# 4 MOBILITY PLAN

## Mobility Plan Objectives

The Harbor Corridor Plan seeks to expand and improve the ways that people move along and through the corridor. While Harbor Boulevard currently serves many different types of transportation, the roadway's design and operation prioritizes the movement of cars and trucks through Santa Ana. This emphasis is understandable as the corridor carries over 40,000 cars and trucks every day.

However, people travel through the Harbor Corridor in many other ways. Bus stops on Harbor Boulevard see thousands of people get on or off a bus along the corridor. All of these people and more walk along the sidewalks during the day and night. Finally, hundreds of people ride their bikes on the corridor's streets and sidewalks. Local residents, workers, and students of all ages asked for a greater emphasis on transit, pedestrian pathways, and bike facilities to create safer and more efficient options to travel to and from their homes, businesses, and schools. The Harbor Corridor Plan establishes the framework for improved transportation based on three primary objectives.

### 1. Integrate with Local and Regional Transit Improvements

The mobility plan emphasizes a sustainable approach consistent with the City's Go Local Transit Vision which aims to link downtown, employment centers, educational facilities, and expanded housing choices. A central focus is the new bus rapid transit (BRT) services that augment local bus service along Harbor Boulevard and Westminster Avenue/17th Street. The mobility plan also anticipates future transit stops for the fixed guideway system that will run along the Pacific Electric right-of-way and link to the Santa Ana Regional Transportation Center (SARTC) in downtown.

### 2. Safe and Efficient Pathways for Pedestrians and Bicyclists

Improved pedestrian and bicycle facilities and linkages are a cornerstone of a robust transportation network. The Harbor Corridor Plan encourages a variety of building designs to create a comfortable environment for walking and biking. New street layouts facilitate safe bicycle and pedestrian travel along Harbor Boulevard and efficient connections to the regional bicycle network, including the Santa Ana River Trail.

### 3. Preserve Capacity for Cars and Trucks

The Harbor Corridor Plan continues to recognize the important role Harbor Boulevard plays in circulating vehicular traffic through the region by maintaining the six traffic lanes and expanding intersection turning options. The plan also encourages the consolidation of driveways along the corridor, creating more efficient traffic flows.

## Mobility Context

### Circulation Element

The Circulation Element of the Santa Ana General Plan is the City's blueprint for transportation planning. The purpose of the Element is to plan for a transportation network that meets the mobility needs of those living, working, and visiting the City. The Circulation Element goals reflect the City's vision for a comprehensive circulation system that is safe, efficient, and attractive for all users. The Harbor Corridor Plan implements the Circulation Element's goals and policies along Harbor Boulevard. The element's eight circulation goals (adopted as of August 2014) are listed below.

#### Circulation Element Goals

Goal I. Provide and maintain a comprehensive circulation system that facilitates the efficient movement of people and goods throughout the City, and enhances its economic viability.

Goal 2. Provide design and construction that facilitate safe utilization of the City's transportation systems.

Goal 3. Provide a full spectrum of travel alternatives for the community's residents, employees, and visitors.

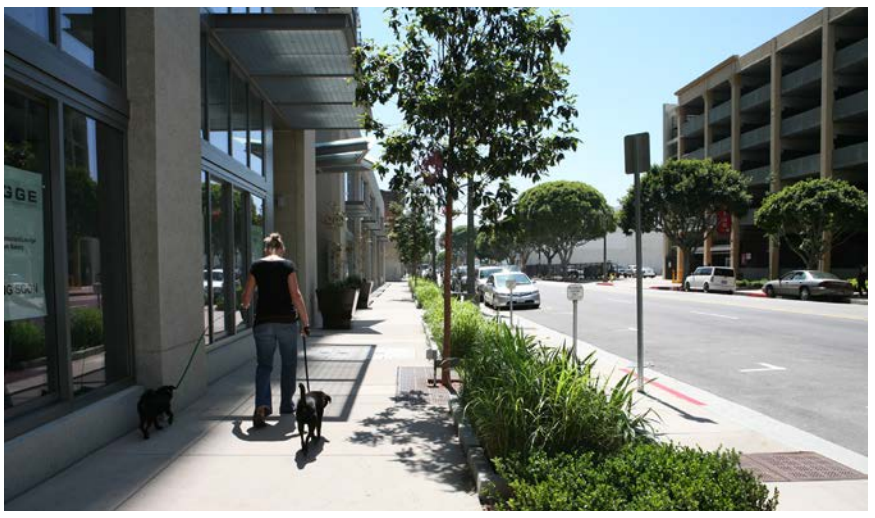
Goal 4. Fully coordinate transportation and land use planning activities.

Goal 5. Create attractive circulation corridors to enhance the City's image.

Goal 6. Protect local streets from through traffic to preserve neighborhood character.

Goal 7. Utilize alternative parking strategies as a means of managing transportation demand.

Goal 8. Strengthen the coordination of transportation and land use planning activities with adjacent jurisdictions and regional agencies.





### Complete Streets Act

The Complete Streets Act was passed in 2007 to ensure that the transportation plans of California communities meet the need of all users of the roadway, including pedestrians, bicyclists, users of public transit, motorists, children, the elderly, and the disabled. The purpose of this act is to make roads safer and more convenient for people who choose to walk, ride a bike, or take transit, and to aid in reducing traffic congestion, auto-related air pollution, and the production of climate-changing greenhouse gases. These goals are consistent with the vision for the Harbor Boulevard corridor to improve transportation conditions and facilities for all types of travel.

# Streets and Parking

## Street Network

Figures 4-1 and 4-2 illustrate the existing street network and the City's Master Plan of Streets and Highways for the Harbor Corridor Plan area. The majority of roadways will remain the same with the exception of the extension of Santa Ana Boulevard as a four-lane (two lanes in each direction) arterial street along the Pacific Electric right-of-way from Fairview Street to State Route 22.

The extension of Santa Ana Boulevard would pass through the intersection of Harbor Boulevard and Westminster Avenue as a grade-separated overpass (meaning it would not connect with Harbor Boulevard or Westminster Avenue). This extension and configuration will divert some vehicular traffic away from Harbor Boulevard, enabling the corridor to accommodate future growth in the local area and through the Harbor Corridor Plan without deteriorating vehicular capacity.

The current speed limit along Harbor Boulevard is 45 miles per hour—a speed that is best suited for a roadway designed primarily for vehicular traffic and low levels of pedestrian, bicycle, and transit activity. Harbor Boulevard is identified in the City's Circulation and Housing Elements as a transit corridor and in this Specific Plan as a multimodal corridor with significant current and future levels of pedestrian, bicycle, and transit activity. Accordingly, the City proposes street designs and a goal to reduce the speed limit along Harbor Boulevard within this Specific Plan. A lower speed limit enables the roadway to efficiently move vehicles through the corridor while improving safety for pedestrians and bicyclists.

## Parking

On-street parking is limited within the Harbor Corridor and is not currently permitted along Harbor Boulevard. The mobility plan introduces new street designs that add on-street parallel parking to Harbor Boulevard to create a safer environment for pedestrians and bicyclists. Such parking will also augment parking options for shoppers and other visitors, reducing the overflow parking experienced by adjacent neighborhoods.

# Transit

### Local Bus Service

The residents of Santa Ana rely heavily on transit services as a primary mode of travel to work, school, or other activities. Residents and visitors alike are increasingly turning to transit for recreational trips. The Harbor Corridor is currently served by four Orange County Transportation Authority (OCTA) bus routes: 43, 60, 64, and 66. Together, these lines serve tens of thousands of riders every day, including several thousand within the Harbor Corridor. Figure 4-3 illustrates the current bus routes and ridership levels.

The Westminster Avenue/17th Street, 1st Street, McFadden Avenue, and Harbor Boulevard corridors are considered High Frequency Transit Corridors by OCTA in its Long Range Transportation Plan. OCTA and other regional transit agencies will continue to prioritize future transit investments in these corridors.

### Bus Rapid Transit

Bus Rapid Transit (BRT) is a high quality bus service that provides more frequent service than local bus service at stations set along major corridors. Further, BRT systems generally have a distinct identity, incorporate traffic signal synchronization, and sometimes serve new bus shelters with real-time bus arrival information. BRT is considered a more affordable alternative to light rail or commuter rail (like Metrolink or Amtrak) and can often attract new transit riders through improved transit service quality.

The Orange County Transportation Authority (OCTA) is planning to introduce three routes of BRT service over the next decade, all of which will directly serve Santa Ana. Known as the "Bravo!" service, OCTA introduced the first line along Harbor Boulevard in June 2013 (see Figure 4-4). As shown in Figure 4-5, two future lines will run from Santa Ana to Long Beach (on Westminster Avenue/17th Street) and from Brea to Irvine.

The BRT service on Harbor Boulevard operates north and south along a 22-mile route, linking Santa Ana to Fullerton, Anaheim, Garden Grove, Fountain Valley, Costa Mesa, and Newport Beach. The service provides regional connections to Metrolink and Amtrak rail services, as well as other OCTA bus services at the Fullerton Transportation Center. Bus stop locations in Santa Ana are at the intersections of Harbor Boulevard and Westminster Avenue, First Street, and McFadden Avenue.

The Westminster Avenue/17th Street Bravo! line is proposed to travel along an east–west route between Santa Ana and Long Beach, linking the study area to Garden Grove, Westminster, Seal Beach, and Long Beach. The BRT service on Westminster/17th Street would provide connections to the Harbor Boulevard and Bristol/State College BRT lines, as well as Metrolink, Amtrak, and other OCTA bus services via an eastern terminal at SARTC. Proposed bus stop locations in Santa Ana include the intersection of Harbor Boulevard and Westminster Avenue.

**Figure 4-1. Existing Street Network**

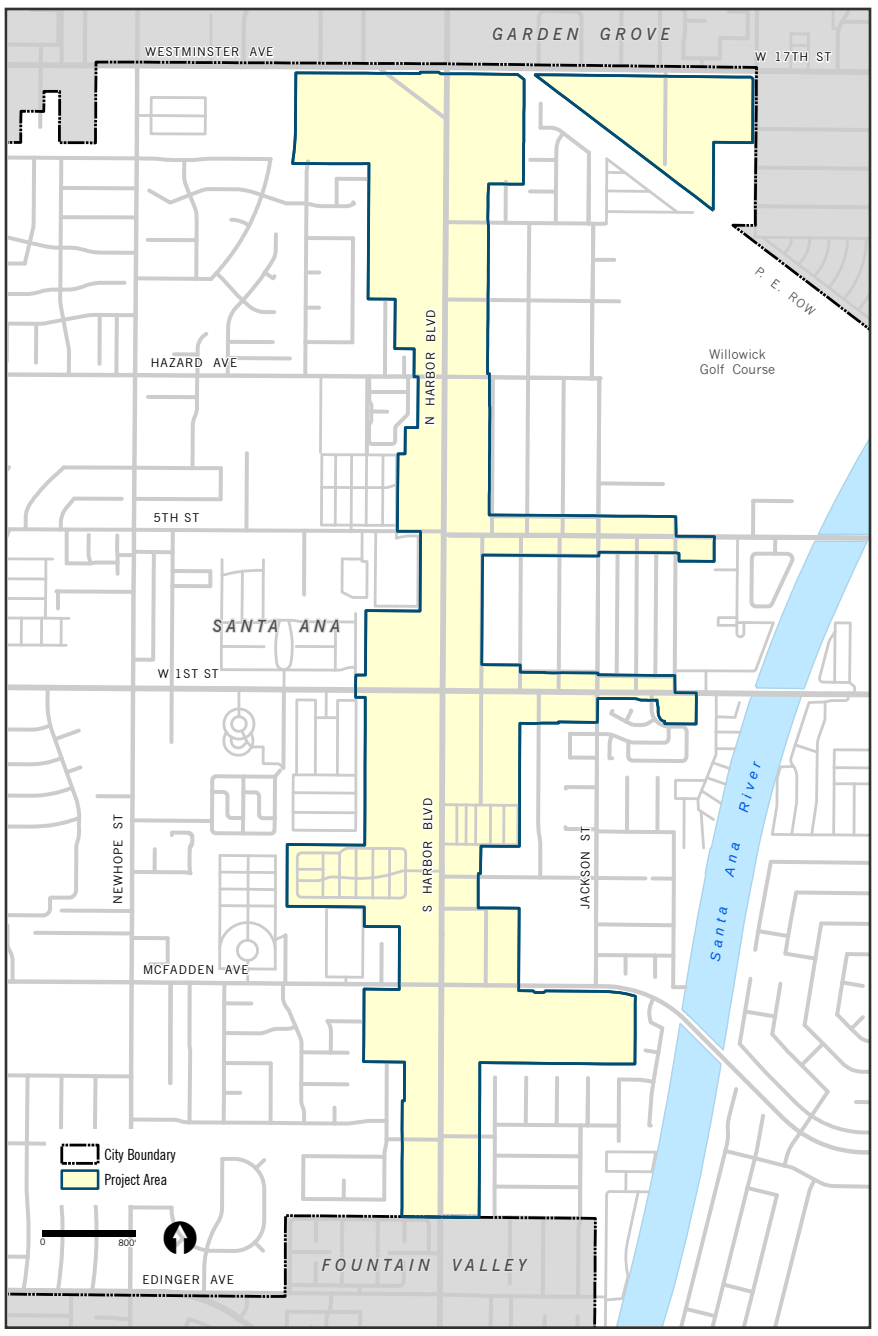



**Figure 4-2. Santa Ana Master Plan of Streets and Highways**

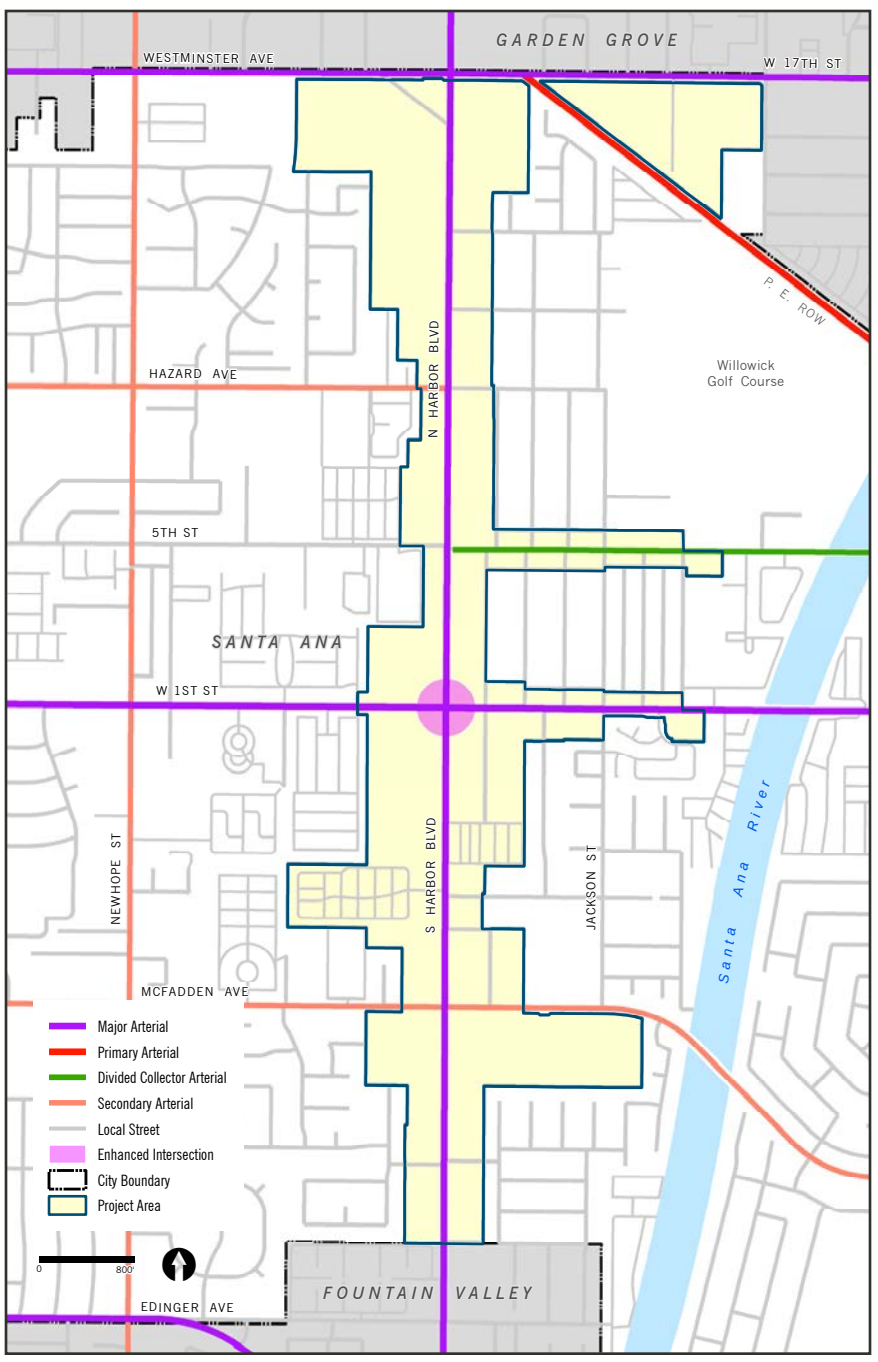


**Figure 4-3. Local Bus Service and Ridership (2011)**

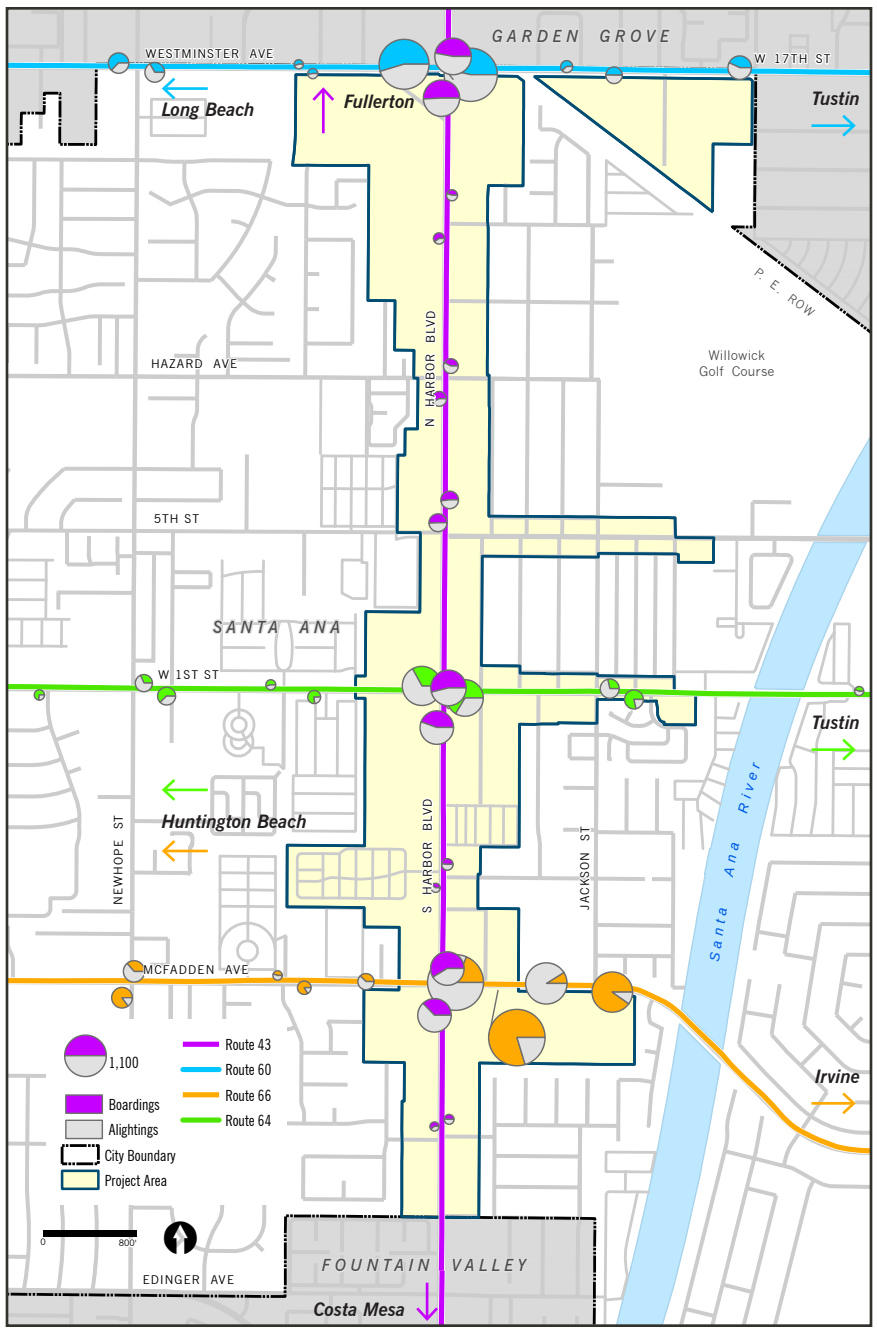



**Figure 4-4. Existing and Proposed BRT and Fixed Guideway**

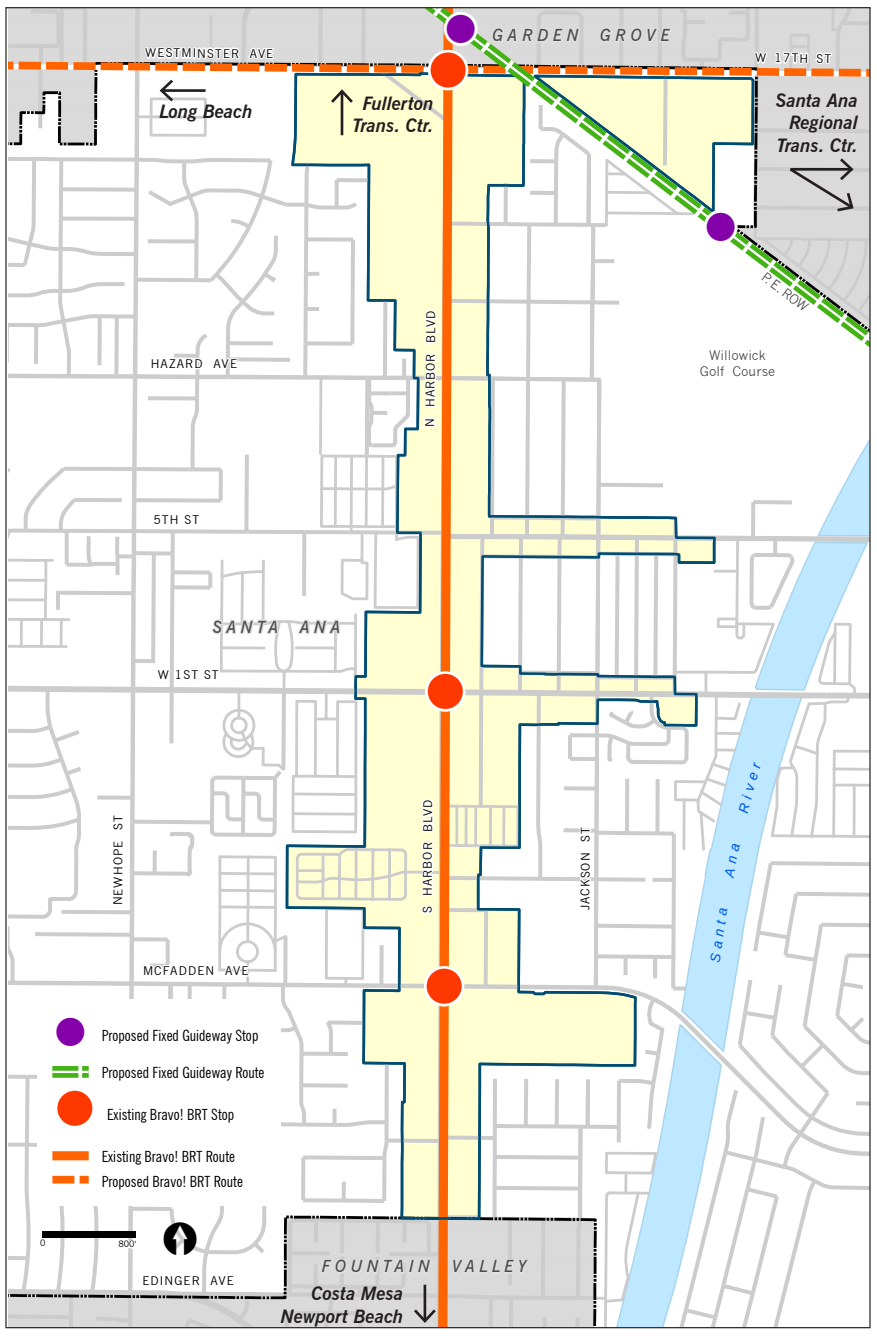



**Figure 4-5. Proposed OCTA BRT Routes**

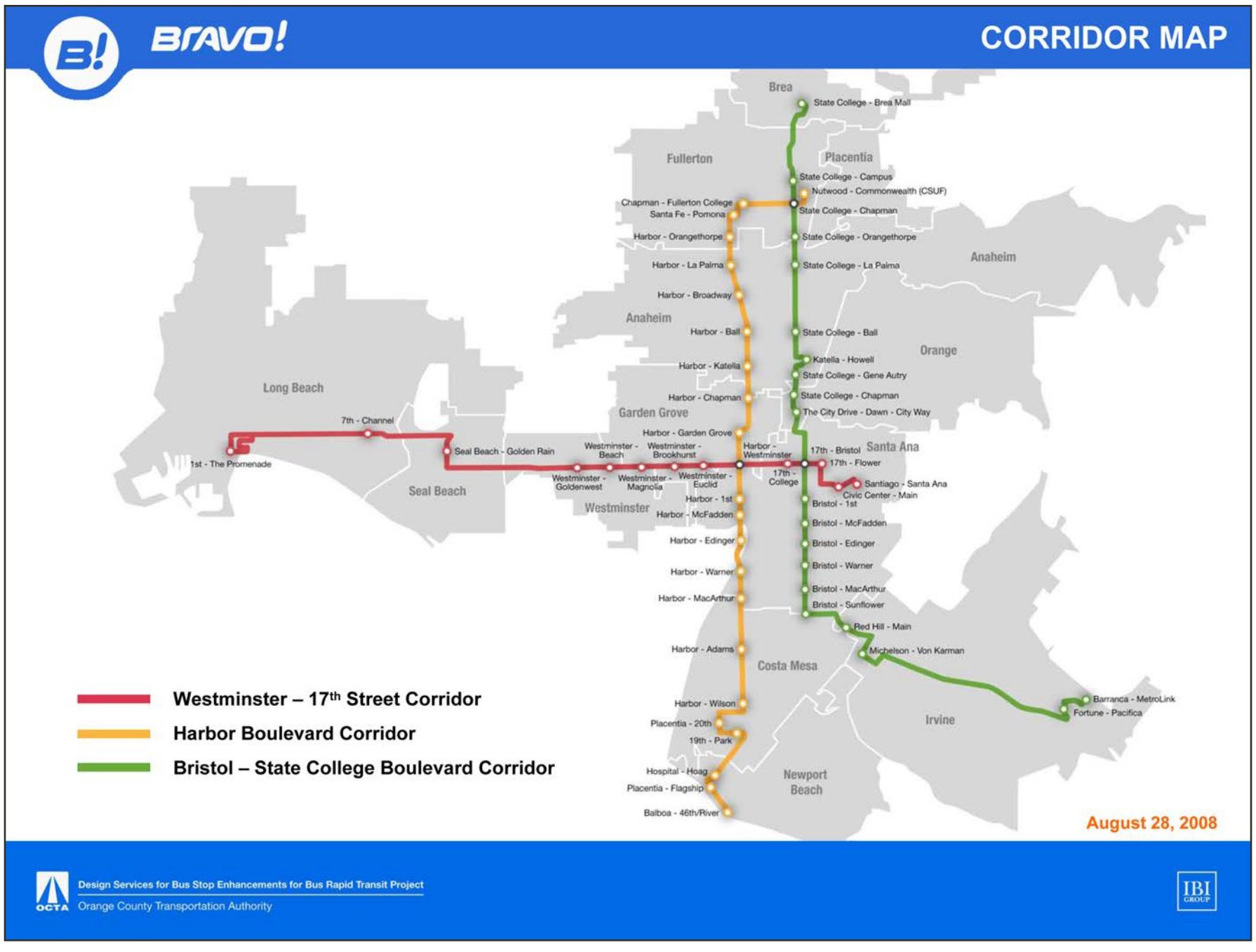


**Figure 4-6. Fixed Guideway Project Route Options**


## Fixed Guideway Project

The cities of Santa Ana and Garden Grove in cooperation with OCTA are proposing to build a fixed guideway/streetcar transportation system between SARTC and a new transportation center in Garden Grove. The system would provide transit services for commuters travelling from the train station to employment and activity centers in the heart of Orange County and for residents and visitors travelling to destinations throughout the area.

The proposed streetcar would pass directly through the northern end of the Harbor Corridor Plan along Santa Ana Boulevard and the Pacific Electric right-of-way (PEROW). Figure 4-6 depicts the latest route options under consideration. Either alignment would service Santa Ana's historic downtown, which includes government offices; federal, state and local courthouses; unique businesses; an artists' village; several colleges; and a variety of organizations that cater to the community's needs.

The proximity of the fixed guideway alignment and the Bravo! BRT stations makes property within the Harbor Corridor Plan conveniently accessible from the fixed guideway, bus lines, and local freeways. Such varied access bolsters the identity and value of property along the corridor. In the future, the transit options could enable nodes along the corridor to develop as a cultural district, museum district, or other community gathering space that could serve as a destination for residents and visitors from around the region.

## Bicycle

Even without designated bicycle facilities within the Harbor Corridor, hundreds of residents, employees, and students ride their bikes alongside cars in the roadway or alongside pedestrians on the sidewalk. Based on local feedback, improving bicycle and pedestrian safety is a key objective of the Specific Plan's mobility plan.

Accordingly, the mobility plan identifies conceptual roadway designs that implement the City's planned bikeway system, creates strong connections to local and regional bikeway networks, and encourages bike facilities that formalize safe and efficient bike travel within the corridor. Figure 4-7 illustrates existing bicycle facilities and those proposed in the City's Bicycle Master Plan and Circulation Element.

The City Engineer and Executive Director of the Planning and Building Agency will determine the appropriate timing and phasing of bicycle improvements within and around the Harbor Corridor Plan.

## Pedestrian

Harbor Boulevard is different from typical corridors throughout California in that thousands of people already walk along the corridor every day to access businesses, homes, transit stops, and public institutions. Local input and observation reveals that the current street design places a low priority on the safety and attractiveness of the pedestrian environment. The mobility plan introduces street designs that widen sidewalks, improve landscaping areas, add buffer zones, and enhance crosswalks.

Making the street more walkable will also change the way the community interacts with the street. The public realm will transform from a functional space used purely for transportation to an inviting space that elevates Harbor Corridor's image and attracts people to stroll along the corridor. Overall, improvements within the Harbor Corridor will foster community connections and actively link the homes, businesses, parks, and transit areas.

## Street Design

Many of the streets within and connecting to the Specific Plan area will be redesigned to more safely accommodate pedestrians and bicyclists while continuing to effectively serve cars and buses. As described in the Administration and Implementation chapter of this Specific Plan, the City shall prepare design and specifications for the ultimate roadway improvements, including parking and parking meters, sidewalk widening, sidewalk bulb-outs,

**Figure 4-7. Existing and Proposed Bicycle Network**

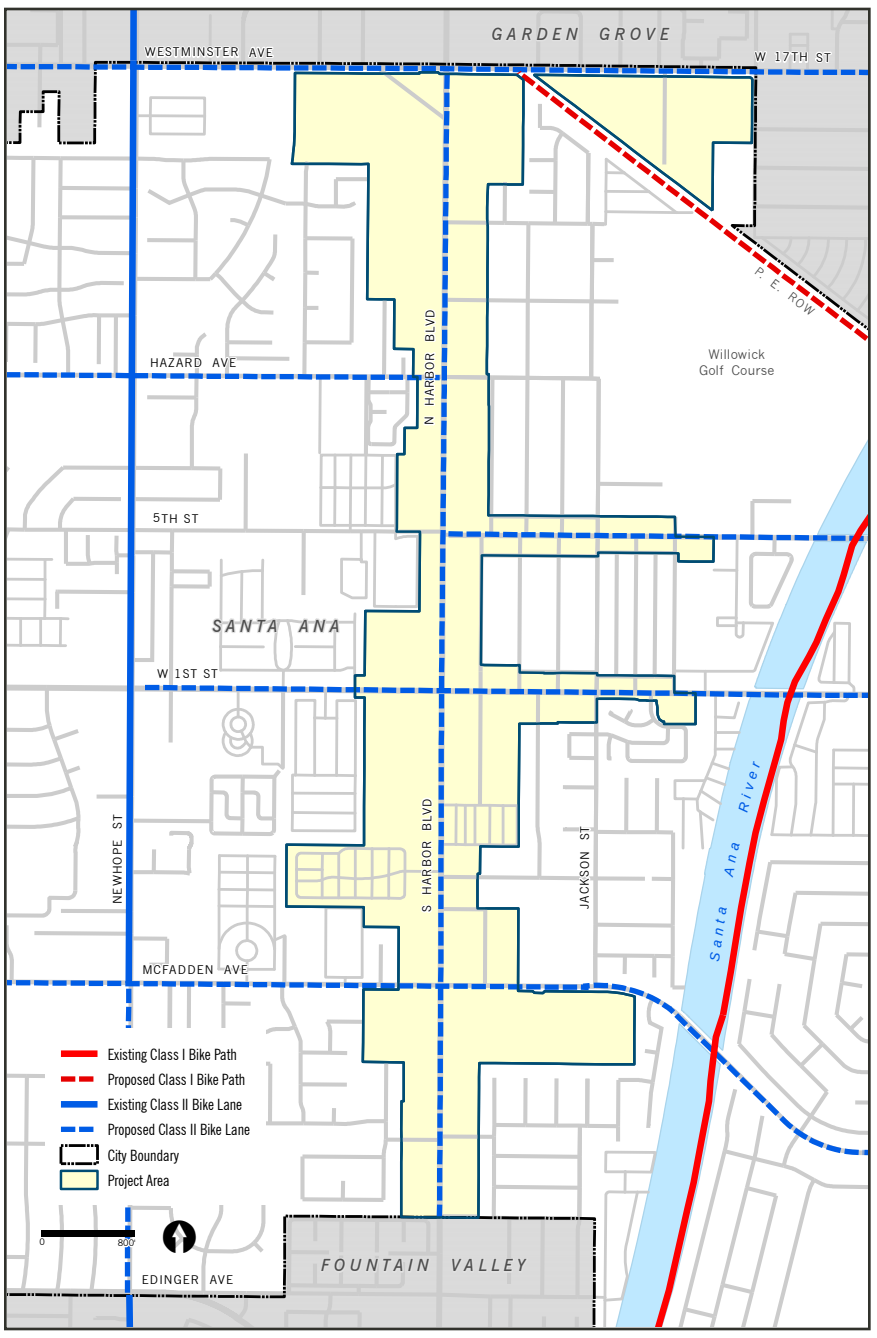




**Figure 4-8. Intersection and Roadway Safety Changes**


The current speed limit along Harbor Boulevard is 45 miles per hour—a speed that is best suited for a roadway designed primarily for vehicular traffic and low levels of pedestrian, bicycle, and transit activity.

Harbor Boulevard is identified in the City's Circulation and Housing Elements as a transit corridor and in this Specific Plan as a multimodal corridor with significant current and future levels of pedestrian, bicycle, and transit activity.

The City proposes roadway designs with a goal to reduce the speed limit along Harbor Boulevard within this Specific Plan. A lower speed limit enables the roadway to efficiently move vehicles through the corridor while improving safety for pedestrians and bicyclists. However, the posted speed limit must comply with the California Vehicle Code.

Additional street design elements are recommended to improve safety at intersections, such as bicycle-specific traffic signals alongside the traditional round red, yellow and green signals. Bicycle-specific signals help alert cars and bicyclists when it is safe and appropriate for bicycles to enter and cross the intersection. Other street design elements include textured or painted crosswalks for pedestrians and bicyclists.

median improvements, and intersection improvements including both striping and special pavement treatments.

The following text describes the intent of future street designs for significant roadways in the Specific Plan area. Illustratives (Figures 4-9 and 4-10) are also provided to convey conceptual design options that could be considered as part of the street design process.

## Harbor Boulevard

Improvements to Harbor Boulevard should include an expanded pedestrian area to encouraging walking and neighborhood activity. This area would also allow for businesses and restaurants along the corridor to offer outdoor dining and additional pedestrian and bicycle amenities such as bike racks, public art, landscaping, and benches.

New lighting features could be designed not only for the passing vehicular traffic but also at a pedestrian-scale. This would increase safety and improve the aesthetic of the public realm. Wide crosswalks could extend through the intersection designated by textured or patterned pavement.

The new street design may also introduce pull outs for on-street parallel parking, increasing safety by helping to slow traffic and acting as a buffer for pedestrians.

New bike facilities could provide a safer option for bicyclists to travel within the area while also implementing the City's planned bikeway system. As shown in the conceptual illustratives, options for the street design could incorporate off-street bike paths that create an enlarged sidewalk area suitable for both bicyclists and pedestrians; or bike lanes that travel in designated lanes along the curb or adjacent to vehicle travel lanes.

These bike facilities could be carried through an intersection in designated striped or patterned lanes—either along the roadway or on the multipurpose sidewalk. The intersections may also include a designated area in front of the limit line so that the bicyclists would be more visible to waiting vehicles.

Local bus and the BRAVO! bus rapid transit lines will operate along Harbor in the appropriate travel or turning lanes as dictated by their route. The design of the bus stop areas may continue to require buses to pull out of traffic and into designated areas along the curb, or the new street design may prefer to omit pull out areas in favor of inline bus stops.

Harbor Boulevard would maintain its existing median and six traffic lanes but may ultimately expand intersection turning options by adding an additional turning lane. An additional eight-foot public easement will be required beyond the current right-of-way to provide sufficient space for pedestrians, bicyclists, outdoor dining, and other features.

## Westminster Avenue Improvements

Improvements to Westminster Avenue within the Specific Plan could include an expansion and upgrade of the pedestrian area, the addition of more landscaping, a designated bike lane, and pedestrian-scaled lighting. These improvements would provide greater multimodal connectivity through the Specific Plan area, to other areas of Santa Ana, and neighboring jurisdictions.

## Fifth Street Improvements

Fifth Street could receive several improvements to expand the pedestrian and bicyclist experience while maintaining sufficient capacity for vehicular traffic.

**West of Harbor.** The new street design could upgrade existing sidewalks into an enhanced pedestrian and landscaping area, complemented by pedestrian-scaled lighting. Travel lanes could be reduced to accommodate new on-street parallel parking and provide a buffer to the pedestrian zone.

**East of Harbor.** The new street design could replace on-street parking and reduce the width of travel lanes to make way for bike lanes. With the new bike lanes, people would gain more direct and safer access to the Santa Ana River Trail, Harbor Boulevard, and other areas and trails in Santa Ana. The existing sidewalk may also be upgraded with pedestrian-scaled lighting and landscaping to improve the walking experience.

## First Street Improvements

The new street design for First Street could introduce a bike lane, new landscaping and pedestrian areas, and pedestrian-scaled lighting to enhance the pedestrian experience and provide direct and safe bicycle connections to the nearby Bravo! BRT stop as well as the Santa Ana River Trail. The existing painted median may also be upgraded to a raised landscaped median.

## McFadden Avenue

Within the Specific Plan boundaries McFadden Avenue could maintain the majority of its existing street design. Sidewalks may be upgraded and a landscaping area could be added as a buffer to traffic. This street would provide an important connection to a Bravo! BRT stop on Harbor Boulevard.

**Figure 4-9. Conceptual Rendering: Harbor Boulevard at Westminster Avenue Looking South**


Conceptual design features:

a. Enhanced and enlarged pedestrian area
b. Bike lane pulled up to the crosswalk in front of the limit line
c. Limit line set back 10 feet as a buffer from bicycles and pedestrians
d. Textured pedestrian crosswalk
e. Striped or patterned bike lane carried through the intersection

**Figure 4-10. Conceptual Renderings: Harbor Boulevard Looking North**


Conceptual design features:

a. Enlarged sidewalk area with street trees
b. Space for outdoor dining
c. Pull out area for bus stop
d. Buffered bike lane alongside vehicle travel lanes
e. On-street parallel parking with smart parking meters
f. Separated bike lane alongside vehicle travel lanes
g. Protected bike lane adjacent to the curb

## Figure 4-10. Conceptual Renderings: Harbor Boulevard Looking North


Conceptual design features:

a. Class I bike path and sidewalk area that supports both pedestrians and bicyclists; enhanced by street trees
b. Cycle track
c. Space for outdoor dining
d. Pull out area for bus stop
e. Inline bus stop (no pull out)