BIKE TO METRO RAIL URBAN AREA

WILLOW STATION

BIKE TRANSIT HUB ACCESS PLAN

Hub ID: 315 (Refer to Bike-Transit Hub Data Spreadsheet)
Name: Willow Station (Metro Blue Line)
Intersection: Long Beach Boulevard and 27th Street
Jurisdiction: City of Long Beach

INTRODUCTION

Bike Transit Hub Access Plans are part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking leading to transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. These improvements will receive priority funding in future Calls for Projects. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

EXISTING CONDITIONS

Metro's Willow Station is located on Long Beach Boulevard north of downtown Long Beach. It is in a medium density urban area with many parcels under redevelopment. Typical building heights are three to four stories. The station is bordered by a shopping center and an elementary school. Two medical centers, Long Beach Memorial Medical Center and Pacific Hospital, are within a quarter mile of the station. Veterans' Memorial Park is located just north of the station. .

- Medium density urban location with many parcels currently redeveloping, typically to 3- and 4-stories
- Land uses include a major medical center, a shopping plaza with supermarket, two elementary schools (Jackie Robinson Academy and Oakwood School), a neighborhood park (Veterans Memorial Park), and single-family residential neighborhoods
- Topography is mostly flat except for hills to the east.
- Major barriers include the Los Angeles River, which runs north-south approximately 10 blocks west, and I-405, which runs roughly east-west approximately 8 blocks north.

Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The three-mile area around Willow Station has slightly higher than average transit service and slightly lower than average median income than other transit hubs in the County. Population density is slightly lower in comparison to other transit hubs while the number of transit riders who live in the three-mile radius is slightly above average. Our analysis of transit and bicycle ridership at Willow Station indicates that it scores 183 out of 359, or in the 51st percentile of all bike-transit hubs.

The table on the next page draws on 2000 Census data, SCAG population and employment projects for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	118	Local Bus Service (Other)	1515
Metro Rail Riders	6035	Population (3 mile)	63,964
BRT Service	Future	Employment (3 mile)	68,427
Existing Transit Center	Yes	Household Income	$34,288
Metro Rapid	No	Transit Riders (3 mile)	9533

In addition, the following major activity centers and destinations are located within the study area:

- Jackie Robinson Academy on Long Beach Boulevard
- Oakwood School at Pacific Avenue and 27th Street
- Long Beach Memorial Medical Center
- Pacific Hospital of Long Beach

Bicycle Access Conditions

Key bicycle access observations include:

- The at-grade Blue Line tracks on Long Beach Boulevard present hazards for cyclists.
- To the west there is an intact, fine-grained grid of residential streets all the way to the Los Angeles River.
- Willow Street (running east-west) and Long Beach Boulevard (running north-south) are arterials with narrow lanes and on-street parking.
- Both 27th and 28th Streets are candidates for east-west connectors to the L.A. River path because both line up well with the west side of the station, cross Pacific Avenue at signals and are residential local streets west of Pacific. However, 27th connects more directly to the station, the adjacent shopping plaza, and the gated crossing of the Metro Blue line to reach the Medical Center to the east.
- Southbound Long Beach Boulevard has a pinch point approaching the tracks and an angled crossing of the two tracks.
- A 1.2-mile Class I bike path is planned along the former Pacific Electric right-of-way starting at Long Beach City College and extending northwest toward the Willow Blue line station. Due to existing development, the Class I path will not extend the entire way to the station.

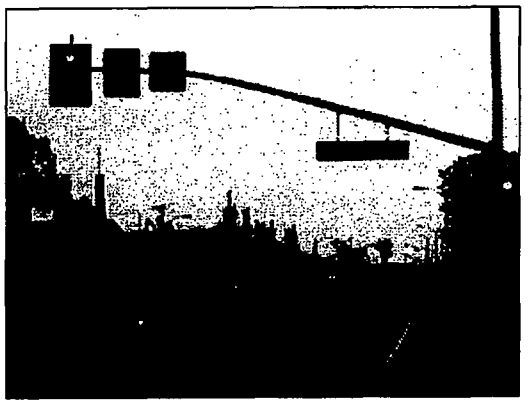
Bicycle Facilities

Existing bike lanes: Spring Street east of Long Beach Boulevard
Existing bike paths: None
Existing bicycle parking:

Location	Parking Type	Spaces	Accessibility	Security
Willow Station	Composition. Locker	8	Good	Good
Willow Station	eLocker	2	Good	Good
Willow Station	Racks	16	Good	Fair
Parking garage	Lockers	16	Good	Good

Existing Conditions

Pine Street approaching 28th Street



Spring Street at Long Beach Boulevard

Willow Street diagonal railroad crossing

Bike lockers at Willow Station

Bike racks at Willow Station

Willow strip mall by station garage showing bike signage

RECOMMENDED IMPROVEMENTS

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for the bicycle access routes to the Willow station are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Improve Pavement Condition	1	Spring Street: westbound at Long Beach Blvd	0.1	$10 to $20 per sq ft
Add Bike Lanes	1	Spring Street: westbound at Long Beach Blvd signal. Add through bike lane "pocket" by taking space from outer through lane	0.04	$1,000
Add bike route signage	2	Spring Street: between Long Beach Blvd and Pacific Avenue	0.21	$1,000
	3	27th Street: between LA River and Willow Station	0.84	$4,200
	4	28th Street: between east and west Pine Ave intersections	0.03	$400
	5	Pine Avenue: between Spring St and 27th St	0.38	$1,900
	6	Between Pacific Electric right-of-way Class I bike path and Willow Station. (see Notes)	1.28	$12,800

Intersection Improvements	Map Key	Location	Estimated Costs
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes		
Install intersection improvements such as pavement markings and signage to improve cyclist left turn from Spring to Pine	A	Pine Avenue at Spring Street	Striping $2 per linear foot. Signs: $200 each.
Add directional signage to direct cyclists between Willow St. and LA River Path	B	Willow Street at LA River Path. Current access directs cyclists through the residential streets and is not clear or direct.	$200 per sign
Improve the safety of southbound Long Beach Blvd bicycle travel over the tracks.	C	Long Beach Blvd at Blue Line tracks. Install pavement markings, flexible posts, or an in-street curb to allow bicyclists to safely cross tracks at a right angle.	$200 per flexible post
Suggested Bicycle Parking			
On sidewalks in retail/commercial/restaurant blocks, provide individual inverted-U's as needed; specify square tubing. ($90 per 2-bike U-rack)			
On sidewalks in Wrigley Marketplace and along Willow Street retail.			
Add Bike Parking Guide Signs near stations and parking garage.			

Other Notes:

The suggested route between the end of the Pacific Electric ROW Class I bike path and Willow Station is: from the intersection of the Pacific Electric ROW and Martin Luther King Jr. Ave, south on MLK Ave, west on 23rd St, north on Olive Ave, west on Burnett Street, north on Earl Ave into Wrigley Marketplace. This route allows cyclists to cross Atlantic Avenue, Long Beach Boulevard and Willow Street at signals. It also allows cyclists the right-of-way at two-way stop controlled intersections, which is especially important when cyclists must turn left at an intersection. The intersection of MLK and the Pacific Electric ROW is currently uncontrolled, and will need to be improved to allow cyclists a way to cross traffic on MLK safely. Signs and stencils alerting motorists to cyclists and directional signage for cyclists should be installed within Wrigley Marketplace parking lot.

FIGURE 1: WILLOW STATION BIKE-TRANSIT HUB RECOMMENDATIONS