laws for bicyclists and drivers
- Goal 2: Increase bicycling
 - Increase mode share percentage
 - Increase the number of trips
 - Implement encouragement programs
 - Create a safe and connected bikeway network
- Goal 3: Promote community health
 - Create a bikeway network that facilitates physical activity
 - Create connectivity to community assets (parks, school, riverbed, etc.)
 - Cultivate community identity

PLAN OVERVIEW

This Plan serves as a primary planning guide that informs future active transportation growth. The Bell Bicycle Master Plan provides detailed recommendations for infrastructure, policies and programs that promote safe bicycling in the City of Bell. It establishes city priorities, directs allocation of infrastructure and program resources, and guides implementation of a sustainable bikeway network.

The purpose of this Bicycle Master Plan is to identify improvements to the bicycling environment in the City of Bell by providing recommendations for bikeways and bicycle support facilities as well as education, encouragement, enforcement, and evaluation programs.

CHAPTER 1: EXISTING CONDITIONS

The implementation of bicycle facilities and programs in the City of Bell will create a bicycle-friendly environment and thereby encourage people who live, work, and play to bicycle more frequently. This will subsequently lower greenhouse gases (GHG) and create a healthier environment for residents and visitors alike.

This chapter evaluates existing land use, transportation networks, activity levels, collision patterns, and the benefits of bicycling.

Topics include:

- Land Use and Settlement Patterns
- Existing Transportation Network
- Existing Bikeway Network
- Planned Bikeway Network
- Traffic Calming
- Current Activity Levels
- Future Activity Levels
- Health Benefits
- Environmental Benefits
- Transportation Benefits
- Bicycle-Involved Collision Analysis



Cyclists in Bell often ride on the sidewalk instead of the street due to lack of infrastructure.

LAND USE AND SETTLEMENT PATTERNS

The City of Bell is located within Los Angeles County, approximately 10 miles southeast of Downtown Los Angeles. Bell is bordered by six neighboring cities: Maywood, Vernon, Huntington Park, Cudahy, Bell Gardens, and Commerce. Among these neighbors, only Huntington Park has adopted a Bicycle Master Plan.

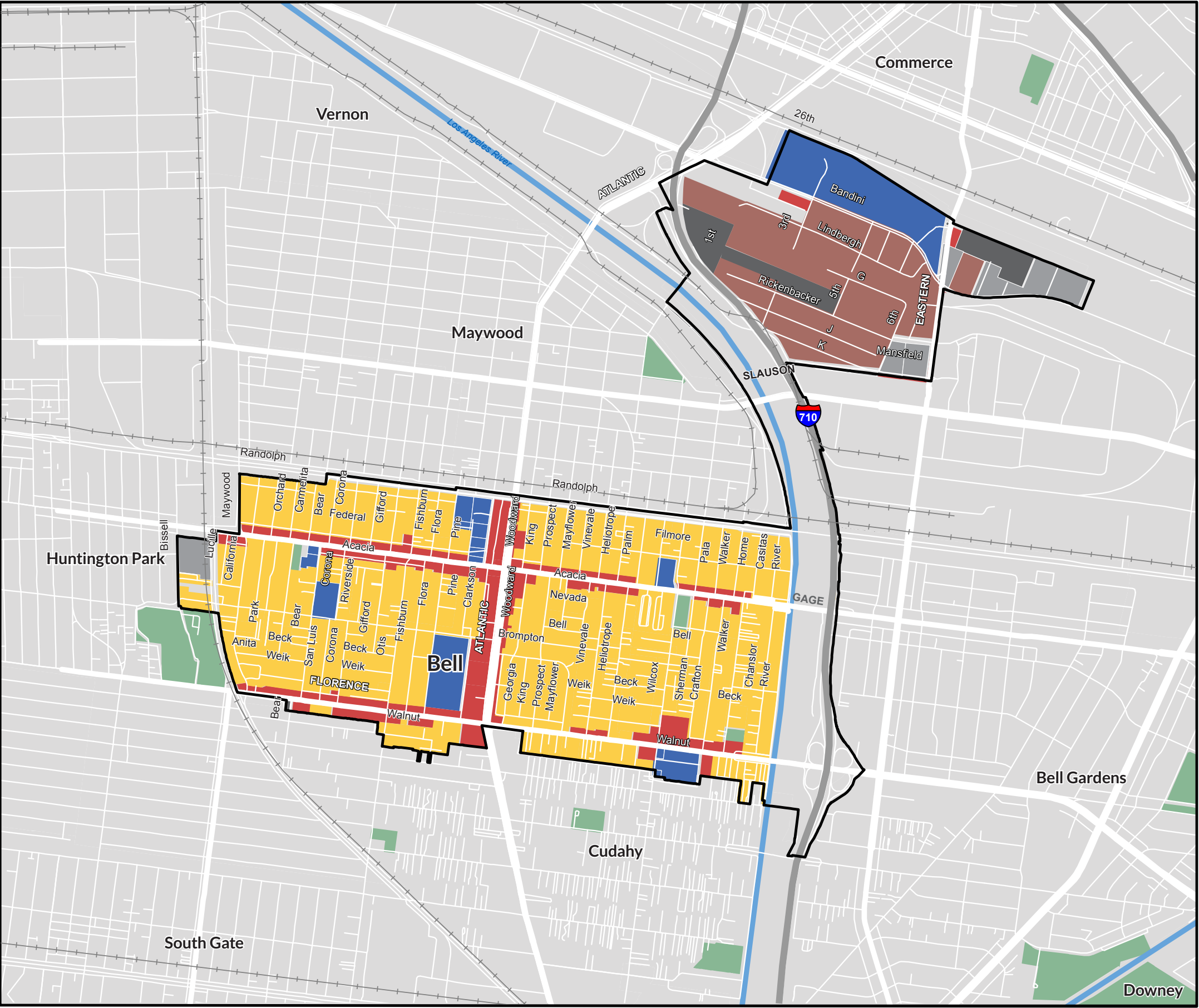
The City of Bell is bisected by the Los Angeles River, a primary regional connection for active transportation. The segmentation created by the river forms two district areas: the Central City, containing the City's main residential and commercial areas, and the Cheli Industrial Area. Central City's land uses create a suitable built environment to accommodate bicycle infrastructure, such as separated bikeways on commercial streets or local street bikeways on residential streets, while the Cheli Industrial Area is developed exclusively with industrial uses.

As shown in Figure 1-1, Bell has a diverse land use mix that can be divided into three categories of roughly equal size: residential, business, and right-of-way. Thirty-four percent of land is dedicated to residential uses (of which 30 percent is multi-family and four percent is single-family). A further 30 percent of land is for business purposes (22 percent industrial and eight percent commercial). The remaining 36 percent of land consists of city streets, vacant lots, the I-710 Freeway, and the Los Angeles River. Figure 1-2 shows Bell land use as defined in the General Plan.

A large number of residential neighborhoods in the city are zoned for higher densities, which have been developed accordingly. In fact, Bell is one of the few cities within Los Angeles County with a higher population density than the County average. The city has more than 14 thousand persons per square mile, almost six times the density of the County. The high density and consistent grid of the Central City create appropriate conditions for bicycling and walking.

¹2009-2013 American Community Survey five-year estimates.

²2000 United States Census.



Land Use
City of Bell Bicycle Master Plan

- Bell boundary
- Railroad Line
- Central City Land Uses**
 - Commercial
 - Educational/Public Facilities
 - Residential
 - Park or Open Space
 - Light Industrial

- Cheli District Land Uses**
 - Commercial
 - Educational/Public Facilities
 - Heavy Industrial/Truck Terminals
 - Light Industrial
 - Wholesaling and Warehousing



Figure 1-1: City of Bell Land Use

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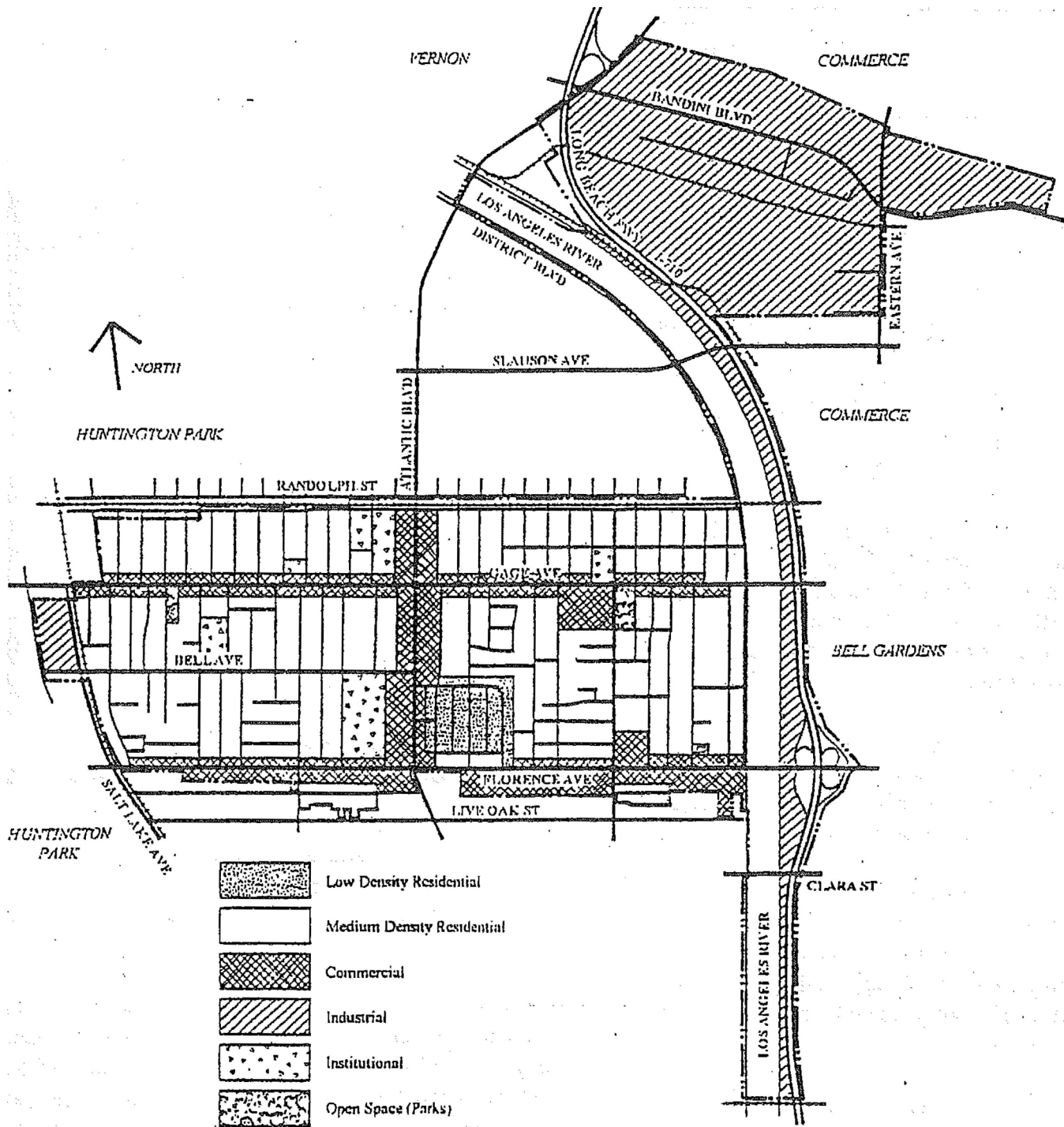


Figure 1-2: City of Bell Land Use Map (General Plan 2010)

DEMOGRAPHICS AND ACCESS TO VEHICLES

Bell is a mid-sized city with an estimated population of 35,948¹ - down slightly from its 2000 population of 36,404². The City's median age is 28.9 years old. In 2010, the average household size in Bell was four persons and most households had at least one (37 percent) or two (35 percent) vehicles available. Only 11 percent of households reported having zero vehicles available.

ATTRACTORS AND GENERATORS

The vast majority of attractors in Bell are located in the Central City. Commercial, institutional, and other public land uses are scattered throughout the Central City. These include the Bell High School, the Bell Library, the Bell Civic Center, six City parks, three elementary schools, and a number of churches.

Table 1-1 lists the public schools and public facilities in Bell. In both cases, these facilities tend to be located in the historic downtown, especially along Gage Avenue between Atlantic Avenue and Otis Avenue.

Table 1-1: Educational / Public Facilities in Bell

Facility	Address
Bell High School	4328 Bell Avenue
Corona Avenue Elementary School	3825 Bell Avenue
Nueva Vista Elementary School	4412 Randolph Street
Woodlawn Avenue Elementary School	6314 Woodlawn Avenue
Martha Escutia Primary Center	64010 Bear Avenue
Magnolia Science Academy (Charter Middle)	6411 Orchard Avenue
Bell Library	4411 E. Gage Avenue
Ernest Debs Park	3700 E. Gage Avenue
Technology Center	4357 E. Gage Avenue
Bell Police Department	6326 Pine Avenue
Los Angeles County Fire Department Station 163	6320 Pine Avenue
Bell City Hall	6330 Pine Avenue
Bell Community Center	6250 Pine Avenue
Verterans' Memorial Park	6500 Wilcox Avenue



People wait for a Metro bus to come in Bell.

¹2009-2013 American Community Survey five-year estimates.

²2000 United States Census.

EXISTING TRANSPORTATION NETWORK

The roadway system in the city has been defined in the General Plan using a classification system which describes a hierarchy of facility types. The categories are:

- Freeways
- Arterials
- Collectors
- Local Streets

These are described in detail in the following subsections.

Local Connections

The primary circulation system in the City of Bell consists of local streets and arterial roadways. Arterials include Atlantic Boulevard, Gage Avenue, Florence Avenue, Slauson Avenue, Eastern Avenue, and Bandini Boulevard. Trucks are prohibited on Bell's residential streets and are restricted to major roadways. Three roadways cross the Los Angeles River: Florence Avenue, Randolph Street, and Slauson Avenue. There is a third river crossing, Gage Avenue, but it serves only rail traffic. Clara Street and Atlantic Boulevard are nearby crossings but they are not within city boundaries.

Regional Connections

Bell's location near the population center of Los Angeles County lends itself to convenient access to regional transportation routes. Bell is proximate to the I-5 and I-710 Freeways, the Metrolink Orange County and Riverside Lines (Commerce and Montebello/Commerce Stations), and the Metro Blue Line (Slauson and Florence Stations). It is also served by the Metro Rapid 762 line, which runs along Atlantic Avenue with stops at Gage Avenue and Florence Avenue. Existing regional active transportation connections include bicycle paths on the Los Angeles River and the Rio Hondo.

Several routes on the countywide Regional Active Transportation Network, a spine network developed as part of the ongoing Metro Active Transportation Strategic Plan, serve Bell. These include the Los Angeles River bicycle path and Salt Lake Avenue/Union Pacific Right of Way. There are also routes currently under study as part of the Rail to River Active Transportation Corridor, Slauson Avenue and Randolph Street (Southern Pacific ROW). There are two more potential Rail to River alignments, but they are not within Bell city limits.



Cyclist in a Bell intersection

ADDITIONAL TRANSPORTATION SERVICES

The City of Bell is served by eight Metro Local bus lines. Seniors, people with disabilities, and students are eligible to purchase monthly passes for a subsidized rate. In addition, Bell offers one shuttle service, La Campana, to get around the City and major destinations in neighboring cities. The one-way cost of La Campana is 50 cents. Two other on-demand transportation services are also offered: Dial-A-Cab and Dial-A-Ride. Dial-A-Ride is a bus that takes registered participants to and from destinations within the City for free. Dial-A-Cab is a transportation program which takes senior citizens and persons with qualifying disabilities to and from medical facilities within the City of Bell.

EXISTING BIKEWAY NETWORK

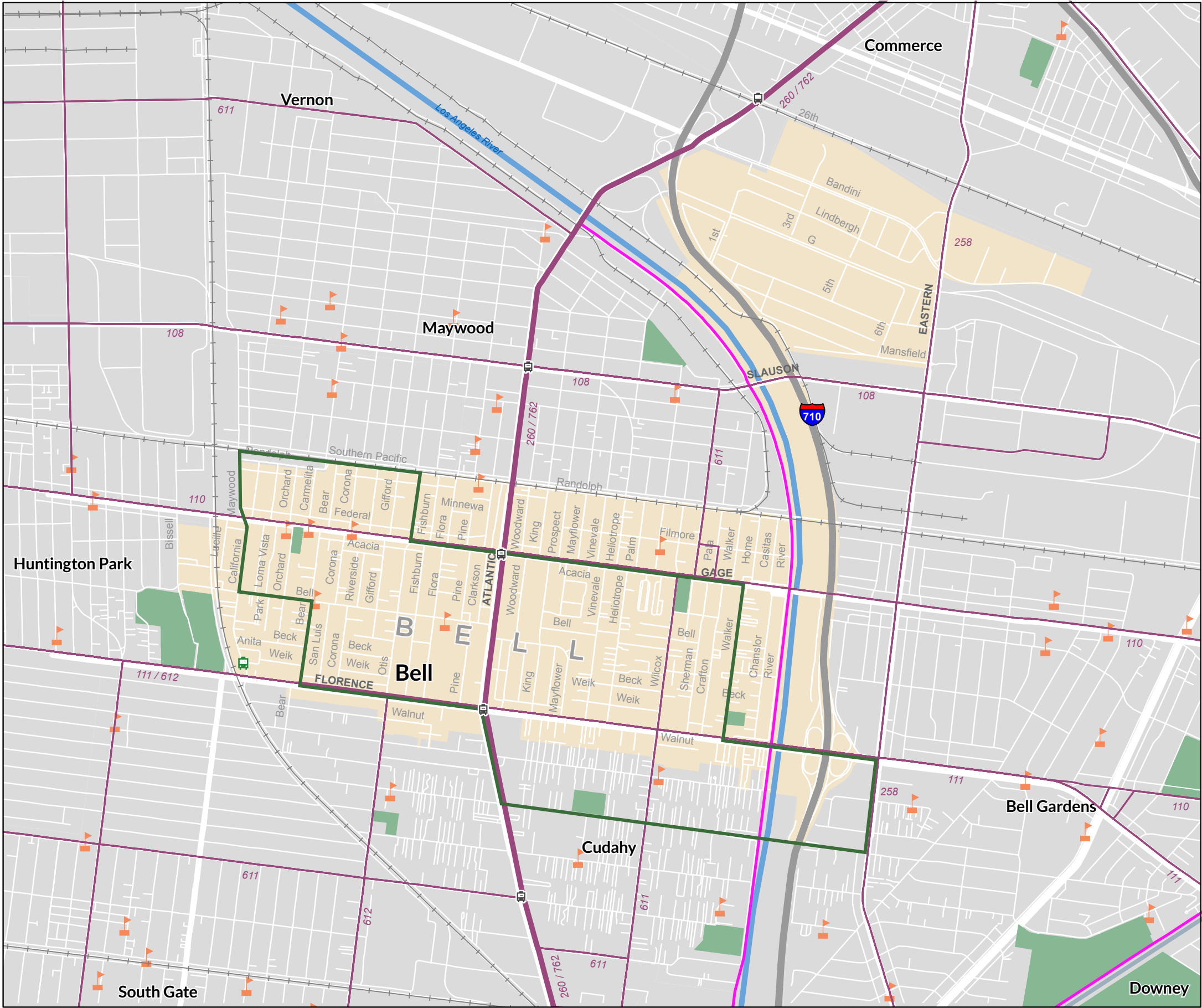
There has been no known public investment in bicycle facilities in the City of Bell. As shown in Figure 1-3 on page 13, the only existing bikeway in Bell is the 1.8-mile Los Angeles River bicycle path. Running along the west side of the Los Angeles River, the path spans the entire length of the channel within the City of Bell, from just south of Heliotrope Avenue to just south of Florence Avenue. The path originates approximately one half-mile north of Bell city limits at Atlantic Boulevard. On the south end, the path continues as far as Long Beach. The City of Bell maintains the Los Angeles River path and contracts out a daily maintenance and graffiti removal service.

TRAFFIC CALMING

The City of Bell has numerous motor vehicle traffic calming devices throughout the city, including traffic diverters, speed bumps, and chicanes. The city also has posted 25 mph speed limits on most local streets. These traffic calming devices help to address resident concerns about traffic issues in residential neighborhoods, particularly issues of speeding and cut-through traffic, and indicate a commitment by the city to provide safer neighborhoods. Although traffic calming devices are not bicycle-specific infrastructure, they help to create and maintain low-stress travel conditions for bicycling by reducing the speed or volume of motor vehicle traffic. Streets with existing traffic calming are candidates for further local street bikeway improvements. Figure 1-4 on the following page shows the geographic location of these traffic calming devices in the City of Bell.



Los Angeles River bicycle path



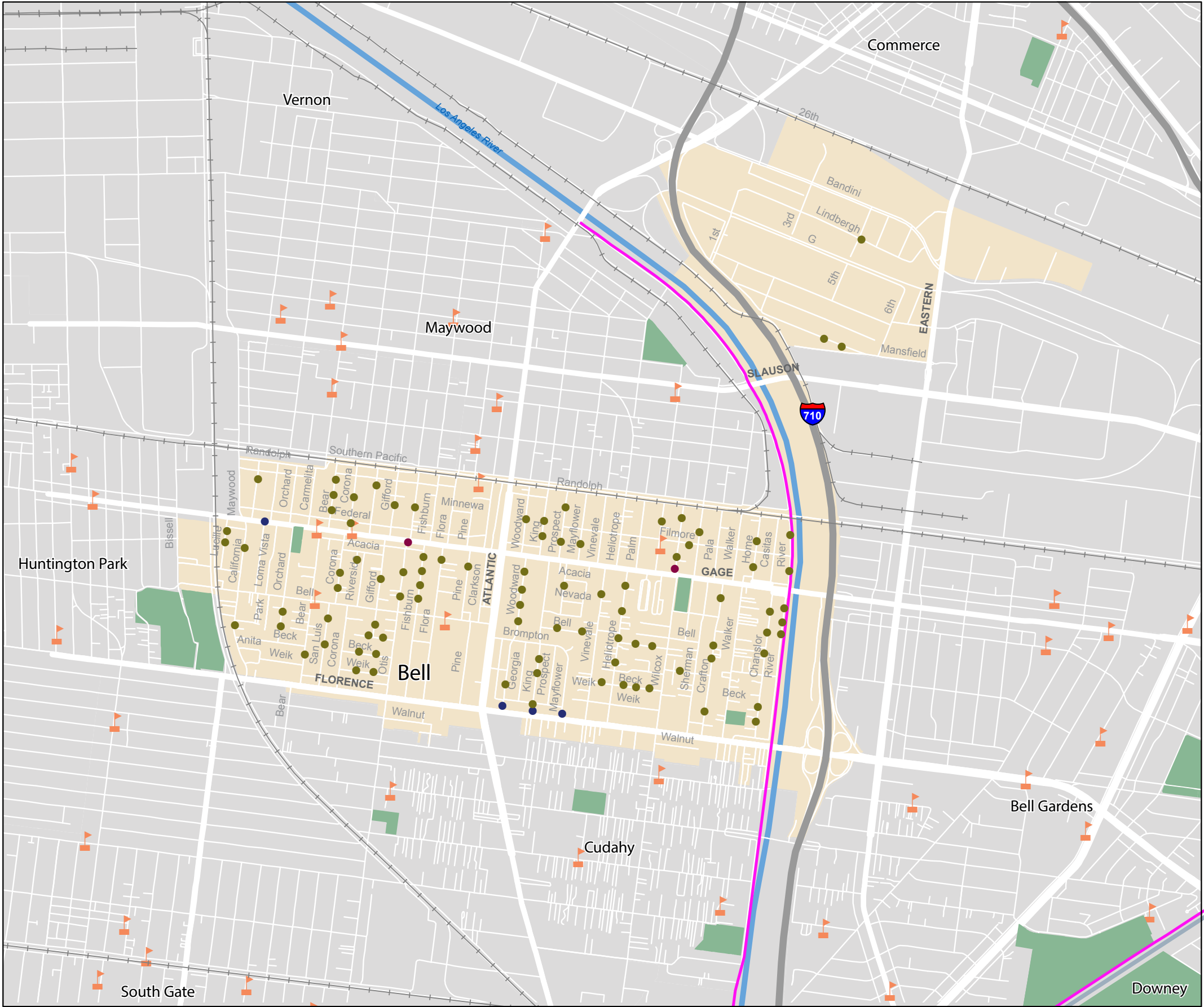
Existing Sustainable Transportation Network
City of Bell Bicycle Master Plan

- Park or Open Space
- Bell City Limits
- Railroad Line
- School
- Bikeways**
 - Class I Shared-Use Path
- Public Transit**
 - Metro Rapid Stop
 - Metro Rapid
 - Metro Local
 - La Campana Shuttle
 - Planned Eco-Rapid Transit Station



Figure 1-3: Existing Sustainable Transportation Network

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Existing Traffic Calming
City of Bell Bicycle Master Plan

- Park or Open Space
- Bell City Limits
- Railroad Line
- School

Bikeways

- Class I Shared-Use Path

Traffic Calming

- Speed Bump
- Traffic Diverter
- Chicane



Figure 1-4: Existing Traffic Calming Devices

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PLANNED BIKEWAYS IN BELL

Although the City of Bell has not previously developed a plan for its bikeway network, several regional planning efforts have proposed bikeways within the City, such as the Metro Active Transportation Strategic Plan, Metro's Rail to River Study, and the Gateway Cities Strategic Transportation Plan. Proposals include:

- Two routes on the countywide Regional Active Transportation Network (a spine network developed as part of the ongoing Metro Active Transportation Strategic Plan) serve Bell. These are the Los Angeles River bicycle path and the Union Pacific Railroad on Salt Lake Avenue.
- The Regional Active Transportation Network also includes four potential bikeways that are part of Metro's Rail to River Study. One of the four alternatives will be added to the Regional Active Transportation Network after the preferred alignment is selected. Although only one of the four Rail to River Study alignments goes through the City of Bell, it is one of the strongest candidates (the Southern Pacific Railroad ROW along Randolph Street).
- The Gateway Cities Strategic Transportation Plan identified four regionally significant bicycle projects within the City of Bell: Slauson Avenue, the West Santa Ana Branch (Union Pacific ROW), Gage Avenue and Florence Boulevard.

These planned bikeways are mapped in Figure 1-5 on page 19 and listed in Table 1-2. Planned bikeways appearing in more than one regional plan, such as the Los Angeles River Path, are identified with an asterisk.

Table 1-2: Planned Bikeways in Bell

Street	Facility Type	Source Plan	Mileage
West Santa Ana Branch Corridor*	Off-Street (Class I)	Metro Active Transportation Strategic Plan	0.25
Randolph Street	Off-Street (Class I)	Metro Rail to River Feasibility Study	1.6
Slauson Avenue	Dedicated On-Street (Class II)	Gateway Cities Strategic Transportation Plan	0.2
Florence Avenue	Shared On-street (Class III)	Gateway Cities Strategic Transportation Plan	2.0
Gage Avenue	Shared On-street (Class III)	Gateway Cities Strategic Transportation Plan	2.1
Total			4.6– 6.2*

PLANNED BIKEWAYS IN ADJACENT JURISDICTIONS

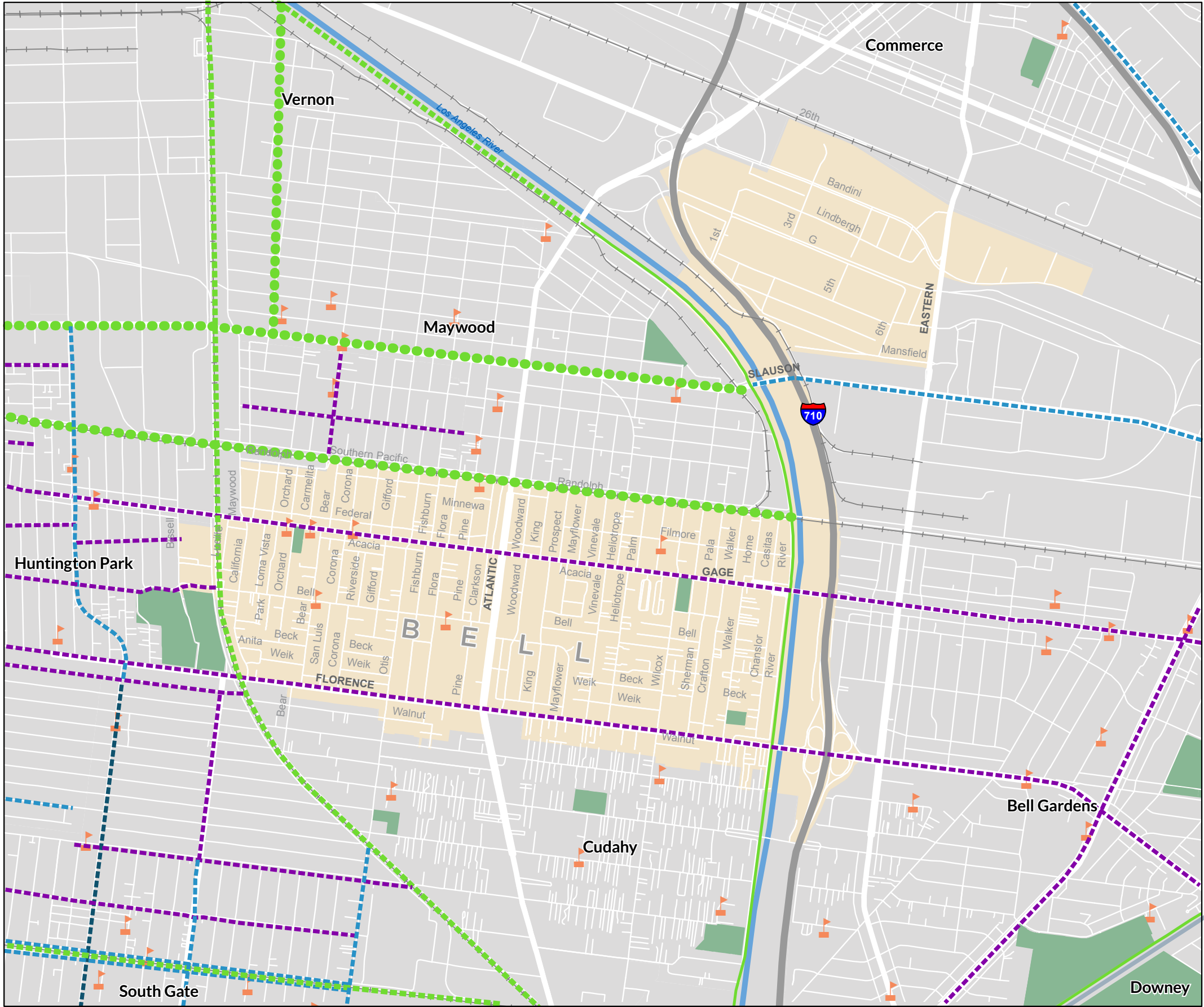
Among Bell's municipal neighbors, the City of Los Angeles and the City of Huntington Park have adopted bicycle transportation plans. These individual plans are supplemented by regional plans, including those described in the preceding section. Metro and the Gateway Cities Council of Governments also adopted active transportation plans relevant for the city. However, none of the planned bikeways have been built. Table 1-3 shows planned bikeways in adjacent jurisdictions on streets that intersect the City of Bell and could help to create a stronger regional connection. Planned bikeways in adjacent jurisdictions are also shown in Figure 1-5 on the following page.

Table 1-3: Planned Bikeways in Adjacent Jurisdictions

Street	Facility Type	Mileage
Carmelita Avenue	Class III	0.4
Florence Avenue	Class III	13.5
Gage Avenue	Class III	6.4
Randolph Street	Class I	4.4
Salt Lake Avenue	Class I	9.8
Slauson Avenue	Class II	11.5



People find solutions when bike parking is missing.



Currently Planned Bikeway Network *City of Bell Bicycle Master Plan*

Local and Regional Plans

Existing	Proposed	
		Class I Shared-Use Paths
		Class II Bicycle Lanes
		Class II Colored/Buffered Bicycle Lanes
		Class III Bicycle Routes

Feasibility Study

Rail to River Study Alternatives

Amenities

	Park or Open Space
	Bell City Limits
	Railroad Line
	School



Figure 1-5: Planned Bikeways in Bell

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CURRENT ACTIVITY LEVELS

There are 263 daily bicycle commuters in the City of Bell. As Table 1-4 shows, this represents a 1.6 percent mode share – significantly higher than national, statewide, and county averages. Walking and public transit are also more prevalent in Bell than at the national and state level – close to average Los Angeles County rates. Drive alone trips are lower than county, state, and national averages, while carpool trips are higher. These statistics suggest that, even with limited networks in place, conditions in Bell are conducive to active transportation.

Table 1-4: Journey to Work Mode Share (Percent) Compared to National, State, and County

Mode	Nationwide	Statewide	Los Angeles County	City of Bell
Bicycle	0.6	1.1	0.9	1.6
Walk	2.8	2.7	2.9	3.7
Public Transit	5.0	5.3	7.1	6.8
Drive Alone	76.3	73.2	72.4	72.3
Carpool	9.8	11.1	10.6	11.8
Other	1.2	1.3	1.2	0.5
Worked from Home	4.3	5.3	5.0	3.3

FUTURE ACTIVITY LEVELS

Bicycle commuting in Bell is expected to increase over time with increased bicycle infrastructure, and this growth will produce a number of benefits in the community. To estimate the extent of community benefits, three alternative future bicycle mode share scenarios are presented in this section. They are as follows:

- Mid – Four percent (150 percent increase in bicycle commuters)
- High – Seven percent (338 percent increase in bicycle commuters)
- Very High – Ten percent (525 percent increase in bicycle commuters)

Achieving these mode share targets will result in benefits to community health, environment, and transportation by shifting trips from private motor vehicle to bicycle. The benefits associated with each vehicle removed from the roadway system can be quantified with greater benefits associated with fewer vehicles. The following section summarizes the health, environment, and transportation benefits that the City of Bell would receive given the three aforementioned future bicycle transportation scenarios.

³US Census, American Community Survey, five-year estimates (2009-2013).

⁴US Census, American Community Survey, five-year estimates (2009-2013).

⁵US Census, American Community Survey, five-year estimates (2009-2013).

⁶Forecasted future bicycle commute mode split set by the City of Bell as aspirational values.

ESTIMATED BENEFITS

Health Benefits

The implementation of a well-designed, connected bicycle network across Bell will encourage a shift from energy-intensive modes of transportation, such as cars and trucks, to active modes of transportation, such as bicycling. The Benefit Impact Model evaluated and quantified the estimated increase in bicycling trips, the estimated increase in hours of physical activity, and the annual savings resulting from reduced healthcare costs. The primary inputs into the health component of the Benefit Impact Model derived from 2009-2013 ACS journey to work data, 2009 National Household Travel Survey, and historic Safe Routes to School data. Existing bicycle commute data was multiplied by national trip purpose ratios to generate mode split data that includes all trip purposes.

If Bell's bicycle commute mode share increases to the one of the three aspirational mode share levels, the City would experience between 1,226,000 and 4,321,000 more bicycling trips per year and between 1,664,000 and 5,864,000 miles bicycled per year, resulting in 1,105,000 to 3,896,000 fewer vehicle-miles traveled (VMT) annually. These annual distance estimates and VMT reduction estimates were used to calculate changes in physical activity rates among residents in Bell. Achieving a four to ten percent bicycle commute mode share would result in between 166,000 and 586,000 more hours of physical activity per year among Bell residents. This potential increase in physical activity would result in between 1,200 and 4,500 more residents meeting the Centers for Disease Control and Prevention's guidelines for the minimum recommended number of hours of physical activity per day, which is equal to a jump from approximately 4.1 percent of the regional physical activity need being met from bicycling to between 7.7 and 16.7 percent of the regional physical activity need being met. This growth in the percent of people within the city exercising also equates to a \$51,000 to \$181,000 reduction in healthcare expenses per year. Table 1-5 summarizes the annual health benefits for Bell.

Table 1-5: Estimated Annual Health Benefits

	Future Estimates							
	Baseline		Mid		High		Very High	
	Total	Total	Difference	Total	Difference	Total	Difference	
Annual Trips	838,000	2,064,000	1,226,000	3,611,000	2,773,000	5,159,000	4,321,000	
Annual Miles	1,896,000	3,560,000	1,664,000	5,660,000	3,764,000	7,760,000	5,864,000	
Annual Hours of Physical Activity	190,000	356,000	166,000	566,000	376,000	776,000	586,000	
Rec. Physical Activity Minimum Met	1,500	2,700	1,200	4,400	2,900	6,000	4,500	
Regional Physical Activity Need Met	4.1%	7.7%	3.6%	12.2%	8.1%	16.7%	12.6%	
Healthcare Cost Savings	\$35,000	\$86,000	\$51,000	\$151,000	\$116,000	\$216,000	\$181,000	

Environmental Benefits

The Benefit Impact Model evaluated and quantified the estimated increase in bicycle trips and the annual savings from reduced vehicle emissions. In order to evaluate these environmental factors, a number of readily-available data inputs were analyzed. Using the estimates of VMT reductions calculated in the health benefits analysis, changes in hydrocarbon, particulate matter, nitrous oxides, carbon monoxide, and carbon dioxide were analyzed. In total, the replacement of motor vehicle trips with active transportation trips may result in an estimated range of 1,846,000 to 6,506,000 fewer pounds of CO₂ emissions per year, 2,400 to 8,700 fewer pounds of nitrous oxides, and between 32,600 and 117,300 fewer pounds of criteria pollutant vehicle emissions. Based on a review of air emissions studies, each pound of emissions was assigned an equivalent dollar amount based on how much it would cost to clean up the pollutant or the cost equivalent of how much damage the pollutant causes to the environment. The total reduction in vehicle emissions is equal to a savings between \$37,000 and \$131,000 in related environmental damage or clean-up per year. Other potential ecological services associated with the bicycle projects such as water regulation, carbon sequestration, carbon storage, and waste treatment exist, but the quantifiable value of these services are negligible on the overall impact of the recommended project list. Table 1-6 summarizes the annual environmental benefits for Bell.

Table 1-6: Estimated Annual Environmental Benefits

	Future Estimates						
	Baseline	Mid		High		Very High	
	Total	Total	Difference	Total	Difference	Total	Difference
CO₂ Emissions Reduced (lbs)	1,261,000	3,107,000	1,846,000	5,437,000	4,176,000	7,767,000	6,506,000
Nitrous Oxides (lbs)	1,700	4,100	2,400	7,300	5,600	10,400	8,700
Criteria Pollutants (lbs)	23,300	55,900	32,600	99,000	75,400	141,000	117,300
Total Vehicle Emission Costs Reduced	\$25,000	\$62,000	\$37,000	\$109,000	\$84,000	\$156,000	\$131,000

Bicycle infrastructure will benefit people of all ages and backgrounds



Transportation Benefits

The most identifiable benefits of the recommended project list are its ability to increase transportation options and access to activity centers for Bell residents and visitors. While money rarely changes hands, real savings can be estimated from the reduced costs associated with congestion, vehicle crashes, road maintenance, and household vehicle operations.

Using the same annual VMT reduction estimates highlighted in the health and environmental components, transportation-related cost savings were calculated. By multiplying the amount of VMT reduced by established multipliers for traffic congestion, vehicle collisions, road maintenance, and vehicle operating costs, monetary values were assigned to the transportation-related benefits. In total, an annual cost savings between \$630,000 and \$2,221,000 is estimated for the city at the aspirational bicycle commute mode share levels. Table 1-7 summarizes the annual transportation benefits for Bell.

Table 1-7: Estimated Annual Transportation Benefits

	Future Estimates						
	Baseline	Mid		High		Very High	
	Total	Total	Difference	Total	Difference	Total	Difference
VMT Reduced	756,000	1,861,000	1,105,000	3,256,000	2,500,000	4,652,000	3,896,000
Reduced Traffic Congestion Costs	\$53,000	\$130,000	\$77,000	\$228,000	\$175,000	\$326,000	\$273,000
Reduced Vehicle Crash Costs	\$378,000	\$930,000	\$552,000	\$1,628,000	\$1,250,000	\$2,326,000	\$1,948,000
Reduced Road Maintenance Costs	\$113,000	\$279,000	\$166,000	\$488,000	\$375,000	\$698,000	\$585,000
Household Vehicle Operation Cost Savings	\$431,000	\$1,061,000	\$630,000	\$1,856,000	\$1,425,000	\$2,652,000	\$2,221,000

Total Benefits

If the City of Bell achieves a bicycle commute mode share of four percent, it would experience approximately \$1,513,000 in additional health, environmental, and transportation benefits per year. Achieving a bicycle commute mode share of ten percent would bring approximately \$5,339,000 in additional annual benefits year. Table 1-8 summarizes all calculated benefits.

Table 1-8: Estimated Total Annual Benefits

	Future Estimates						
	Baseline	Mid		High		Very High	
	Total (\$)	Total (\$)	Difference	Total	Difference	Total	Difference
Health Benefits	\$35,000	\$86,000	\$51,000	\$151,000	\$116,000	\$216,000	\$181,000
Environmental Benefits	\$25,000	\$62,000	\$37,000	\$109,000	\$84,000	\$156,000	\$131,000
Transportation Benefits	\$975,000	\$2,400,000	\$1,425,000	\$4,200,000	\$3,225,000	\$6,002,000	\$5,027,000
Total Benefits	\$1,035,000	\$2,548,000	\$1,513,000	\$4,460,000	\$3,425,000	\$6,374,000	\$5,339,000



Added bicycle infrastructure will provide safer, more comfortable environments to ride in, encouraging cyclists to use the street instead of the sidewalk

BICYCLE-INVOLVED COLLISION ANALYSIS

This section reviews bicycle-involved collisions from January 1, 2009 to December 31, 2013 as reported by the Statewide Integrated Traffic Records System (SWITRS). The California Highway Patrol (CHP) updates SWITRS each quarter.

While collision data are sometimes incomplete and do not capture ‘near misses,’ they do help to create a general understanding of the safety issues facing bicyclists in Bell. The purpose of the bicycle-involved collisions analysis is to assess trends in bicycle collisions over time, identify hotspots and conflict areas between motorists and bicyclists, and understand the circumstances of bicycle collisions.

Table 1-9 presents the number of bicycle-involved collisions in the City of Bell from 2009-2013 and Figure 1-6 shows their location. The number of collisions ranged from 11 to 24 per year, with an average of 18 collisions per year. While a total of 91 bicycle-involved collisions were reported during the studied time period, zero bicycle-involved collisions in the city resulted in fatalities. Table 1-9 and Table 1-10 show an upward trend in bicycle-involved collisions since 2009 and a slight reduction in 2013. This trend not only represents a higher number of collisions, but also a higher percentage of total collisions.

Table 1-9: Bicycle-Involved Collisions by Year

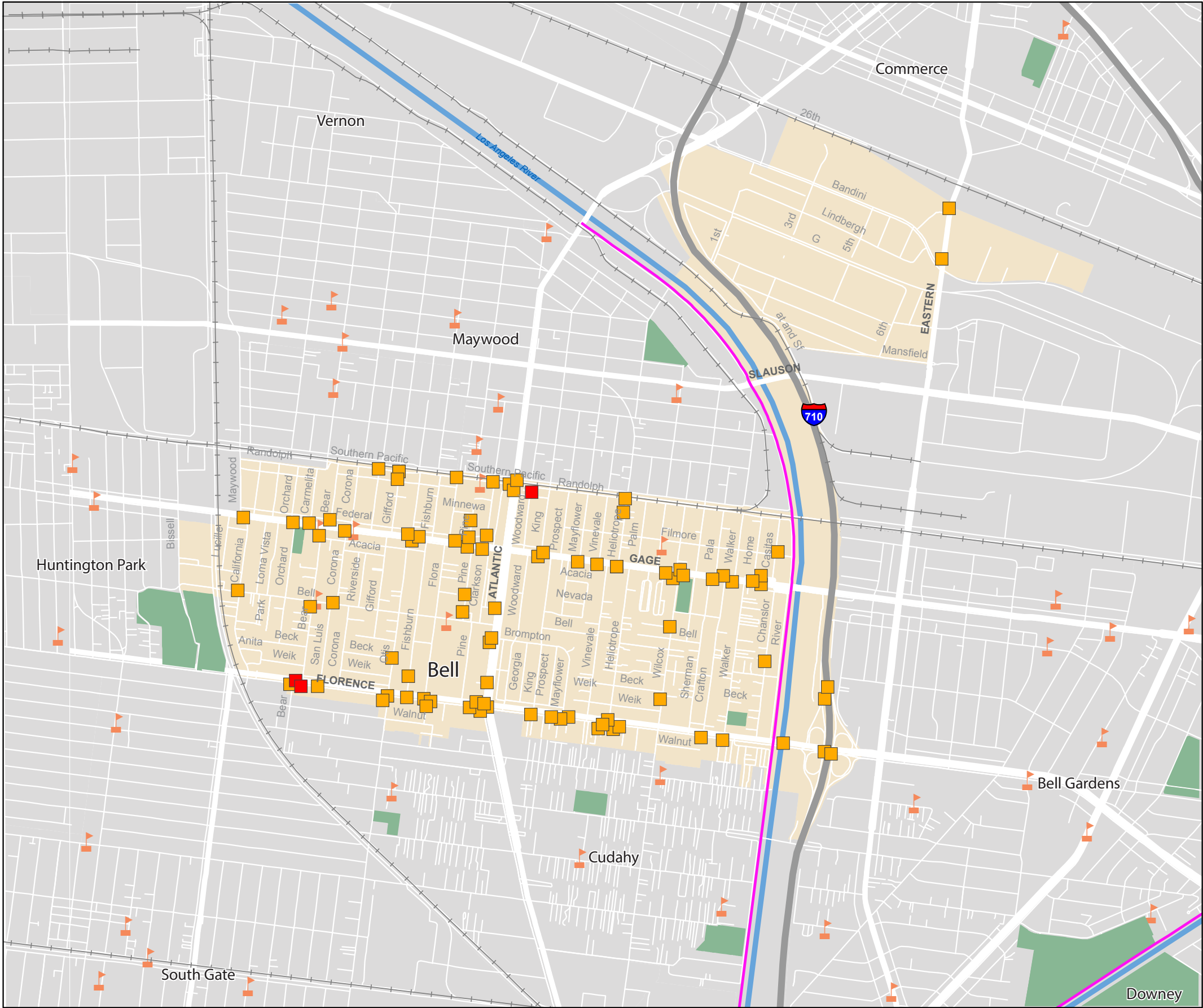
Year	Number of Collisions
2009	11
2010	15
2011	21
2012	24
2013	20
Total	91

Between January 2009 and December 2013, there were 792 total collisions reported in the City of Bell. The 91 bicycle-involved collisions represent an 11 percent of total collisions, a considerable higher percentage when compared to the nine percent in Los Angeles County. Ninety-three bicycle riders were involved in these 91 bicycle-involved collisions, and every reported bicycle-involved collision resulted in at least one bicycle rider(s) injured. Three of the collisions resulted in severe injuries⁷ to the bicycle rider. These three severe injuries represent a higher percentage of bicyclists severely injured in Bell than countywide, where six percent of bicycle-involved collisions resulted in severe injuries. Table 1-10. summarizes the number of bicycle-involved collisions in the city by year, both in absolute numbers and as a percentage of all collisions and injuries. According to the CHP, bicycle riders were at fault 57 percent in these 91 bicycle-involved collisions.

Table 1-10: Bicycle-Involved Collision Summary

Year	Bicycle-Involved Collisions	Bicycle Share of Total Collisions	Bicycle-Involved Collisions Resulting in Severe Injury
2009	11	8.4%	0
2010	15	8.8%	0
2011	21	13.2%	0
2012	24	15.5%	2
2013	20	11.4%	1
Total	91	11.5%	3

⁷The California Highway Patrol defines a severe injury as one “which prevents the injured party from walking, driving, or performing activities he/she was normally capable of before the collision.” Source: California Highway Patrol Glossary.



Bicycle Collisions, 2009 - 2013

City of Bell Bicycle Master Plan

- Park or Open Space
 - Bell City Limits
 - Railroad Line
 - School
- Collision Severity**
- Severe Injury
 - Minor Injury
- Bikeways**
- Class I Shared-Use Path



Figure 1-6: Bicycle-Involved Collisions (2009-2013)

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Table 1-11 displays the top four roadways with the most bicycle-involved collisions based on data from 2009-2013. Florence Avenue, an arterial street with a 35 mph speed limit, experienced the most bicycle collisions among roadways in the City of Bell during the study period with 25 reported collisions. Gage Avenue, another arterial road with a 30 mph speed limit, closely followed with 15 bicycle-involved collisions during the study period. Together, the four roadways identified in Table 1-11 accounted for 56 percent of all bicycle-involved collisions.

Table 1-11: Highest Bicycle-Involved Collision Roadways

Roadway	Number of Bicycle-Involved Collisions
Florence Avenue	25
Gage Avenue	15
Pine Avenue	6
Atlantic Avenue	5

As shown in Table 1-12, more than two thirds (67 percent) of the bicycle-involved collisions occurred outside daylight hours. The relatively high number of collisions that occurred in the nighttime hours likely reflects both high traffic levels and poor visibility after dark. It is also important to mention that all the severe injuries that happened during the period studied happened between 6PM and 9PM. The number of collisions and severity indicates a need for various countermeasures such as bicycle safety education concerning visibility and lights, motorist education regarding watching for people on bicycles, or other means to improve the visibility of people on bicycles to motorists (i.e., bicycle lanes, "Share the Road" signs, etc.).

Table 1-12: Bicycle-Involved Collisions by Time of Day

Time of Day Comparison	Collisions	Percent of Collisions
Daylight (9AM-5PM)	29	31.9%
Dawn and Dusk (6AM-9AM & 5PM-8PM)	30	33%
Nighttime (8PM-6AM)	32	35.1%
Total	91	100%

Table 1-13 shows that sideswipes made up the vast majority (62.6 percent) of known bicycle-involved collisions in Bell during 2009-2013. Sideswipes generally occur when a motorist or person bicycling fails to yield while changing lanes or turning. The second highest bicycle-involved collision type is 'Other,' which includes a collision while a vehicle was backing among other possibilities. In Los Angeles County, 'Broadside' collisions accounted for almost half of bicycle-involved collisions. 'Other' and 'Sideswipe' complete the top three with 23 and 11 percent, respectively.

Table 1-13: Bicycle-Involved Collisions by Type

Type of Collision	Number of Collisions	Percentage of Total
Sideswipe	57	62.6%
Other ⁸	13	14.3%
Head On	8	8.8%
Broadside	4	4.4%
Rear End	4	4.4%
Pedestrian	4	4.4%
Not Stated	1	1.1%
Total	91	100%

⁸According to the SWITRS Collision Investigation Manual, 'Other' is defined as "a collision not covered in the preceding elements. This entry shall be explained in the narrative, such as a vehicle involved with: (1) A bicycle, train, or animal; (2) An automobile fire; (3) Passengers falling or jumping from a vehicle; (4) A vehicle backing or; (5) A bicycle involved with a pedestrian or another bicycle."

Table 1-14 shows that violation of automobile right of way was the most common type of violation recorded (29.7 percent) of known bicycle-involved collisions in Bell during 2009-2013. Violation of automobile right of way happens when, in the estimation of an officer, a cyclist fails to yield to motorist when required. The second and third highest type of violation were 'Wrong Side of Road' (16) and 'Improper Turning,' (15) which includes improper u-turns or an improper left or right turn at a traffic signal. In Los Angeles County, 'Wrong Side of the Road' was the first violation reported during the study period with 27 percent, closely followed by 'Automobile Right of Way' with 22%. 'Improper Turning' violations percentage is almost two times higher in Bell than in Los Angeles County.

Table 1-14: Bicycle-Involved Collisions by Violation Category

Violation Category	Number of Collisions	Percentage of Total
Automobile Right of Way	27	29.7%
Wrong Side of Road	16	17.6%
Improper Turning	15	16.5%
Other	15	16.5%
Other Hazardous	7	7.7%
Traffic Signals and Signs	6	6.6%
Unsafe Speed	2	2.2%
Unsafe Starting or Backing	2	2.2%
Unsafe Lane Change	1	1.1%
Total	91	100%

Bicycle-Involved Collisions Summary

Bicycle-involved collisions occurred at higher frequencies at intersections on arterial streets such as Florence Avenue and Gage Avenue, particularly during hours of darkness and limited visibility. A large majority of these bicycle-involved collisions were classified as sideswipe collisions, which typically are referred to as "blind spot" or "right hook" collisions.

Many of the bicycle-involved collisions were the result of bicyclists riding on the wrong side of the street or caused by improper turning. This may suggest that the bicycle network is incomplete and does not serve desired paths of travel.



Added bicycle infrastructure will provide safer environments for people of all ages.

CHAPTER 2: COMMUNITY OUTREACH

COMMUNITY SURVEY

The Alta Team highly values community input in the planning process and is taking the steps to create inclusive recommendations that reflect a balance of research and community knowledge. To gather input on bicycling conditions, community members were given an opportunity to fill out a community survey that would help capture bicycling opportunities and challenges throughout the City of Bell. On February 16, 2016, the survey was made available online and was accessible through June 27, 2016. Community members were also able to fill out hard copies of the survey at the Bell 5k Run on February 21, 2016 and the Bell Walk and Roll Festival on May 21, 2016.

Over half of City of Bell Bicycle Master Plan Community Survey respondents are between the ages of 13-35 and identified as female. Although the majority shared that their school or work is less than five miles away, just under half of survey respondents noted that they commute to work or school by car alone. Most community members choosing to ride a bicycle

are motivated due to health and environmental reasons. Respondents voiced that most of their bicycle rides last two to five miles.

When asked what prevents people from bicycle commuting to work or school, the lack of designated on-street bike lanes and lack of designated off street bike paths were the most popular choices. Respondents also indicated that the lack of bike parking or storage as well as lack of connecting bike routes to other cities were deterrents to bicycle commuting to work or school.

Only about one out of three participants shared that they always wear a helmet when riding a bicycle, revealing the need for more bicycle safety programs. Community members were asked to rank bicycle programs' importance, and identified Safe Routes to School programs for children, special bicycling oriented events (CicLAvia, Bike Month, etc.), and riding skills and safety education for children. Given these responses, community members highly value bicycle safety and education for youth in Bell.

17. Please rate to what extent the following bicycle programs are important to you:

	Very Important	Somewhat Important	Neutral	Not Important
Riding skills and safety education for adults	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riding skills and safety education for children	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe Routes to School programs for children	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public awareness campaigns	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special events (e.g., CicLAvia, Bike Month, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bicycle maps and guides	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle information websites or smart phone apps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local business incentives (e.g., arrive by bike for 20% off)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information booths at public events	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle tune-up workshops	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Where would you like to see new bicycle facilities (e.g., bike lanes, signs, parking, etc.)?

Southwest LA region - particularly on main streets like Atlantic Ave and Long Beach Blvd / Pacific Blvd

Figure 2-1: Excerpt of Community Survey

When asked what keeps them from riding a bicycle in their community, over half of the respondents chose lack of dedicated on-street bike lanes as their most popular response. Lack of off-street bike paths and lack of connecting bike routes to other cities were popular follow-up reasons. Community members were asked to rank to what degree of importance certain conditions affected their bicycle ride. Two out of three respondents chose presence of bike routes, while presence of off-street bike paths and condition of bikeway/roadway (like pavement quality).

Community members were given the opportunity to suggest potential bicycle lane improvements in specific areas in the City of Bell. A grand majority of community member respondents individually identified Atlantic Avenue and Gage Avenue as key streets for proposed bicycle lanes. Community members also emphasized the importance of bringing bicycle lanes to parks and schools.

Figure 2-1 on page 31 the previous page shows questions 17 and 18 of the community survey. In this figure, a survey respondent noted a detailed suggestion for the planning process based on their bicycling experience. Detailed survey responses are included in the Appendices.

BICYCLE AUDIT

On March 10th, 2016, the Alta Team led a community bicycle ride down Randolph Street and other highly transited streets in the City of Bell. This bicycle audit ride was used to provide insight into bicycling-related obstacles and opportunities in the City of Bell. Participants who joined the bicycle audit ride included the Mayor (Ali Saleh), City staff, community stakeholders and the Alta Team. After completing the ride, participants discussed possible bikeway design treatments in Bell. The pink route in Figure 2-2 below shows the bike audit ride from March 10th, 2016.

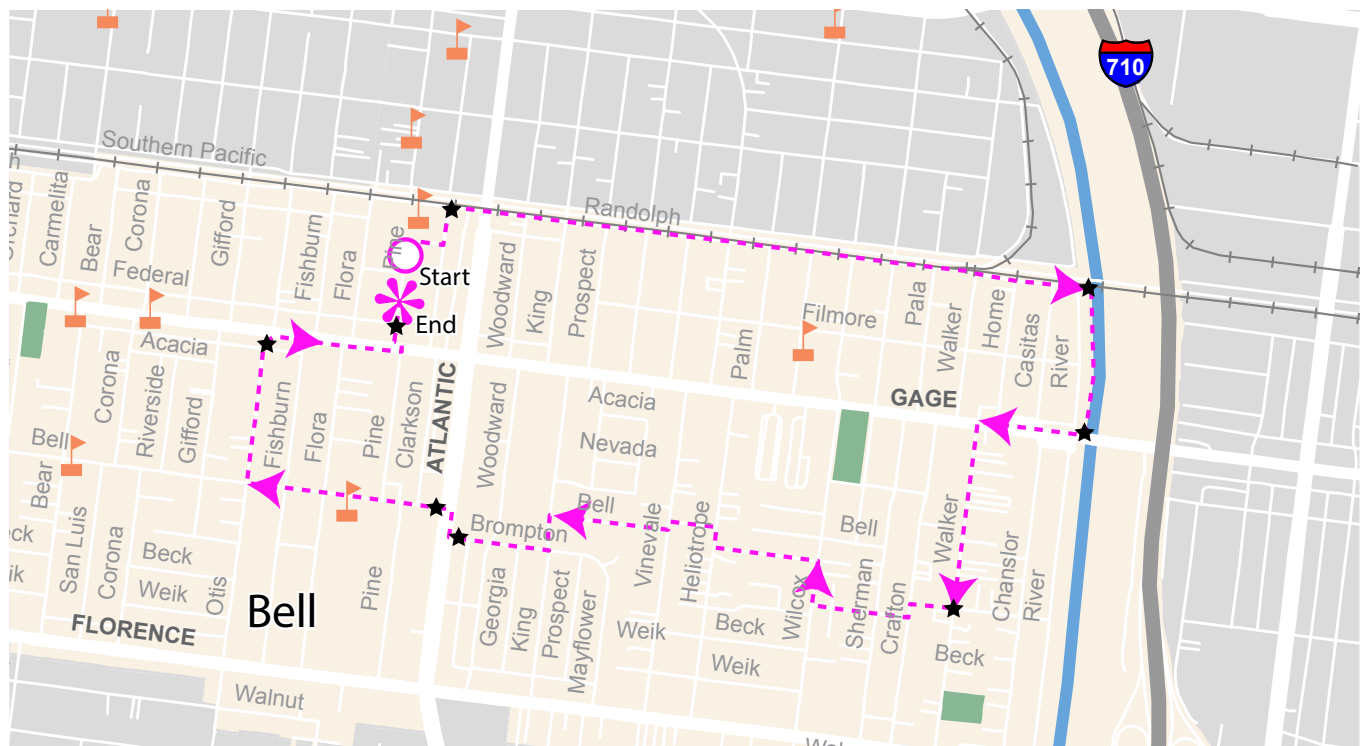


Figure 2-2: Bicycle Audit Route

COMMUNITY EVENTS

Bell 5k Run

On February 21, 2016, a pop up outreach event held on the Bell 5k Run gave community members a chance to provide input in the planning process. The Alta Team provided an overview of the current bicycle conditions within the City. Community members were invited to view maps from the Existing Bicycling Conditions analysis and were encouraged to provide comments or suggestions for improving the bicycling experience in Bell. The picture below shows the pop up outreach event facilitated by the Alta Team at the Bell 5k Run.

Community members were encouraged to mark up the map displays to show where bicycle lanes may benefit their family and community best. The top five most-requested streets for improvements include:

- Florence Ave.
- Gage Ave.
- Randolph Ave.
- Atlantic Ave.
- Salt Lake Ave./ Railroad Line



Bell 5k Run community outreach.

City of Bell Walk and Roll Festival

More than 300 community members participated in the Bell Walk and Roll Festival at Corona Avenue Elementary on May 21, 2016. This event provided an opportunity for families in Bell to learn about safe bicycling habits and practice bicycle skills. The festival showcased bicycle skills stations, obstacle courses, tune-ups, helmet-fitting, crafts and helmet giveaways.

The project team used the event as an opportunity to gain feedback from the community regarding bikeway improvement projects proposed in the Draft Bicycle Master Plan. Feedback was recorded using surveys (25 responses) and marked-up map displays.

On the Recommended Bikeway Network map display, community members were asked to respond to recommended projects and make suggestions for other bikeways needed. The streets seeing the greatest support for bikeway improvements are listed below. Each of the following streets is identified for bikeway improvements in the Draft Bicycle Master Plan:

- Florence Ave.
- Gage Ave.
- Randolph Ave.
- Salt Lake Ave. / Railroad Line
- California Ave.

Other community-suggested improvements included adding loop sensors for bicycles, restriping existing roads to create more bicycle lanes, and bicycle education programs. One community member emphasized a loop-based network concept, connecting Florence Avenue, Salt Lake Avenue, and Gage Avenue to create a cohesive network with two entry points to the Los Angeles River and connectivity to neighboring communities. This loop-based concept is consistent with the projects identified in the Recommended Bikeway Network.



Bell Walk and Roll Festival Community Outreach

Public Meetings And Focus Groups

Upon completion of the Draft Bicycle Master Plan, The City of Bell will host varied public meetings and focus groups to review the General Plan and the Draft Bicycle Master Plan. These meetings and groups serve as opportunities for community members to review the plans and provide feedback.

Table 2-1: Public Meetings Information

Date	Time	Location	Number of People Attended
6/2/2016	6:00PM	Bell Community Center	--
6/9/2016	6:00PM	Bell Community Center	--
6/16/16	6:00PM	Bell Community Center	--

Table 2-2: Focus Groups Information

Date	Time	Location	Number of People Attended
5/18/2016	8:30AM	Bell Mobile Home Park	--
5/27/2016	9:00AM	Florence Village Mobile Home Park	--
6/1/2016	9:30AM	Community Center (Bingo Club)	--
6/1/2016	6:00PM	Little Bear Park	--
6/15/2016	6:00PM	El ARCA	--
6/23/2016	7:00PM	Community Center	--



Bell Walk and Roll Festival Community Outreach

CHAPTER 3: INFRASTRUCTURE RECOMMENDATIONS

This chapter presents recommended bicycle infrastructure projects, along with citywide projects to support bicycling in Bell. These recommendations set the foundation for improving safety for those who currently bicycle and to encourage more trips by bicycling within Bell and connecting to regional destinations.

RECOMMENDED BIKEWAY PROJECTS

The bikeway recommendations that follow include a number of treatments for both short- and long-term improvements. Several of the recommended bikeway facilities, such as Class III Local Street Bikeways or Class II Bike Lanes, could be implemented initially then enhanced to a neighborhood greenway or Class IV Separated Bikeway, respectively, in the long term. This Plan recommends further studies be conducted for potential bikeways that are controlled by a non-City agency and/or are not feasible within the current right-of-way configuration.

Bikeway Facility Types

Class I Bike Path

Class I Bike Path provides for bicycle travel on a paved right-of-way completely separated from streets or highways (Figure 3-1). These facilities can be popular for recreational bicycling as well as for commuting, and are typically (but not necessarily) shared with pedestrians. In situations where high user volumes are anticipated, separate treads should be provided to separate faster users (bicyclists) from slower users (pedestrians).

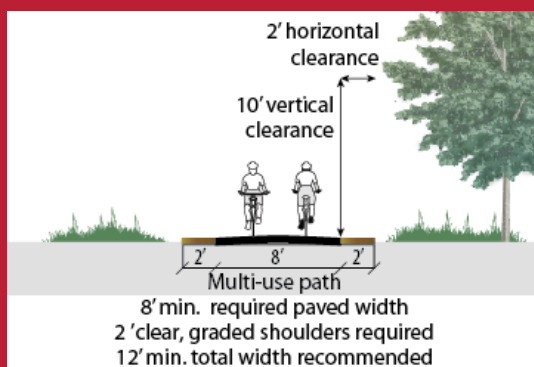


Figure 3-1: Standard Class I Bike Path (Caltrans)

Class II Bike Lane

A Class II Bike Lane provides a signed, striped and stenciled lane on a roadway for the exclusive use of bicyclists (Figure 3-2). Bike lanes are appropriate for roadways where traffic volumes and speeds are too high to comfortably share a travel lane. Class II Bike Lanes may be converted to Class IV Separated Bike Lanes over time through the addition of striped buffer zones and/or physical barriers, which can improve bike lane safety and enhance the interface with adjacent motor vehicle parking.

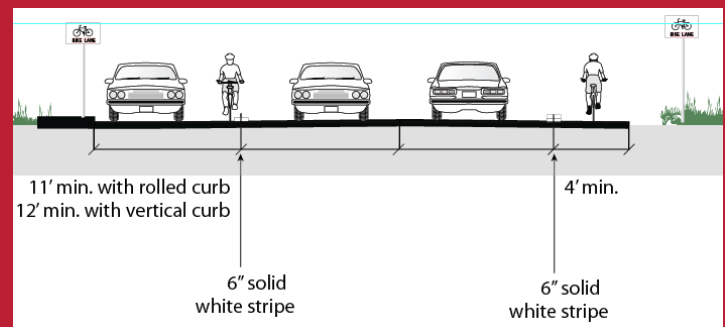


Figure 3-2: Standard Class II Bike Path (Caltrans)

Class III Bike Routes

Class III Bike Routes provide for shared travel lane use where routes are not served by Class I or II Bikeways. These type of facilities are identified with signs and/or stencils (Figure 3-3). Bike Routes commonly serve as an alternative to high-stress roads that are less suitable for bicycle riding and may be configured to offer directional and wayfinding guidance. Class III bikeways can complement and enhance school walking routes, particularly if traffic calming is incorporated into the Class III bikeway design.

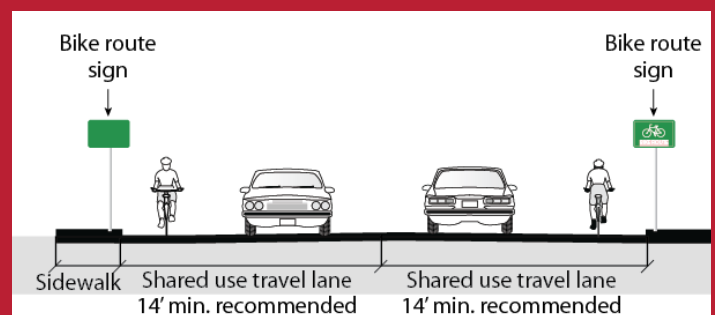


Figure 3-3: Standard Class III Bike Path (Caltrans)



Additional bicycle infrastructure will help cyclists feel comfortable riding in the street.

A note on shared-lane markings (sharrows)

In the past, Class III signage and shared-lane markings have been widely used in California to designate bicycle-friendly streets – even on collectors and arterials. Studies are now finding that shared-lane markings are ineffective as safety measures, demonstrating negligible or even negative safety effects.¹ Moreover, bikeway signage and stencils alone have emerged as the least-preferred bikeway facility type among cyclists – second only to streets with no bikeway facilities at all.² For these reasons, this Plan recommends the use of shared-lane markings only on local streets, and primarily for the purposes of route identification and wayfinding (i.e. to identify an upcoming turn), rather than to guide lane positioning. The term “Class III Local Street Bikeway” is used throughout this plan to reflect this interpretation of the Class III designation.

Class IV Separated Bikeways

Class IV Separated Bikeways are a new class of bicycle facility, and Caltrans is currently developing design guidance for California communities. Class IV bikeways are on-street bicycle facilities that are separated from vehicle traffic by some kind of physical protection—including a curb, flexible bollards or concrete planters (Figure 3-4). In many cases, separated bikeways can be made compatible with adjacent on-street parking.

Recommended bikeway projects are summarized by bikeway class in Table 3-1 below. The complete list of recommended bikeway projects is provided in Table 3-2 on page 39, and a map of the recommended improvements is shown in Figure 3-6 on page 41.

Table 3-1: Summary of Recommended Bikeways by Class

Bikeway Class	Proposed Miles
Class I	1.2
Class II	0.6
Class III	8.8
Class IV	0.8
Feasibility Study	6.0
TOTAL	17.4

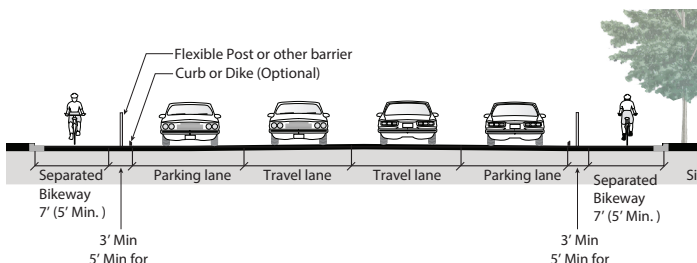


Figure 3-4: Standard Class IV Bike Path (Caltrans)

¹ Ferencsak and Marshall, 2016. Relative (In)Effectiveness of Bicycle Sharrows on Ridership and Safety Outcomes. Transportation Research Board 2016 Annual Meeting.

² University of British Columbia, 2016. Preferred Route Types. Cycling in Cities Research Program.

RECOMMENDED CITYWIDE PROJECTS

Bicycle Detection at Traffic Signals

Detection of bicyclists at actuated traffic signals is important for safety of bicyclists and motorists. The California Manual on Uniform Traffic Control Devices (CA MUTCD) requires all new and modified traffic signals be able to detect bicyclists with passive detection (rather than having to push a button).

Recommendation

This Plan recommends that the City of Bell adhere to this requirement by providing passive detection of bicyclists at signalized intersections.

Bicycle Wayfinding Program

Bicycle wayfinding assists residents, tourists and visitors in finding key community destinations. An easily navigable network includes signs and pavement markings placed at decision points along designated bikeways. A successful wayfinding program can enhance efforts to promote bicycling in the City. Signs may also include information about distances and destinations, as seen in Figure 3-5.

Recommendation

This Plan recommends the development of a bicycle wayfinding program that offers guidance to destinations including schools, parking, parks, and civic buildings.



Figure 3-5: Bicycle Wayfinding Examples

Bicycle Racks on Buses

Bicycle racks on buses can make commuting easier by providing first- and last-mile connectivity. Currently, all Metro buses serving the City of Bell are equipped with two bicycle racks. However, La Campana, the city's shuttle service, does not have bicycle racks available.

Recommendation

This Plan recommends that La Campana shuttle service add bicycle racks to their shuttles to expand commuting options for community members.

End-of-Trip Facilities

Bicycle parking is critical in promoting bicycling. Convenient, easily-used, and safe bicycle parking enables people to complete more trips by bicycle. Bicycle parking ranges from simple bicycle racks or bicycle corrals to bicycle lockers or cages that protects against weather, vandalism, and theft. As previously mentioned, the City does not have a bicycle parking inventory and there has been no known public investment in bicycle parking.

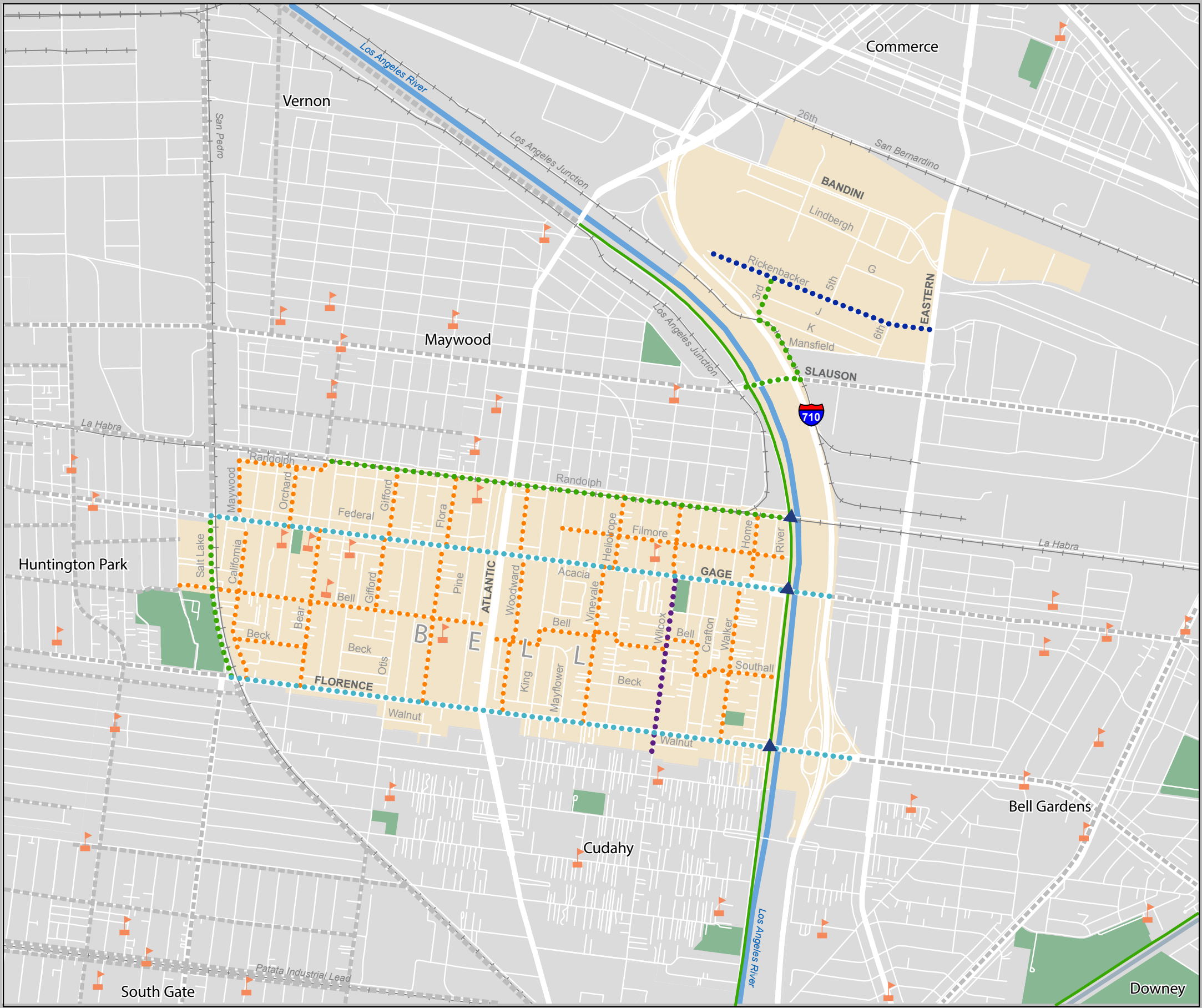
Across the City, people who visit the Central City area, parks, schools, retail stores and employment centers on bicycles experience a shortage of bicycle parking. As a result, they may lock their bicycles to street fixtures such as trees, telephone poles, and sign poles.

There are other ends of trip facilities important to have a comprehensive bicycle network such as repair stations and hydration stations. Repair stations help to provide the tools where the people need them for public bike maintenance and repair. Hydration stations are essential for preventing dehydration of the bicycle network users and can be a good feature to enhance bicycle riding throughout the City.

Table 3-2: Recommended Bikeway Projects

Segment	Start	End	Class	Length (mi)	Cost	Notes
Gage Ave	Salt Lake Ave	River Dr	Complete Street Feasibility Study	2.2	TBD	Study feasibility of a Complete Street treatment to provide Class IV bikeways and pedestrian enhancements through a road diet (parking removal and/or travel lane reduction).
Florence Ave	Salt Lake Ave	River Dr	Complete Street Feasibility Study	2.2	TBD	Study feasibility of Class IV Separated Bikeway through parking removal and/or travel lane reduction. Coordinate with ongoing pedestrian improvements.
Randolph St	Carmelita Ave	LA River Path	Complete Street Feasibility Study	1.6	TBD	Study feasibility of grade-separated bikeway and pedestrian facilities on the north side of Randolph Street (within curb or adjacent to railroad). <ul style="list-style-type: none">Alternative A: Class IV Separated Bike Lanes with parallel jogging pathAlternative B: Class I Bike Path (Shared-Use) Randolph Street between Slauson Station and the LA River is one of four alternatives in Metro’s Rail to River Feasibility Study.
Rickenbacker Rd	1st St	Eastern Ave	IV	0.8	\$120,000	Class IV Separated Bike Lanes
Salt Lake Ave	Gage Ave	Florence Ave	I	0.6	\$540,000	Bike Path <ul style="list-style-type: none">East side of street (within curb or adjacent to railroad)Shared-use path or separated pedestrian/bicycle treads
3rd St	Rickenbacker Rd	Ave K	I	0.1	\$90,000	Coordinate with property owners to provide a shared-use sidepath.
BNSF Railroad	Ave K	Slauson Ave	I	0.2	\$180,000	Rail with Trail
Slauson Ave	LA River Path	Railroad	I	0.3	\$270,000	<ul style="list-style-type: none">Short-term: shared-use sidepath on north side of bridgeLong-term (bridge reconstruction): Class IV bike lanes and sidewalks
Wilcox Ave	Gage Ave	City Limit (South of Florence)	II	0.6	\$96,000	Bike Lanes <ul style="list-style-type: none">Include a painted buffer (3’) between bike lane and traffic lanes, as feasibleConsider adding physical protection to buffer area over time to create Class IV
Bell Ave	Bissel St	Atlantic Ave	III	1.1	\$66,000	Local Street Bikeway: pavement markings and signage <ul style="list-style-type: none">Consider long-term traffic calming on this key east-west route
Brompton Ave/Bell Ave /Southall Ln	Atlantic Ave	River Dr	III	1.2	\$72,000	Local Street Bikeway: pavement markings and signage <ul style="list-style-type: none">“Wiggle” route tying together several local streets to provide a continuous east-west corridor<ul style="list-style-type: none">Navigation wayfinding provided via signage and shared-lane markingsIncludes Southall Ln catwalk between Crafton Ave and Walker Ave (wayfinding and accessibility improvements)
Filmore St	Prospect Ave	River Dr	III	0.8	\$48,000	Local Street Bikeway: pavement markings and signage
Randolph Pl	Maywood Ave	Carmelita Ave	III	0.3	\$18,000	Local Street Bikeway: pavement markings and signage
Beck Ave	California Ave	Bear Ave	III	0.2	\$12,000	Local Street Bikeway: pavement markings and signage
California Ave	Gage Ave	Florence Ave	III	0.6	\$36,000	Local Street Bikeway: pavement markings and signage
Orchard Ave	Randolph Pl	Gage Ave	III	0.2	\$12,000	Local Street Bikeway: pavement markings and signage
Maywood Ave	Randolph Pl	Gage Ave	III	0.2	\$12,000	Local Street Bikeway: pavement markings and signage
Bear Ave	Gage Ave	Florence Ave	III	0.5	\$30,000	Local Street Bikeway: pavement markings and signage
Gifford Ave	Randolph St	Bell Ave	III	0.5	\$30,000	Local Street Bikeway: pavement markings and signage
Flora Ave	Randolph St	Florence Ave	III	0.8	\$48,000	Local Street Bikeway: pavement markings and signage
Woodward Ave	Randolph St	Florence Ave	III	0.8	\$48,000	Local Street Bikeway: pavement markings and signage
Heliotrope/Vinevale Ave	Randolph St	Florence Ave	III	0.8	\$48,000	Local Street Bikeway: pavement markings and signage
Home Ave/Walker Ave	Randolph St	Florence Ave	III	0.8	\$48,000	Local Street Bikeway: pavement markings and signage
Total	--	--	--	17.4	\$1,824,000	--

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Recommended Bikeway Network
City of Bell Bicycle Master Plan

- Bell City Limits
- Park or Open Space
- Railroad Line
- School

Bikeways
Existing / Recommended

- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Local Street Bikeway
- Class IV Protected Bicycle Lane
- Complete Streets Feasibility Study
- Currently Planned Bike Network

Bicycle Facilities

- LA River Access Improvement
- Intersection Improvement



Figure 3-6: Recommended Bikeway Projects

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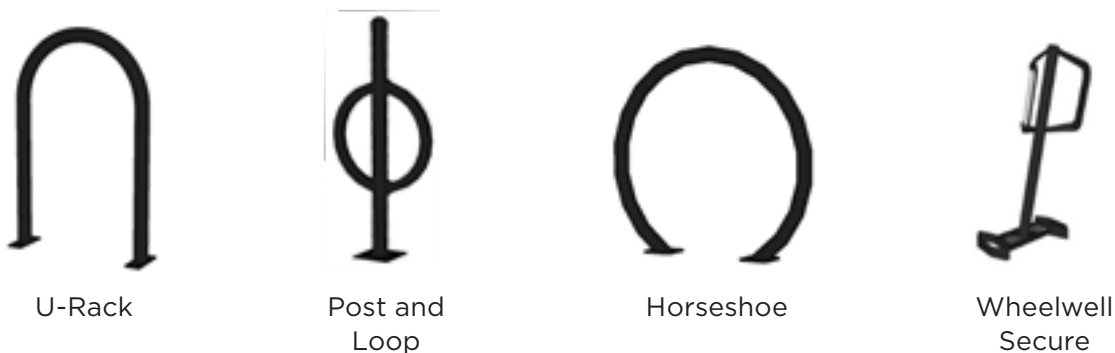
Table 3-3: Guidelines for Bicycle Parking Location and Quantities

Land Use or Location	Physical Location	Quantity
Parks	Adjacent to restrooms, picnic areas, fields, and other attractions	8 bicycle parking spaces per acre
Schools	Near office and main entrance with good visibility	8 bicycle parking spaces per 40 students
Public Facilities (libraries, community centers)	Near main entrance with good visibility	8 bicycle parking spaces per location
Commercial, retail and industrial developments over 10,000 square feet	Near main entrance with good visibility	1 bicycle parking space per 15 employees or 8 bicycles per 10,000 square feet
Shopping centers over 10,000 square feet	Near main entrance with good visibility	8 bicycle parking spaces per 10,000 square feet
Transit Stations	Near platform, security or ticket booth	1 bicycle parking space or locker per 30 automobile parking spaces
Multi-Family Residential	Near main entrance with good visibility	1 short-term bicycle parking space per 10 residential units AND 1 long-term bicycle parking space per 2 residential units

Types of Bicycle Parking

Bicycle parking can be categorized into short-term and long-term parking. Bicycle racks are the preferred device for short-term bike parking. These racks serve people who leave their bicycles for relatively short periods of time - typically for shopping, errands, eating or recreation. Bicycle racks provide a high level of convenience and moderate level of security. Other types of short-term parking devices are bicycle corrals- a cluster of bike racks installed within a single vehicle parking space. Types of bicycle racks can be seen below in Figure 3-7.

Long-term bike parking includes bike lockers and bike rooms that serve people who intend to leave their bicycles for longer periods of time. Long-term parking is typically found in public transit stations and commercial buildings. These facilities provide a high level of security but are less convenient than bicycle racks.

**Figure 3-7:** Types of Bike Racks

Recommendation

This Plan recommends that the City adopt an ordinance requiring all new major development to provide bicycle parking in accordance with the rates specified in Table 3-3 on the previous page. This Plan also recommends that the City and private developers only install bicycle parking that provide two points of contact to support the bicycle frame, and that allow the frame and at least one wheel to be secured with a standard U-lock. Recommended standard rack types are shown in Figure 3-7 on page 43.

Long-term bicycle parking should provide some weather protection and greater security than bicycle racks, and should be in the form of a secure room or locker.

Bicycle parking is recommended at key destinations in Bell, including Bell City Hall and Ernest Debs Park. Recommended locations to install bicycle parking within the City's right-of-way are identified in Table 3-4.

While the City cannot install bicycle parking on private right-of-way, it is recommended that the City encourage the property owners and the Los Angeles Unified School District to install bicycle parking as identified in Table 3-5. All proposed bicycle parking is shown in Figure 3-8.

Table 3-4: Recommended Bicycle Parking Locations

Location	Type	Rack Quantity
City Hall (Federal Ave / Pine Ave)	Long Term	1
Veterans' Memorial Park (Gage Ave / Wilcox Ave)	Short Term	2
Camp Little Bear Park and Lodge (Bell Ave / Bear Ave)	Short Term	1
Camp Little Bear Park and Lodge (Bell Ave / Bear Ave)	Long Term	1
Ernest Debs Park (Gage Ave / Orchard Ave)	Long Term	1

Table 3-5: Suggested School and Private Property Bicycle Parking

Location	Type	Quantity
Bell High School (Bell Ave / Flora Ave)	Short Term	1
Bell High School (Bell Ave / Flora Ave)	Long Term	1
Gage Ave / California Ave	Short Term	1
Gage Ave / Gifford Ave	Short Term	1
Gage Ave / Atlantic Ave	Short Term	1

Recommended Bicycle Parking
City of Bell Bicycle Master Plan

Bell City Limits

Park or Open Space

Railroad Line

School

Bikeways

Existing / Recommended

N/A

N/A

N/A

N/A

Class I Shared-Use Path

Class II Bicycle Lane

Class III Local Street Bikeway

Class IV Protected Bicycle Lane

Feasibility Study

Bicycle Facilities

LA River Access Improvement

Intersection Improvement

Short-term Bicycle Parking

Long-term Bicycle Parking



Figure 3-8: Recommended Bike Parking Locations

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CHAPTER 4: PROGRAM AND POLICY RECOMMENDATIONS

This chapter presents recommended bicycle-related programs for the City of Bell. These recommendations are organized into four “E’s”:

- **Education** programs are designed to improve safety and awareness. They can include programs and classes that teach children and adults how to safely ride on busy streets or teach drivers to expect people on bicycle. They may also include brochures, posters, or other information that targets people bicycling and/or driving.
- **Encouragement** programs and events provide incentives and support to help people leave their car at home and try bicycling instead. Encouragement activities can help to spark the interest in people in bicycling.
- **Enforcement** programs enforce legal and respectful bicycling and driving, and deter unsafe behavior of street users. They include a variety of tactics, ranging from police enforcement to neighborhood signage campaigns.
- **Evaluation** programs are an important component of any investment. They help measure success at meeting the goals of this Plan and to identify adjustments that may be necessary.

EDUCATION

Education programs are important for teaching safety rules and laws as well as increasing awareness regarding bicycling opportunities and existing facilities. Education programs may be designed to reach groups at varying levels of knowledge and there may be many different audiences: pre-school age children, elementary school students, teenage and college students, workers and commuters, families, the elderly, new immigrants, and non-English speakers.

Adult Bicycling Skills Classes

Most people bicycling do not receive training on safe bicycling practices, the rules of the road, and bicycle handling skills. Bicycling skills classes

can address this education gap. The League of American Bicyclists offers classes taught by certified instructors. Information can be found at: <http://www.bikeleague.org/>

Recommendation

This Plan recommends the City support adult bicycle rider skills classes. In addition, the City could also encourage largest employers to offer classes for employees.

Bicycle-Related Ticket Diversion Class

Diversion classes are offered to bicycle riders who have been cited for certain traffic violations, such as running a stoplight. This type of program was favored by members of the public.

California Assembly Bill 209, signed by Governor Brown on September 21, 2015, allows for such programs for violations not committed by a driver of a motor vehicle. This program is a good way to educate bicycle riders about rights and responsibilities.

Similar programs exist throughout California. More information:

<https://afd.calpoly.edu/police/classes/bicycle>

<http://www.cityoflivermore.net/citygov/police/ops/traffic/bikesafety/diversion.asp>



Outreach at a school in Bell.

Recommendation

This Plan recommends the City consider offering bicycle rider diversion classes through the Bell Police Department.

StreetSmarts Campaign

Outreach conducted during this planning effort identified a need to raise public awareness of bicycling as a viable form of transportation and to combat negative stereotypes about people who choose to bicycle.

On a citywide scale, Bell could start a StreetSmarts media campaign, similar to those in other California cities. Developed by the City of San José, StreetSmarts uses print media, radio spots and television spots to educate people about safe driving, bicycling, skateboarding, and walking behavior. More information about StreetSmarts can be found at www.getstreetsmarts.org.

Recommendation

This Plan recommends the City consider implementation of a public awareness program such as StreetSmarts.

Student Bicycle Traffic Safety Education

Student education programs are an essential component of bicycle education. Students are taught traffic safety skills that help them understand basic traffic laws and safety rules. The City of Bell currently does not have a formal Safe Routes to School program, although public comment favored this type of education programming.

Bicycle education curriculum typically includes two parts: knowledge and skills. Knowledge lessons are typically in-class, while skills are practiced on a bicycle. Lessons can include helmet and bicycle fit, hand signals, and riding safely with traffic.

Benefits

Student bicycle traffic safety education can benefit the Bell community by:

- Improving safety by teaching children about lifelong safety skills
- Create awareness with students and parents
- Encourage families to consider bicycling to school on a more frequent basis

Recommendation

This Plan recommends City of Bell to work alongside the School District to develop and implement a pilot education program to addressing bicycle traffic safety education and to expand it to include all Bell schools over time.

ENCOURAGEMENT

Everyone from young children to elderly residents can be encouraged to increase their rates of bicycling or to try bicycling instead of driving for short trips.

Bike Week

Bike Week (<https://www.metro.net/bikes/bike-week/>) is a regional event to promote bicycling to work and is typically held in May. Los Angeles County Metro hosts Bike Week and organizes several events.

Popular events include:

- Bike to Work Day (typically the 3rd Thursday of the month)
- Bike-in Movie
- City rides

Recommendation

This Plan recommends the City consider sponsoring a Bike Week event. The event can include a Bike to Work Day celebration in Old Town with group rides, raffles and prizes, and speeches from Council Members or the Mayor. The type of events held can be developed through community input.



Bike week in LA encourages people to commute by bicycle

Employer-Based Encouragement Programs

Though the City cannot host these programs, it can work with or provide information to employers about commuting by bicycle. Popular employer-based encouragement programs include hosting a bicycle user group to share information about how to bicycle to work and to connect experienced bicycle riders with novice bicycle riders. Employers can host bicycle classes and participate in Bike Week.

Recommendation

This Plan recommends the City collaborate with employers to implement bicycle-related programs.

Open Streets Events

Open Streets events, such as the regionally popular CicLAvia, celebrate walking and bicycling by closing key streets to vehicle traffic for a day or a few hours and opening them up for walking, bicycling, and other community activities. These events can create opportunities for people to try walking or bicycling away from the potential stresses of adjacent vehicle traffic.

Recommendation

This Plan recommends the City work with local community groups to host Open Streets events on a semi-annual basis.

Bicycle Friendly Business Districts

Bicycle Friendly Business Districts (BFBDs) provide end-of-trip bicycle infrastructure such as water bottle filling stations and bicycle parking in localized retail areas of a community. Providing infrastructure encourages the local community to buy local more often. “Shopping” was one of the most cited destinations in the community survey. Additionally, this would help address the lack of bicycle parking identified as a community need in the Existing Conditions chapter.

The City of Long Beach began a BFBD program by adding bicycle racks and corrals, bicycle lanes, and signage along major corridors. Participating bicycle friendly businesses receive a listing and map location on the Bike Long Beach website, as well as additional exposure through the website’s Bike Saturdays discount program which offers bicycle riders a discount or deal every Saturday at

more than 150 businesses within the six districts. More information can be found at <http://www.bikelongbeach.org/bike-friendly-businesses>.

Recommendation

It is recommended the City declare Old Town a BFBD, provide additional end-of-trip facilities within the District, and encourage shop owners to offer discounts to patrons who arrive by bicycle.

Suggested Walking and Bicycling Routes to School Maps

Suggested Walking and Bicycling Routes to School Maps can help parents overcome fears related to traffic and/or lack of knowledge of family friendly routes to school. These types of maps show stop signs, traffic signals, crosswalks, paths, overcrossings, crossing guard locations, and similar elements that can help parents make decisions about choosing the route that best fits their family’s walking and bicycling needs.

Recommendation

This Plan recommends that the City partner with the School District to create Walking and Bicycling Routes to School Maps.

Bicycle Trains

Bicycle Trains are an organized group of students who bicycle to school under the supervision of a parent/adult volunteer. Parent champions take turns bicycling along a set route to and from school, collecting children from designated “train stops” along the way.

Schools and parent champions can encourage parents to form Bicycle Trains at the back-to-school orientation or other fall events. The School District can provide safety vests to indicate the leader(s). Incentives for the parent volunteers can include coffee at the school or gift cards for coffee shops.

Benefits

Bicycle Trains benefit the Bell community by:

- Improving safety - Children are more visible bicycling in groups, accompanied by an adult
- Saving parents’ money by not using a car
- Saving parents’ time when they are not leading the train
- Reducing traffic congestion around the school

Recommendation

This Report recommends the City and School District work with schools and parent champions to develop a Bicycle Train program.

Example outreach materials:

- Sonoma Safe Routes to School's Bicycle Train Guide for Volunteers: <http://sonomasaferroutes.org/resources/bike-train-guide-for-volunteers.pdf/view>
- Marin County Safe Routes to Schools' SchoolPool Marin materials: <http://www.schoolpoolmarin.org/>

Back-to-School Encouragement Marketing

Families set transportation habits during the first few weeks of the school year and are often not aware of the multiple transportation options and routes available to them. A back-to-school encouragement marketing can promote bus, carpool, walking, and bicycling to school. The marketing campaign can include suggested route maps, safety education materials, volunteer opportunities, event calendars, and traffic safety enforcement notices. It can also include an illustrative guide with the Suggested Walking and Bicycling to School maps.

Benefits

Back to school encouragement marketing can benefit the Bell community by:

- Informing families about ways to walk and bicycle to school
- Informing families about school support for walking and bicycling to school

Recommendation

This Plan recommends the City implement a pilot education program and to expand it to include all Bell schools over time.

Student Incentive Programs

Contests and incentive programs reward students by tracking the number of times they walk, bicycle, carpool, or take transit to school. Contests can be individual, classroom, school-wide, or interschool competitions, and can be integrated with other programs like Walk 'n' Roll to School Days. Types of incentive programs are listed below:

- Pollution Punch Card is a year-round program designed to encourage students and families to consider their options for getting to school. Every time a student walks, bicycles, carpools, or takes transit a school representative records the activity. After a certain number of points are reached, the student received a prize or incentive.
- Walk or Bike across California/America is a year-round program designed to encourage walking and bicycling by tracking the miles they travel throughout the year. Students are taught how to track their mileage and will also learn about places along their way.

Benefits

Participation in incentive programs can benefit the Bell community by:

- Increasing awareness of walking and bicycling to school
- Increasing the number of students who walk or bicycle to school

Recommendation

This Report recommends the School District work with the schools and parent champions to sponsor a number of incentive programs.

Golden Sneaker Contest

In the Golden Sneaker Contest, classrooms compete to see which class has the highest rate of students walking, bicycling, or carpooling to and from school. The class tracks how many students commute by these modes and calculates the percent of total trips by each mode. The winner of the contest receives a "golden sneaker" trophy, along with other incentive prizes.

A Golden Sneaker Contest can be expanded from classroom competitions to intra-school competitions or district-wide competitions. Some schools hold celebrations for winning classrooms.

Benefits

Participation in the Golden Sneaker Contest can benefit the Bell community by:

- Increasing awareness of walking and bicycling to school
- Increasing the number of students who walk or bicycle to school

Recommendation

This Report recommends the City work with the schools and parent champions to hold the Golden Sneaker Contest.

Monthly Walk and Roll Days

Walk and Roll to School Days are events to encourage students to try walking or bicycling to school. The most popular events of this type are International Walk to School Day (held in early October) and Bike to School Day (held in early May). Many communities have expanded on this once a year event and hold monthly or weekly events such as Walk and Roll the First Friday (of every month) or Walk and Roll Wednesdays (held every Wednesday).

Holding weekly or monthly Walk and Roll to School Day promotes regular use of active transportation and helps establish good habits. Events can take on a wide range of activities, with some schools choosing to make them weekly rather than monthly, such as with a “Walk and Roll Wednesday.”

Volunteers can set up a welcome table for people walking and bicycling. The welcome table could provide refreshments, incentive prizes, and an interactive poster letting students document their mode to school. Walking School Buses, Bicycle Trains, and Golden Sneaker Contests can be organized and promoted on these days.

Benefits

Participation in Monthly Walk and Roll Days can benefit the Bell community by:

- Building community
- Saving parents’ money by not using a car
- Reducing traffic congestion around the school
- Reducing stress caused by driving

Recommendation

It is recommended the City, schools, PTAs, and parent champions work together to expand Walk and Bike to School days to be held on a weekly basis.



Walk and roll days encourage safe routes to school for children

ENFORCEMENT

Enforcement programs enforce legal and respectful use of the transportation network. This programs will help educate motorists, bicycle riders, and pedestrians about the rules and responsibilities of the road.

Bicycle Helmet and Light Giveaways

The California Office of Traffic Safety (OTS) grant program can fund bicycle helmets or lights for giveaways to children at schools or children observed bicycling without wearing helmets or residents riding without lights. Bicycle lights are required for nighttime riding in California (CVC21201) and can help increase the safety of a person riding a bicycle. Typically this type of program is conducted in partnership with the Police Department.

On February 2016, the Los Angeles County Bicycle Coalition distributed bicycle lights in the City of Bell through “Operation Firefly,” an education and bicycle light distribution program which organizes groups of volunteers to meet for “street distributions” at undisclosed locations. The volunteers invite people who are riding bicycles without lights to stop in order to give them front and rear lights along with an information “spoke card” that explains the laws related to riding at night as well as tips they should know for nighttime safety. The spoke cards are printed in English and Spanish, and “Team Firefly” volunteers always include at least a few people who speak Spanish. More information can be found here: <http://www.la-bike.org/operationfirefly>

Recommendation

This Plan recommends the City seek an OTS grant and conduct helmet and light giveaways.

Voluntarily Register Bicycles

Cities have found bicycle registration requirements to be impractical to enforce and ineffective at improving safety for people riding bicycles.

Recommendation

This Plan recommends that the City of Bell rescind its Municipal Code ordinances (10.48.010, 10.48.020, 10.48.030 and 10.48.040) requiring that bicycles in Bell be registered and that operators be licensed. Instead, Bell should encourage residents to voluntarily register their bicycles on the free [National Bike Registry](http://www.nationalbikeregistry.org).

EVALUATION

Evaluation programs help the City of Bell measure how well it is meeting the goals of this Plan and the General Plan, and evaluation is a key component of any engineering or programmatic investment. It is also a useful way to communicate success with elected officials as well as local residents.

Annual Collision Data Review

Reviewing bicycle rider-involved collisions and near-misses on an annual basis can help the City identify challenging intersections or corridors. This review should include an assessment of the existing infrastructure to determine whether improvements can be made to reduce the number of collisions in the community.

Recommendation

This Plan recommends the City and Police Department review bicycle-involved collision data on an annual basis to identify needed improvements.

Parent Surveys

The National Center for Safe Routes to School provides a standard parent survey, collecting information on modes of travel, interest in walking or bicycling to school, and challenges to walking and bicycling to school. The information gathered from the parent surveys can help the City of Bell provide programs that are attractive to parents. Parent surveys can also help measure parent attitudes and changes in attitude towards walking and bicycling to school.

Recommendation

It is recommended that the City of Bell conduct

parent surveys every two to three years.

Student Walking and Bicycling Counts

Student hand tallies are one way to count the number of students who walk, bicycle, take transit or carpool to school. The National Center for Safe Routes to School provides the standard tally form at <http://www.saferoutesinfo.org/program-tools/evaluation-student-class-travel-tally>.

Recommendation

It is recommended that schools in Bell conduct student tallies on a biannual basis.

CHAPTER 5: IMPLEMENTATION PLAN

This chapter presents a prioritized list of the individual infrastructure improvements, including the evaluation criteria, project cost estimates, and a list of prioritized projects.

PROJECT EVALUATION STRATEGY

Bicycle infrastructure projects were proposed according to the criteria described below.

Tier 1: Tier 1 bikeway projects were chosen based on staff, stakeholder, and community feedback. Tier 1 bike parking projects are the short-term recommended locations from Chapter 4.

Tier 2: All other projects from Chapter 4 fall under Tier 2.

The project list and individual projects included in this Plan are flexible concepts that serve as a guideline. The Tier 1 projects and perhaps the overall project list, may change over time as a result of changing bicycling patterns, land use patterns, implementation constraints and opportunities, and the development of other transportation improvements.

UNIT COST ASSUMPTIONS

Table 5-1 presents the planning level cost assumptions used to determine project cost estimates. Unit costs are typical or average costs informed by Alta Planning + Design's experience working with California communities. While they reflect typical costs, unit costs do not consider project-specific factors such as intensive grading, landscaping, or other location-specific factors that may increase actual costs. For some segments, project costs may be significantly greater.

Table 5-1: Unit Cost Assumptions

Item	Unit	Cost Assumption
Class I Shared-Use Path	MI	\$900,000
Class II Bike Lane (two sides)	MI	\$85,000
Class III Local Street Bikeway with shared-lane markings	MI	\$25,000
Class III Local Street Bikeway with traffic calming (assumes 3 new traffic calming devices per mile)	MI	\$55,000
Class IV Separated Bikeway (one side)	MI	\$200,000
Bicycle Rack	EA	\$500
Bicycle Locker	EA	\$2,700

PRIORITY PROJECTS SUMMARY

Table 5-2 presents a cost summary by priority tier and project type. These cost estimates do not include the potential costs of recommended bicycle facilities that will require further feasibility studies.

Table 5-2: Estimated Cost Summary by Tier and Project Type

Project Type	Estimated Cost
Tier 1 Projects	
Class I	\$540,000
Class II	\$96,000
Complete Street Feasibility Study	TBD
Bike Parking	\$3,500
Tier 1 Total	\$879,500
Tier 2 Projects	
Class I	\$540,000
Class III (including Local Street Bikeway enhancements)	\$523,000
Class IV	\$120,000
Bike Parking	\$10,800
Tier 2 Total	\$1,193,800
Total for all Tiers	\$1,833,300

Table 5-3 on page 57 and Table 5-4 on page 58 present lists of all Tier 1 and Tier 2 priority projects, respectively.



Traffic calming on Bell Avenue

PRIORITY PROJECT EXAMPLE: RANDOLPH STREET

This section provides a more detailed look at Alternative A of the recommended design study along Randolph Street. The alternative includes a Class IV Separated Bikeway and jogging path. This concept is fluid and can be completed in phases based on funding availability, as shown in the following images.



Existing



Class IV Only



With Path



Complete

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Table 5-3: Tier 1 Priority Project List

Class	Location	Start	End	Length (mi)	Notes	Cost Estimate
Bike Parking	Bell High School	Bell Ave/ Flora Ave	--	--	Short term bike parking.	\$500
Bike Parking	Camp Little Bear Park and Lodge	Bell Ave / Bear Ave	--	--	Short term bike parking.	\$500
Bike Parking	Gage Ave/ Atlantic Ave	--	--	--	Short term bike parking.	\$500
Bike Parking	Gage Ave/ California Ave	--	--	--	Short term bike parking.	\$500
Bike Parking	Gage Ave/Gifford Ave	--	--	--	Short term bike parking.	\$500
Complete Street Feasibility Study	Gage Ave	Salt Lake Ave	River Dr	2.2	Study feasibility of a Complete Street treatment to provide Class IV bikeways and pedestrian enhancements through a road diet (parking removal and/or travel lane reduction).	TBD
Complete Street Feasibility Study	Florence Ave	Salt Lake Ave	River Dr	2.2	Study feasibility of Class IV Separated Bikeway through parking removal and/or travel lane reduction. Coordinate with ongoing pedestrian improvements.	TBD
Complete Street Feasibility Study	Randolph Ave	Carmelita Ave	LA River Path	1.6	Study feasibility of grade-separated bikeway and pedestrian facilities on the north side of Randolph Street (within curb or adjacent to railroad). • Alternative A: Class IV Separated Bike Lanes with parallel jogging path • Alternative B: Class I Bike Path (Shared-Use) Randolph Street between Slauson Station and the LA River is one of four alternatives in Metro’s Rail to River Feasibility Study.	\$240,000
Class I	Salt Lake Ave	Gage Ave	Florence Ave	0.6	Bike Path • East side of street (within curb or adjacent to railroad) • Shared-use path or separated pedestrian/bicycle treads	\$540,000
Bike Parking	Veterans’ Memorial Park	Gage Ave/ Wilcox Ave	--	--	Short term bike parking	\$1,000
Class II	Wilcox Ave	Gage Ave	City Limit (south of Florence Ave)	0.6	Bike Lanes • Include a painted buffer (3’) between bike lane and traffic lanes, as feasible • Consider adding physical protection to buffer area over time to create Class IV	\$96,000
Total	--	--	--	7.2	--	\$876,000

Table 5-4: Tier 2 Priority Project List

Category	Location	Start	End	Length (mi)	Notes	Cost Estimate
Class I	3rd St	Rickenbacker Rd	Ave K	0.1	Coordinate with property owners to provide a shared-use sidepath.	\$90,000
Class III	Bear Ave	Gage Ave	Florence Ave	0.5	Local Street Bikeway: pavement markings and signage	\$30,000
Class III	Beck Ave	California Ave	Bear Ave	0.3	Local Street Bikeway: pavement markings and signage	\$18,000
Class III	Bell Ave	Bissel St	Atlantic Ave	1.1	Local Street Bikeway: pavement markings and signage	\$66,000
					• Consider long-term traffic calming on this key east-west route	
Bike Parking	Bell High School	Bell Ave	Flora Ave	--	Long term bike parking.	\$2,700
Class I	BNSF Railroad	Ave K	Slauson Ave	0.2	Rail with trail	\$180,000
Class III	Brompton Ave/ Bell Ave/ Southall Ln	Atlantic Ave	River Dr	1.2	Local Street Bikeway: pavement markings and signage	\$72,000
					• “Wiggle” route tying together several local streets to provide a continuous east-west corridor	
					• Navigation wayfinding provided via signage and shared-lane markings	
					• Includes Southall Ln catwalk between Crafton Ave and Walker Ave (wayfinding and accessibility improvements)	
Class III	California Ave	Gage Ave	Florence Ave	0.6	Local Street Bikeway: pavement markings and signage	\$36,000
Bike Parking	Camp Little Bear Park and Lodge	Bell Ave	Bear Ave	--	Long term bike parking.	\$2,700
Bike Parking	City Hall	Federal Ave	Pine Ave	--	Long term bike parking.	\$2,700
Bike Parking	Ernest Debs Park	Gage Ave	Orchard Ave	--	Long term bike parking.	\$2,700
Class III	Fillmore St	Prospect Ave	River Dr	0.8	Local Street Bikeway: pavement markings and signage	\$48,000
Class III	Flora Ave	Randolph St	Florence Ave	0.8	Local Street Bikeway: pavement markings and signage	\$48,000
Class III	Gifford Ave	Randolph St	Bell Ave	0.5	Local Street Bikeway: pavement markings and signage	\$30,000
Class III	Heliotrope/ Winevale Ave	Randolph St	Florence Ave	0.8	Local Street Bikeway: pavement markings and signage	\$48,000
Class III	Home Ave/ Walker Ave	Randolph St	Florence Ave	0.8	Local Street Bikeway: pavement markings and signage	\$48,000
Class III	Maywood Ave	Randolph Pl	Gage Ave	0.2	Local Street Bikeway: pavement markings and signage	\$12,000
Class III	Orchard Ave	Randolph Pl	Gage Ave	0.2	Local Street Bikeway: pavement markings and signage	\$12,000
Class III	Randolph Pl	Maywood Ave	Carmelita Ave	0.3	Local Street Bikeway: pavement markings and signage	\$18,000
Class IV	Rickenbacker Rd	1st St	Eastern Ave	0.8	Class IV Separated Bike Lanes	\$120,000
Class I	Slauson Ave	LA River Path	Railroad	0.3	• Short-term: shared-use sidepath on north side of bridge	\$270,000
					• Long-term (bridge reconstruction): Class IV bike lanes and sidewalks	
Class III	Woodward Ave	Randolph St	Florence Ave	0.8	Local Street Bikeway: pavement markings and signage	\$48,000
Total	--	--	--		--	\$1,194,000

BIKEWAY MAINTENANCE COSTS

Typical maintenance costs for bikeway facilities and the resulting estimates for the entire recommended bikeway network in this Plan are shown in Table 5-5 on page 59.

Appendix C describes several potential funding sources that could aid the City in implementing this Plan.

Table 5-5: Bikeway Maintenance Cost Estimates

Facility Type	Cost per Mile per Year	Proposed Length (mi)	Total Annual Cost	Notes
Class I Shared-Use Path	\$8,500	1.2	\$10,200	Lighting, debris cleanup, and removal of vegetation overgrowth
Class II Bicycle Lanes (two sides)	\$1,500	0.6	\$900	Repainting lane stripes and stencils; sign replacement as needed
Class III Bicycle Routes (two sides)	\$1,000	8.8	\$8,800	Sign and shared-lane stencil replacement as needed
Feasibility Study	\$4,000	2.4	\$9,600	Debris removal; repainting stripes and stencils; sign replacement; replacing damaged barriers
Total		13	\$29,500	

APPENDICES

APPENDIX A: ATP COMPLIANCE CHECKLIST

Table A-1 City of Bell Municipal Code

Required Plan Elements	Location within this Plan
The estimated number of existing bicycle and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan.	Chapter 1
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.	Chapter 1
A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Chapter 1 Figure 1-1, Figure 1-2
A map and description of existing and proposed bicycle transportation facilities.	Chapter 1; Figure 1-3
A map and description of existing and proposed end-of-trip bicycle parking facilities.	Chapter 4; Table 4-6
A description of existing and proposed policies related to bicycle parking in public locations, private parking garages and parking lots and in new commercial and residential developments.	Chapter 4; Table 4-4; Table 4-5
A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These must include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Chapter 1, Chapter 4
A map and description of existing and proposed pedestrian facilities at major transit hubs. These must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	N/A (Pedestrian only)
A description of proposed signage providing wayfinding along bicycle networks to designated destinations.	Chapter 4, Figure 4-6
A description of the policies and procedures for maintaining existing and proposed bicycle facilities, including, but not limited to, the maintenance of smooth pavement, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Chapter 4
A description of bicycle safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle safety, and the resulting effect on accidents involving bicyclists.	Chapter 5
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities.	Chapter 3

A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Chapter 4
A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Chapter 5; Chapter 6
A description of past expenditures for bicycle facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists in the plan area. Include anticipated revenue sources and potential grant funding for bicycle uses.	Chapter 1; Chapter 6
A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 6
A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located.	Appendix (forthcoming)

APPENDIX B: EXISTING POLICIES AND PLANS

This appendix provides a summary of adopted or in-progress planning studies and policies that apply to bicycling in the City of Bell as well as relevant regional and state plans. The purpose of this review is to understand how existing policies encourage or discourage bicycle transportation. The Bicycle Master Plan will be made consistent with these policies except where an alternative policy direction is recommended. The plans and policies reviewed for this Plan are listed in Table B-1.

Table B-1: Relevant Planning & Policy Documents Reviewed

Policy Document	Jurisdiction	Year
City of Bell Municipal Code	City of Bell	1998
City of Bell General Plan	City of Bell	2010
Metro Complete Streets Policy	Metro	2014
Metro First-Last Mile Strategic Plan & Planning Guidelines	Metro	2014
Metro Countywide Sustainability Planning Policy & Implementation Plan	Metro	2012
Metro Long Range Transportation Plan	Metro	2009
Metro Bicycle Transportation Strategic Plan	Metro	2006
Metro Rail to River Active Transportation Corridor Feasibility Study	Metro	2014
California Green Building Code	California	2012
AB 1358 – California Complete Streets Act	California	2008
SB 375 – Sustainable Communities and Climate Protection Act	California	2008
AB 32 – Global Warming Solutions Act	California	2006



Cyclist in Bell

City of Bell Ordinances & Policies

City of Bell Municipal Code

Table B-2: City of Bell Municipal Code

Topic	Description
Vehicles and Traffic License required Chapter 10.48.010	No person shall operate a bicycle propelled wholly or in part by muscular power upon any street of the city without first obtaining a license.
License Issuance Chapter 10.48.020	The city clerk or such other person as may be designated by the city council is authorized and directed to issue, upon written application therefore, bicycle licenses which will entitle such bicycle to be operated upon all the streets, exclusive of the sidewalks thereof, in the city.
License Fee Chapter 10.48.030	<p>The license fees to be paid for each bicycle shall be paid in advance as follows:</p> <ul style="list-style-type: none">A. For each new bicycle license and registration certificate, the sum of two dollars per calendar year or any portion thereof; andB. For each transfer of registration certificate, the sum of one dollar; andC. For each replacement of a bicycle license or registration certificate, the sum of one dollar; andD. For each bicycle license renewal, the sum of one dollar per calendar year.
License plates and registration cards Chapter 10.48.040	<p>The city shall provide bicycle license indicia (license plates) together with registration cards, such licenses and registration cards having numbers stamped thereon in numerical order. Such licenses shall be purchased from the California State Department of Motor Vehicles and are suitable for attachment upon the frames of bicycles, and the city clerk or such other person who may be designated by the city council shall attach one such license to the frame of each bicycle, and shall issue a corresponding registration card to the owner thereof upon the payment of the license fee provided for in Section 10.48.030.</p> <p>Such license shall remain attached during the existence of such license. The city clerk or other such person who may be designated by the city council shall also keep a record of the date of issue of each license, the number thereof, the name and address of the licensee, and the make, type and model of the licensed bicycle.</p>
Parking Meters Chapter 10.36.100	No person shall attach anything to or allow a bicycle, newsrack or any other article or thing to lean against a parking meter or a parking meter standard.

Topic	Description
Park Regulations Chapter 12. 36. 130	No person, except for law enforcement personnel, shall pedal, skate, ride or propel any bicycle, skateboard, skates, roller blades, scooters or similar wheeled recreational devices in any public park, civic center or city public property designated by resolution of the city council and posted in accordance with this section.
Transportation Demand Management Chapter 10.52.030. B. 1. d	Nonresidential development of twenty-five thousand (25,000) square feet or more shall provide the following to the satisfaction of the city: a bulletin board, display case or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information in the area shall include bicycle route and facility information, including regional/local bicycle maps and bicycle safety information.
10.52.030. B. 2. c	<p>Nonresidential development of fifty thousand (50,000) square feet or more shall comply with subsection (B)(1) of this section and shall provide all of the following measures to the satisfaction of the city:</p> <p>Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles per the first fifty thousand (50,000) square feet of nonresidential development and one bicycle per each additional forty thousand (40,000) square feet of nonresidential development. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number. A bicycle parking facility may also be a fully enclosed space or locker accessible only to the owner or operator of the bicycle, which protects the bike from inclement weather. Specific facilities and location (e.g., provisions of racks, lockers, or locked room) shall be to the satisfaction of the city.</p>
10.52.030. B. 3. d	<p>Nonresidential development of one hundred thousand (100,000) square feet or more shall comply with subsections (B)(1) and (B)(2) of this section, and shall provide all of the following measures to the satisfaction of the city:</p> <p>Safe and convenient access from the external circulation system to bicycle parking facilities on site.</p>



City of Bell welcome sign in downtown

City of Bell General Plan (2010)

Circulation Element

The City of Bell's Circulation Plan addresses the need for alternative transit accommodations. The City of Bell adopted a Transportation Demand Management (TDM) Ordinance to encourage alternative transit.

The TDM Ordinance requires that all new non-residential development provide public transit information, carpool/vanpool parking spaces, bike racks to encourage employees and visitors to use buses, carpool/vanpool, bicycle, or other alternative transit modes. Table 2-3 and Table 2-4 below list all of the objectives of the Circulation Plan pertaining to bicycling.

Table B-3: City of Bell General Plan

Circulation Element	Description
Objective	Maintain and improve a circulation system that will accommodate existing and future transportation needs
Objective	Recognize that bicycles are a reasonable mode of transportation and a viable alternative to motor vehicles
Circulation Element Policies	Description
Policy 11	Continue to encourage bicycle ridership.
Policy 12	Continue to consider traffic and parking restrictions along narrow streets.
Policy 13	Continue to consider the feasibility of including bikeways during the planning and construction stages of roadway improvements.
Policy 14	Continue to promote the separation of pedestrians, bicycle and motor vehicle traffic.
Policy 15	Continue to encourage new developments to accommodate bicycles as a mode of transportation.
Policy 17	Continue to explore the feasibility of parking districts as an option to address parking needs.
Circulation Element Programs	Description
Program 8	Continue to pursue the development of a sub-regional bike path along the Southern Pacific Right-of-Way and Randolph Street; work with appropriate jurisdictions to accomplish its development and use.
Program 9	Continue to implement a bicycle and pedestrian safety program.
Program 10	Investigate the feasibility of preparing a bikeway plan or pursuing cooperative ventures with other public agencies for bikeway funding.
Program 11	Direct the Traffic and Beautification Commission to investigate and recommend possible intersection modifications, including possible street closure which would reduce traffic impact and improve safety.

Relevant Regional & State Policies & Plans

Los Angeles County Metropolitan Transportation Authority (Metro)

Metro Complete Streets Policy (2014)

The Complete Streets Policy establishes active transportation improvements as integral elements of the countywide transportation system. The policy requires that all future transportation improvements undertaken or funded by Metro include the provision/consideration of active transportation elements. The policy identifies opportunities and actions where Metro can support local Complete Streets implementation. For example, as part of the policy's implementation strategy, Metro will work with partner agencies and local jurisdictions to incorporate complete streets infrastructure into all transportation projects in a manner that expands the active transportation network and closes gaps.

County of Los Angeles Bicycle Master Plan (2012)

The County of Los Angeles Bicycle Master Plan (BMP) proposes to build on the existing 144 miles of bikeways throughout the unincorporated portions of the County and install approximately 831 miles of new bikeways in the next 20 years. The following relevant goals and policies are included in the County BMP:

- **Goal 1:** Expanded, improved, and interconnected system of county bikeways and bikeway support facilities to provide a viable transportation alternative for all levels of bicycling abilities, particularly for trips of less than five miles.
 - » IA. 1.6.1: Identify where bicycle parking facilities are needed, and identify the appropriate type.
- **Goal 2:** Increased safety of roadways for all users.
 - » IA.2.2.1: Identify opportunities to remove travel lanes from roads where there is excess capacity in order to provide bicycle facilities.

- » Policy 2.3: Support traffic enforcement activities that increase the safety of people bicycling.
- » IA 2.5.1: Implement improvements that encourage safe bicycle travel to and from school.

- **Goal 3:** Develop education programs that promote safe bicycling.
 - » Policy 3.1: Provide bicycle education for all road users, children and adults.
 - » 3.1.1: Offer bicycle skills trainings, bicycle safety classes, and bicycle repair workshops.
- **Goal 4:** Encouragement Programs.
 - » Policy 4.1: Support organized rides or cycling events, including those that may include periodic street closures in the unincorporated areas.
 - » Policy 4.2: Encourage non-automobile commuting.
- **Goal 5:** Community supported bicycle network.
- **Goal 6:** Funded bikeway plan.
 - » Policy 6.1: Identify and secure funding to implement this Bicycle Master Plan.

More information on the County's Bike Plan can be found at: <http://dpw.lacounty.gov/pdd/bike/masterplan.cfm>

Metro First-Last Mile Strategic Plan & Planning Guidelines (2014)

Metro's First Last Mile Strategic Plan, adopted by the Metro Board in April 2014, seeks to better coordinate infrastructure investments in rail station and bus stop areas to extend the reach of transit services. The Plan utilizes the concept of "the Pathway" – a series of active transportation spine routes that link travelers to and from transit station areas by foot and bicycle.

More information can be found here: <http://media.metro.net/board/Items/2014/04/april/20140424rbmitem7.pdf>.

Metro Countywide Sustainability Planning Policy & Implementation Plan (2012)

The Sustainability Plan lays out several Principles and Priorities that will help the agency “bring greater clarity, meaning, and consistency to its approach for implementing the ‘sustainability’ commitments currently reflected in its principal values, business goals, and sustainability mission and vision.” Some of the principles and priorities that are relevant to the City of Bell are:

- **Prosperity.** Reduce transportation costs for residents and provide the mobility necessary to increase economic competitiveness.
- **Green Modes.** Promote clean mobility options to reduce criteria pollutants, greenhouse gas emissions, and dependence on foreign oil.
- **Healthy Neighborhoods.** Improve public health through traffic safety, reduced exposure to pollutants, and design and infrastructure for active transportation.
- **Community Development.** Design and build transportation facilities that promote infill development, build community identity, and support social and economic activity.
- **Context Sensitivity.** Build upon the unique strengths of Los Angeles County’s communities through strategies that match local and regional context and support investment in existing communities.

By adopting the above principles, Metro has committed to supporting initiatives aimed at intermodal connectivity, active travel modes, and healthy neighborhoods. However, these principles and priorities require implementation at the local level.

Metro Long Range Transportation Plan (2009)

Metro’s Long Range Transportation Plan (LRTP) lays out the agency’s commitment to increasing the share of trips in the County made by bicycle and on foot. The LRTP states that “bicycle and pedestrian programs are critical components of a successful transit system, as transit riders should be able to access buses and trains without having to drive a vehicle to and from transit stations. The sustainability of our transportation system depends upon the interface between modes.” The City of Bell’s Bicycle Master Plan will advance Metro’s goal of connecting people to transit without them having to drive to stations or stops.

More information can be found at: <https://www.metro.net/projects/reports/>

Metro Bicycle Transportation Strategic Plan (2006)

The goal of Metro’s Bicycle Transportation Strategic Plan (BTSP) is to integrate bicycle use in transportation projects. By promoting the bicycle as a viable transportation mode, the BTSP offers a vision of a Los Angeles County region with improved overall mobility, air quality, and opportunities for active living.

More information can be found here: http://media.metro.net/board/Items/2006/02_february/20060215P&PItem6%20Atta.pdf

Metro Rail to River Intermediate Active Transportation Corridor Feasibility Study (2014)

The Rail to River Intermediate Active Transportation Corridor (Rail to River Intermediate ATC) feasibility study was created to determine the viability, benefits and cost consideration of developing an intermediate active transportation corridor along the 8.3 miles of the Metro-owned northern segment of the Harbor Subdivision in South Los Angeles. For the City of Bell, Randolph Street is considered for an alternative alignment for Phase 2 of the project with either a Class I shared-use path or Class II on-street bike lane (Figure 2-1).

State of California

California Green Building Code (2012)

The California Green Building Code includes bicycle parking requirements and standards for new development. The California Green Building Code bicycle-related requirements are presented in the following table.

AB 1358 – California Complete Streets Act of 2008

The 2008 California Complete Streets Act requires that municipalities, “upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, people bicycling, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.”¹

SB 375 – Sustainable Communities and Climate Protection Act of 2008

The Sustainable Communities and Climate Protection Act (SB 375) supports the State of California’s climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of fostering more sustainable communities.

Under SB 375, the California Air Resources Board (ARB) sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, ARB established these targets for 2020 and 2035 for each region covered by one of the State’s MPOs; the Southern California Association of Governments (SCAG) is the MPO covering the City of Bell. SCAG has prepared a sustainable communities strategy (SCS) to guide regional efforts to meet GHG emission reduction targets. Encouragement of non-motorized transportation modes is one tactic to lower transportation-related emissions.

More information can be found at: <http://www.arb.ca.gov/cc/sb375/sb375.htm>

[arb.ca.gov/cc/sb375/sb375.htm](http://www.arb.ca.gov/cc/sb375/sb375.htm)

AB 32 – Global Warming Solutions Act of 2006

In 2006, the California Legislature passed and the Governor signed the Global Warming Solutions Act, which sets the 2020 greenhouse gas emissions reduction goal into state law. It also directed the California Air Resources Board (CARB) to develop action plans for meeting those GHG reduction targets. SB 375, adopted in 2008 to require coordination of transportation and land use planning, is one of the tools supporting CARB’s goals. More information can be found here: <http://www.arb.ca.gov/cc/ab32/ab32.htm>

Relevant Education and Encouragement Programs

Education and Encouragement programs are designed to promote active transportation, safety, and overall healthy living for communities. This review of existing education and encouragement programs relating to bicycling is helpful to understand how bicycle transportation is being supported by the city or other government bodies. The Bicycle Master Plan will provide strategies to capitalize upon these existing programs and will recommend additional education and education programs.

City of Bell Education and Encouragement Programs Go Green

Currently, the City of Bell has created the “Go Green” initiative to encourage residents to make conscience decisions when purchasing or traveling. The Go Green initiative also encourages the use of active transportation modes such as bicycling.

Safe Routes to School Grant Funding Cities in the Gateway Cities Council of Governments (COG) have applied for multiple state and federal Safe Routes to Schools grants in recent years and have been awarded

¹State of California. 2008. California Complete Streets Act. Government Code Sec. 65040.2 and 65302. Legislative Counsel’s Digest.

several grants, primarily for infrastructure improvements. Some of these cities have used Safe Routes to School funds for bicycling and walking infrastructure.

Police Department Enforcement Activities

Local law enforcement agencies have teams of traffic officers who conduct enforcement activities at local schools and partner with the school districts to address school circulation issues. Additionally, police departments are involved in pedestrian education activities at local schools, pedestrian safety training, and various enforcement activities such as crosswalk stings geared toward motorists.

Regional Education and Encouragement Programs

Safe Routes to Schools

Metro is currently working on a Safe Routes to School pilot program with the intention of becoming a county-wide program. Metro is working with Los Angeles County municipalities encourage local support for the program in cities throughout the county. The program consists of five key components: education, engineering, encouragement, enforcement, and evaluation, which are described below:

- Education – Classroom lessons teach children the skills necessary to navigate through busy streets and show them how to be active participants in the program.
- Engineering – Create physical improvements to the infrastructure surrounding the school, reducing speeds, and establishing safer crosswalks and pathways.

- Encouragement – Events, contests, and promotional materials are incentives that encourage children and parents to try walking and biking.
- Enforcement – Police officers, crossing guards, and law enforcement officials participate throughout the Safe Routes process to encourage safe travel through the community.
- Evaluation – Program participation is regularly monitored to determine the growth in student and parent participation.

County-Wide Bicycle Education Programs

In 2015, the Los Angeles County Bicycle Coalition and Metro offered free bicycle education classes through an Office of Traffic Safety grant. Classes provide information on how to ride a bicycle in traffic, improve visibility on the road, and make cycling a part of everyday life. Classes were offered in North Long Beach in the summer of 2015. This was the second time Metro has received the Office of Traffic Safety bicycle education grant; it is hoping to continue the program on a bi-annual basis.

Los Angeles Unified School District Beyond the Bell Program

The City of Bell, as part of the Los Angeles Unified School District, participates in the Youth Services After School Program. The program based in Bell Senior High School provides nutrition, fitness, and enrichment activities that best meet the needs of the participants. It also promotes good-health, healthy food options, and daily moderate to vigorous physical activity.

The Los Angeles Unified School District Beyond the Bell program provides school children with access to healthy food and physical activity.



APPENDIX C: FUNDING SOURCES

Funding Opportunities

A variety of options exist to further plan, design, and construct bicycle transportation projects, including funding from federal, state, regional, local, and private sources. This section provides information on potential funding sources to support agency efforts to find outside funding sources to implement bicycle improvements.

Federal Sources

Fixing America's Surface Transportation Act (FAST Act)

The FAST Act, which replaced Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2015, provides long-term funding certainty for surface transportation projects, meaning States and local governments can move forward with critical transportation projects with the confidence that they will have a Federal partner over the long term (at least five years).

The law makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects and providing new safety tools. It also allows local entities that are direct recipients of Federal dollars to use a design publication that is different than one used by their State DOT.

More information: <https://www.transportation.gov/fastact>.

MAP-21 – Surface Transportation Program

A wide variety of bicycle and pedestrian improvements are eligible, including on-street bicycle transportation facilities, off-street trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities.

More information: <https://www.fhwa.dot.gov/map21/factsheets/stp.cfm>

MAP-21 – Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The amount of CMAQ funds depends on the state's population share and on the degree of air pollution. Recent revisions were made to bring CMAQ in line with the new MAP-21 legislation. There is a broader emphasis on projects that are proven to reduce PM-2.5. Eligible projects include: "Constructing bicycle and pedestrian facilities (paths, bicycle racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips; (and) non-construction outreach related to safe bicycle use." Studies that are part of the project development pipeline (e.g., preliminary engineering) are eligible for funding. "An assessment of the project's expected emission reduction benefits should be completed prior to project selection."

More information: http://www.fhwa.dot.gov/environment/air_quality/cmaq/

Bus and Bus Facilities Program: State of Good Repair

Can be used for projects to provide access for bicycles to public transportation facilities, to provide shelters and parking facilities for bicycles in or around public transportation facilities, or to install equipment for transporting bicycles on public transportation vehicles.

More information: http://www.fta.dot.gov/grants/13094_3557.html

Surface Transportation Block Grant (STBGP)

The FAST Act expanded the existing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBGP) which places more decision-making power in the hands of state and local governments. The FAST Act simplifies the list of uses eligible for program funds and increases the ways that funds can be used for local roads and rural minor collectors. The Transportation Alternatives Program (TAP) is a set-aside program of this block grant. The new program requires 55 percent of program funds be distributed within each state on the basis of population, compared to 50 percent under STP.

In California, STBGP is allocated through the Regional Surface Transportation Program (RSTP). The TAP program is allocated through the Active Transportation Program (ATP).

More information: http://www.dot.ca.gov/hq/transprog/federal/rstp/Official_RSTP_Web_Page.htm

New Opportunities for Bicycle and Pedestrian Infrastructure Financing Act

A proposed bill in Congress to set aside one percent of TIFIA's \$1 billion for bicycle and pedestrian infrastructure projects, such as the conversion of abandoned rail corridors for trails, bicycle signals, and path lighting. For these projects, TIFIA's minimum project cost would be \$2 million. Eligible costs include: planning & feasibility studies, construction, and land acquisition. The bill reserves 25 percent of project funding for low-income communities.

More information: <https://www.congress.gov/bill/113th-congress/house-bill/3978>

Highway Safety Improvement Program

The FAST Act eliminates the ability of states to shift funds designated for infrastructure safety programs to behavioral or educational activities, ensuring resources remain in construction-related programs. It also designates several new safety improvements eligible for funding including vehicle-to-infrastructure communication and roadway improvements that provide separation between pedestrians and motor vehicles.

With regards to unpaved roads, the FAST Act allows states to "opt out" of collecting safety inventory data for unpaved/gravel roads if certain conditions are met, as long as the states continue to collect data related to serious crashes and fatalities. It also requires that U.S. DOT to review data and report to Congress on best practices for roadway infrastructure improvements that enhance commercial motor vehicle safety.

HSIP is a data-driven funding program, and eligible projects must be identified through analysis of crash experience, crash potential, crash rate, or other similar metrics. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Bicycle and pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan. In California, HSIP is administered by Caltrans.

More information: <http://dot.ca.gov/hq/LocalPrograms/hsip.html>

Partnership for Sustainable Communities

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to “improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure - “Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.” The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants). The San Gabriel Valley Council of Governments and Caltrans should track Partnership communications and be prepared to respond proactively to announcements of new grant programs.

More information: <http://www.epa.gov/smartgrowth/partnership/>

Rivers, Trails, and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is the community assistance arm of the National Park Service. RTCA provides technical assistance to communities in order to preserve open space and develop trails. The assistance that RTCA provides is not for infrastructure, but rather building plans, engaging public participation, and identifying other sources of funding for conversation and outdoor recreation projects.

More information: <http://www.nps.gov/pwro/rtca/who-we-are.htm>

Community Development Block Grants

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG

grantees may “use Community Development Block Grant funds for activities that include (but are not limited to): acquiring real property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grant funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.” Trails and greenway projects that enhance accessibility are the best fit for this funding source.

More information: www.hud.gov/cdbg

Community Transformation Grants

Community Transformation Grants administered through the Centers for Disease Control (CDC) support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if such improvements benefit groups experiencing the greatest burden of chronic disease.

More information: <http://www.cdc.gov/communitytransformation/>

National Scenic Byways Program

The Federal Highway Administration (FHWA), part of the USDOT manages the National Scenic Byways Grant Program, which recognizes roads having outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities by providing grants that support projects that manage and protect these roads and improve visitor facilities.

More information: <http://www.fhwa.dot.gov/discretionary/2012nsbp.cfm>

Transportation Investments Generating Economic Recovery (TIGER) Program

Can be used for innovative, multimodal and multi-jurisdictional transportation projects that promise significant economic and environmental benefits to an entire metropolitan area, a region, or the nation. These include bicycle and pedestrian projects. Project minimum is \$10 million.

More information: <https://www.transportation.gov/tiger>

U.S. Environmental Protection Agency – Brownfields Program

Assessment grants provide funding for a grant recipient to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites. Revolving Loan Fund (RLF) grants provide funding for a grant recipient to capitalize a revolving loan fund and to provide sub-grants to carry out cleanup activities at brownfield sites.

More information: <https://www.epa.gov/brownfields/types-brownfields-grant-funding>

State Sources

Active Transportation Program

With the consolidation of federal funding sources in MAP-21 and again under the FAST Act, the California State Legislature has consolidated a number of state-funded programs centered on active transportation into a single program. The resulting Active Transportation Program (ATP) consolidated the federal programs, Bicycle Transportation Account, the Safe Routes to Schools Program, and the Recreational Trails Program.

The ATP's authorizing legislation (signed into law by the Governor on September 26, 2013) also includes placeholder language to allow the ATP to receive funding from the newly established Cap-and-Trade Program in the future. The Statewide Competitive ATP has \$180 million available statewide for the 2014/2015 and 2015/2016 fiscal cycles. The Regional Competitive ATP will have additional funding available for the SCAG region in the 2014/2015 and 2015/2016 fiscal cycles. The California Transportation Commission writes guidelines and allocates funds for the ATP, while the ATP will be administered by the Caltrans

Division of Local Assistance. Goals of the ATP are currently defined as the following:

- Increasing the proportion of trips accomplished by biking and walking;
- Increasing safety and mobility for active transportation users;
- Advancing active transportation efforts of regional agencies to achieve the greenhouse gas reduction goals;
- Enhancing public health;
- Ensuring that disadvantaged communities fully share in the benefit of the program; and,
- Providing a broad spectrum of projects to benefit many types of active transportation users.

More information: <http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html>

State Transportation Improvement Program (STIP)

Funds new construction projects that add capacity to the transportation network. STIP consists of two components, Caltrans' Interregional Transportation Improvement Program (ITIP) and regional transportation planning agencies' Regional Transportation Improvement Program (RTIP). STIP funding is a mix of state, federal, and local taxes and fees. Bicycle and pedestrian projects may be programmed under ITIP and RTIP.

More information: <http://www.catc.ca.gov/programs/stip.htm>

Caltrans Planning Grants

Caltrans also administers the Transportation Planning Grant Program that funds projects to improve mobility and lead to the planning, programming, and implementation of transportation improvement projects. Most recently, Caltrans awarded \$10.0 million in grant funding to 70 applicants, in two sub-categories: Environmental Justice grants and Community Based Transportation Plan grants.

More information: <http://www.dot.ca.gov/hq/tpp/grants.html>

Environmental Justice Grant Program

The Environmental Justice (EJ) Grant Program promotes the involvement of low-income, minority communities, and Native American tribal governments in the planning for transportation projects. EJ grants have a clear focus on transportation and community development issues to prevent or mitigate disproportionate, negative impacts while improving mobility, access, safety, and opportunities for affordable housing and economic development. Grants are available to cities, counties, transit districts, and tribal governments.

More information: http://www.dot.ca.gov/hq/tpp/offices/ocp/completed_projects_ej.html

Community Based Transportation Planning Grant Program

The Community Based Transportation Planning (CBTP) grant program promotes transportation and land use planning projects that encourage community involvement and partnership. These grants include community and key stakeholder input, collaboration, and consensus building through an active public engagement process. CBTP grants support livable and sustainable community concepts with a transportation or mobility objective to promote community identity and quality of life.

More information: http://www.dot.ca.gov/hq/tpp/offices/ocp/completed_projects_cbtp.html

Petroleum Violation Escrow Account

In the late 1970s, a series of federal court decisions against selected United States oil companies ordered refunds to the states for price overcharges on crude oil and refined petroleum products during a period of price control regulations. To qualify for Petroleum Violation Escrow Account (PVEA) funding, a project must save or reduce energy and provide a direct public benefit within a reasonable time frame. In California, Caltrans Division of Local Assistance administers funds for transportation-related PVEA projects. PVEA funds do not require a match and can be used as match for additional federal funds.

More information: www.dot.ca.gov/hq/LocalPrograms/lam/prog_g/g22state.pdf

Office of Traffic Safety (OTS) Grants

The Office of Traffic Safety (OTS) distributes grants statewide to establish new traffic safety programs or fund ongoing safety programs. OTS grants are supported by federal funding under the National Highway Safety Act and MAP-21. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle safety is included in the list of traffic safety priority areas. Eligible grantees are governmental agencies, state colleges, state universities, local town and county government agencies, school districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. The California application deadline is January of each year. There is no maximum cap to the amount requested; however, all items in the proposal must be justified to meet the objectives of the proposal.

More information: <http://www.ots.ca.gov/Grants/Apply/default.asp>

Environmental Enhancement and Mitigation Funds

The Environmental Enhancement Mitigation Program (EEMP) provides grant opportunities for projects that indirectly mitigate environmental impacts of new transportation facilities. Projects should fall into one of the following three categories: highway landscaping and urban forestry, resource lands projects, or roadside recreation facilities. Funds are available for land acquisition and construction. The local Caltrans district must support the project. The average award amount is \$250,000.

More information: <http://www.dot.ca.gov/hq/LocalPrograms/EEM/homepage.htm>

Land and Water Conservation Fund

The Land and Water Conservation Fund is a federal program that provides grants for planning and acquiring outdoor recreation areas and

facilities, including trails. The fund is administered by the California State Parks Department. Cities, counties, and districts authorized to acquire and develop park and recreation space are eligible for grant funding. While non-profits are ineligible, they are allowed to apply in partnerships with eligible agencies. Applicants must fund the project entirely and will be reimbursed for half of the cost. Up to \$2.0 million was available in California in the 2012 round of grant funding.

More Information: http://www.parks.ca.gov/?Page_id=21360

California Strategic Growth Council

The Strategic Growth Council is a state agency that manages the Sustainable Communities Planning Grant and Incentives Program, as well as the Affordable Housing and Sustainable Communities (AHSC) program. The first program provides grants for development and implementation of plans that lead to significant reductions in greenhouse gas emissions, improve air and water quality, promote public health, promote equity, increase housing affordability, increase infill and compact development, revitalize urban and community centers, protect natural resources and agricultural lands, reduce automobile usage and fuel consumption, improve infrastructure systems, promote water conservation, promote energy efficiency and conservation, and strengthen the economy. The second program provides funding for land use, housing, transportation, and land preservation projects to support infill and compact development that reduces greenhouse gas emissions.

More information: http://sgc.ca.gov/m_grants.php

Regional & Local Sources

Clean Air Fund (AB 434/2766 – Vehicle Registration Fee Surcharge)

Administered by SCAQMD. Local jurisdictions and transit agencies can apply. Funds can be used for projects that encourage biking, walking, and/or use of public transit. For bicycle-related projects, eligible uses include: designing, developing and/or installing bikeways or establishing new bicycle corridors; making bicycle facility enhancements/improvements by installing bicycle lockers, bus bicycle racks; providing assistance with bicycle loan programs (motorized and standard) for

police officers, community members and the general public. Matching requirement: 10-15 percent.

More information at: <http://www.aqmd.gov/home/programs/local-government/local-government-detail?title=ab2766-motor-vehicle-subvention-program>

Measure R Sales Tax Revenue Local Return

Fifteen percent (15%) of the Measure R county sales tax is designated for use by local cities and the County of Los Angeles for transportation purposes, including bicycle-related uses such as infrastructure, signage, bicycle sharing, and education efforts.

Guidelines for the Local Return program can be found at: http://ebb.metro.net/projects_studies/local_return/images/measure-r-Local-Return-Guidelines.pdf

Metro Call for Projects

Every other year, Metro accepts Call for Projects applications in eight modal categories. The Call is a competitive process that distributes discretionary capital transportation funds to regionally significant projects. Capital funds are programmed 5 years out and typically provided, and design and right-of-way acquisition are eligible expenses as long as they are directly related and part of construction. So, a project awarded Call for Projects funds in 2016 would not be implemented until 2021.

More information at: https://www.metro.net/projects/call_projects/

Metro Open Streets Program

Metro will allocate up to \$2 million annually, through a competitive application process, to fund local Open Streets events in Los Angeles County cities. The first cycle announced in 2014 funded 12 open streets events to occur in 2015 and 2016.

More information at: <https://www.metro.net/projects/active-transportation/metro-open-streets-grant-program/>

Metro Transit-Oriented Development Planning Grants

\$5 million fund to spur the adoption of transit-supportive land use and other regulatory plans around station areas in order to increase access to and utilization of public transit. Eligibility is for Los Angeles County jurisdictions with land use authority within one-half mile of existing, planned, or proposed transit stations. The most recent cycle of application funding was approved in January 2015.

More information at: <https://www.metro.net/projects/tod/>

SCAG Sustainability Program

SCAG provides financial and technical assistance to member agencies for integrated land use and transportation planning. The 2013-2014 Sustainability Program emphasized:

- Projects that make measurable progress toward implementation
- Assistance to communities for updating General Plans
- Inter-jurisdictional and multi-stakeholder partnerships
- Outreach and education to the community and stakeholders on sustainable development
- Past Compass Blueprint partner jurisdictions may propose work that will move their plans closer to implementation.

More information at: <http://sustain.scag.ca.gov/Pages/default.aspx>

Transportation Development Act (TDA)

The TDA provides local agencies with two major sources of funding: the Local Transportation Fund (LTF) and the State Transit Assistance fund (STA). These funds contribute to the development and support of public transportation and are allocated to areas of each county based on population, taxable sales, and transit performance.

Administered by Metro in Los Angeles County, TDA Article 3 funds are allocated annually on a per capita basis to both cities and the County of Los Angeles for the planning and construction of bicycle and pedestrian facilities. Local agencies may either draw down these funds or place them

on reserve. Agencies must submit a claim form to Metro by the end of the fiscal year in which they are allocated. Failure to do so may result in the lapse of these allocations.

More information at: <http://www.metro.net/projects/tda/>

Developer Impact Fees

As a condition for development approval, municipalities can require developers to provide specific infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class II bicycle facilities for portions of on-street, previously-planned routes, and sidewalks. They can also be used to provide bicycle parking, shower and locker facilities, signal modifications, transit stop modifications, and stormwater modifications. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

Roadway, Construction, Repair and Upgrade

Planned resurfacing and road diets are one means of combining motor vehicle, transit, bicycle, and pedestrian projects into one, multimodal construction project. To ensure that planned roadway construction projects considers ways to combine multiple multimodal projects, it is important adopt a complete streets policy that includes a review all facility types during the each phase of the project. This policy and review process should follow California's 2008 Complete Streets Act and Caltrans'2014 Deputy Directive 64-R2 which require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

More information: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html

Utility Projects

By monitoring the capital improvement plans of local utility companies, it may be possible to coordinate upcoming utility projects with the installation of motor vehicle, transit, bicycle, and

pedestrian infrastructure within the same area or corridor. Often times, utility companies will mobilize the same type of forces required to construct transportation projects, resulting in the potential for a significant cost savings. These types of joint projects require a great deal of coordination, a careful delineation of scope items and some type of agreement or memorandum of understanding, which may need to be approved by multiple governing bodies.

Cable Installation Projects

Cable television and telephone companies sometimes need new cable routes within public right-of-way. Recently, this has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of travel lanes, it may be possible to request reimbursement for affected bicycle and pedestrian facilities to mitigate construction impacts. In cases where cable routes cross undeveloped areas, it may be possible to provide for new transportation facilities following completion of the cable trenching.

Private Sources

PeopleForBikes Community Grant Program

PeopleForBikes is a coalition of bicycle suppliers and retailers that has awarded \$2.9 million in community grants and leveraged an additional \$670 million since its inception in 1999. The community grant program funds bicycle paths and rail trails, as well as mountain bicycle trails, bicycle parks, BMX facilities, and large-scale bicycle advocacy initiatives. Spring 2015 grant awards ranged between \$800 and \$10,000 and contributed to greenway and other infrastructure projects, as well as bicycle parking and bicycle-related programming.

More information: <http://www.peopleforbikes.org/pages/community-grants>

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972, and today, it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

More information: <http://www.rwjf.org/applications/>

The Wal-Mart Foundation

The Wal-Mart Foundation offers a Local, State, and National Giving Program. The Local Giving Program awards grants of \$250 to \$5,000 through local Wal-Mart and Sam's Club Stores. Application opportunities are announced annually in February with a final deadline for applications in December. The State Giving Program provides grants of \$25,000 to \$250,000 to 501c3 nonprofits working within one of five focus areas: Hunger Relief & Nutrition, Education, Environmental Sustainability, Women's Economic Empowerment, or Workforce Development. The program has two application cycles per year: January through March and June through August. The Wal-Mart Foundation's National Giving Program awards grants of \$250,000 and more, but does not accept unsolicited applications.

More information: <http://foundation.walmart.com/apply-for-grants>

The Kodak American Greenways Program

The Conservation Fund's American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design, and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying, or political activities.

More information: <http://www.conservationfund.org>

Community Action for a Renewed Environment (CARE)

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to reduce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and "smart-growth" types of projects are eligible. Grants range between \$90,000 and \$275,000.

More information: <http://www.epa.gov/care/>

Corporate Donations

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bicycle and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

The Knight Cities Challenge

From a pool of \$5 million, The Knight Cities Challenge looks to award grant at the city, neighborhood, and block level that attract and keep talented employees in a city, ideas that attempt to improve economic prospects for individuals, and ideas that encourage civic involvement. The grant program is funded by the Knight Foundation and the funds are distributed over an 18 month period.

Plan4Health Coalitions

The American Planning Association (APA) and the American Public Health Association (APHA) received funding from the Centers for Disease Control and Prevention (CDC) to build local capacity in addressing population health goals and promoting the inclusion of health in non-traditional sectors such as transportation. Each proposal must address inactivity, unhealthy diets, and/or health equity. Awards will average \$150,000, and no more than two awards will be granted in a single state.

Other Sources

Volunteer programs may be developed to substantially reduce the cost of implementing some routes, particularly shared-use paths. For example, a local college design class may use such a shared-use route as a student project, working with a local landscape architectural or engineering firm. Work parties could be formed to help clear the right of way for the route. A local construction company may donate or discount services beyond what the volunteers can do. And a challenge grant program with local businesses may be a good source of local funding, in which the businesses (or residents) can "adopt" a route or segment of one to help construct and maintain it.