

EXISTING CONDITIONS

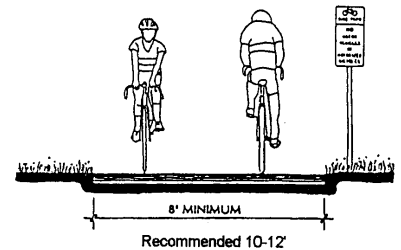
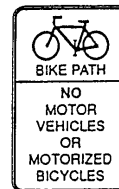
Bicycle Facilities and Programs

1. Bikeways

Bikeways can be classified into four types in accordance with Chapter 1000 of the Caltrans Highway Design Manual:

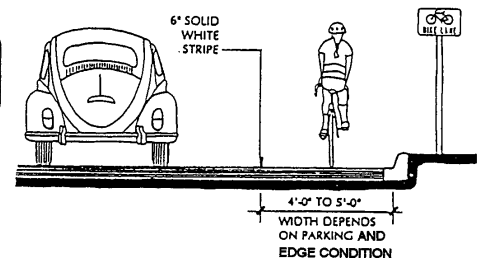
- Class I Bike Path - Typically called a bike path, this provides for bicycle travel on a paved right-of-way completely separated from any street or highway.

Class I Bike Path



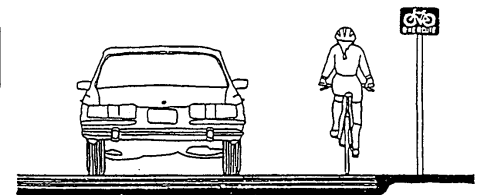
- Class II Bike Lane - These facilities are often referred to as bike lanes. Bike lanes provide a striped and stenciled lane for one-way travel on a street or highway. When properly designed, bike lanes help improve the visibility of bicyclists.

Class II Bike Lane



- Class III Bike Route - Generally referred to as a bike route, it provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing. This is recommended when there is enough right-of-way for bicyclists and motorists to safely pass.

Class III Bike Route



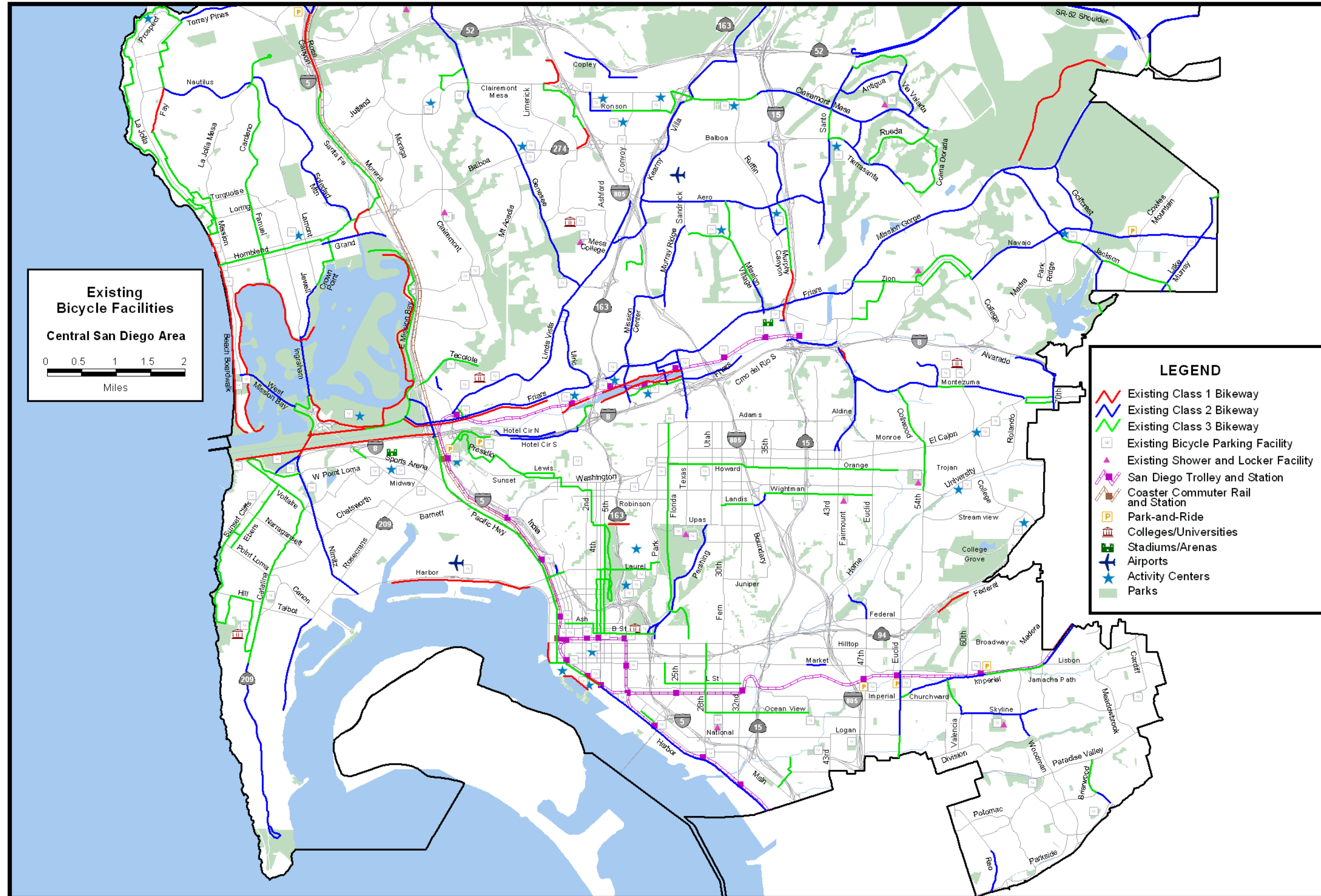
- Shared Roadway (No Bikeway Designation). Most bicycle travel in the State now occurs on streets and highways without bikeway designations. This probably will be true in the future as well. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, routes may be unsuitable for bicycle travel, and it would be inappropriate to encourage additional bicycle travel by designating the routes as bikeways. Finally, routes may not be along high bicycle demand corridors, and it would be inappropriate to designate bikeways regardless of roadway conditions (e.g., on minor residential streets).

Existing Bikeways

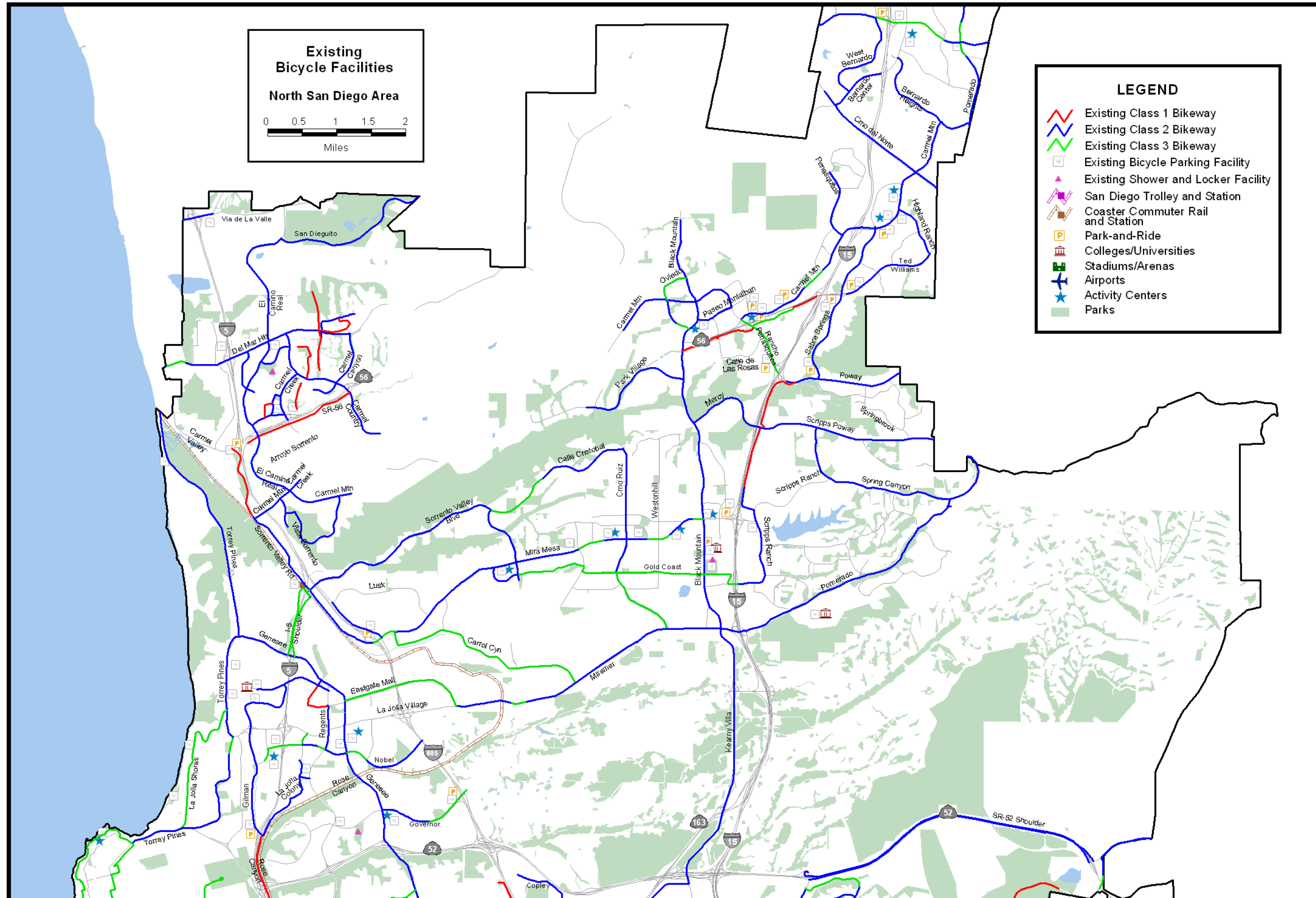
The City of San Diego has a developed network of designated Class I, II, and III bikeways. The maps on pages 33-37 show the existing network of designated bikeways within the City. Many Class I paths are located in Mission Valley, Mission Bay Park, and along the beachfronts in Pacific Beach and Mission Beach. Other Class I facilities of significant length can be found in Carmel Valley, Rancho Penasquitos, Mira Mesa, Rose Canyon, near the San Diego Airport, and in the Mission Trails Park. In San Diego, many Class I bikeways provide critical links between communities that would otherwise be totally separated for bicyclists. Two examples of these critical links are the Rose Canyon and Murphy Canyon paths, which provide for convenient bicycle travel in areas with no other alternative route adjacent to busy freeways.

Most of the Class II bike lane facilities are located in areas of the City developed within the last 30 years and include Rancho Bernardo, Rancho Penasquitos, Sabre Springs, Mira Mesa, University City, Carmel Valley, and Tierrasanta. Some important Class II bikeways of significant length include Genesee Avenue, Linda Vista, Kearny Villa, and Black Mountain Roads, Aero and Harbor Drives, Friars and Mission Gorge Roads, Nimitz and Beyer Boulevards, and Carmel Mountain, Torrey Pines, and Otay Mesa Roads.

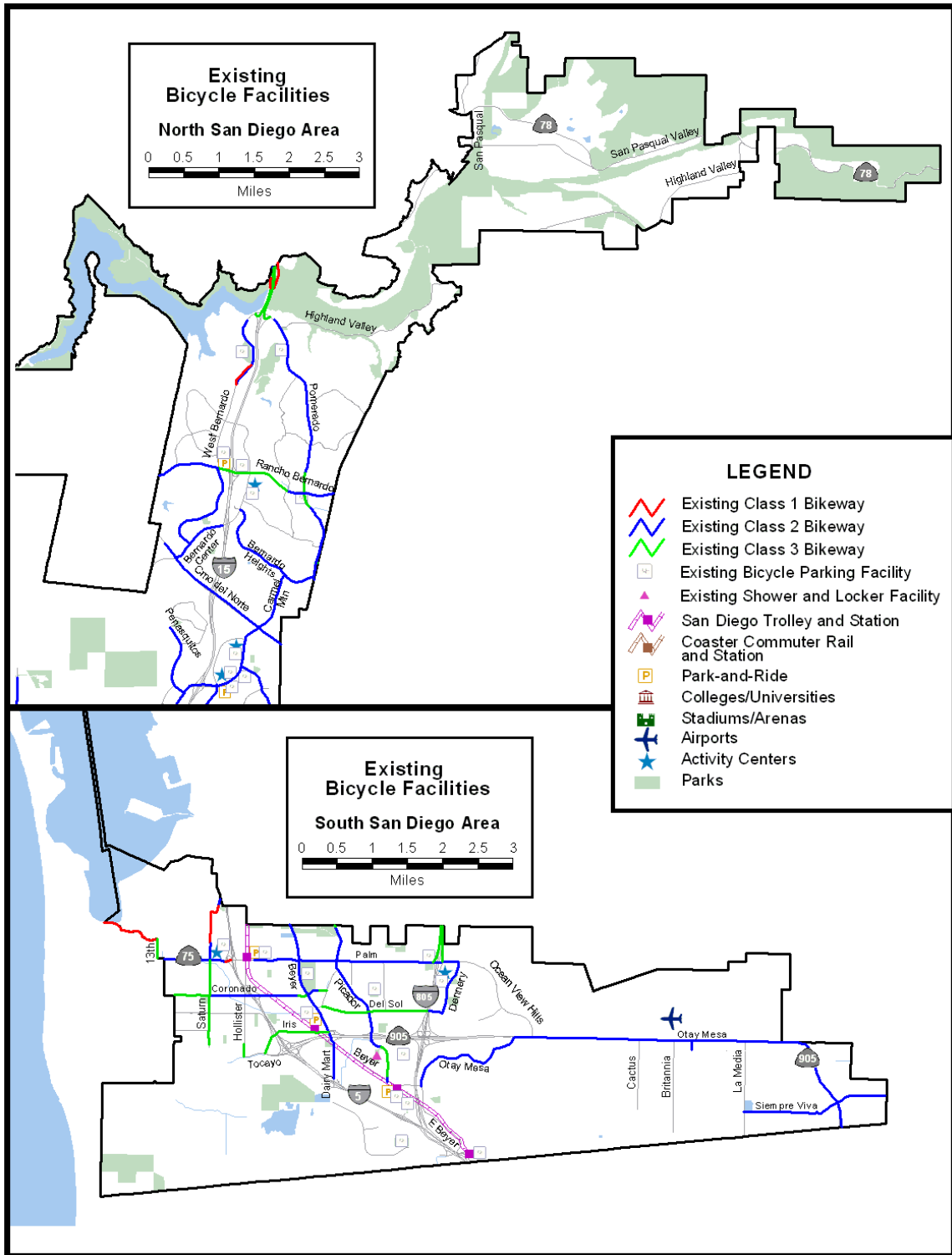
Class III bikeways are located both along major arterials and along quiet neighborhood streets. Arterial Class III facilities are located along such streets as Miramar Road, Rancho Penasquitos Boulevard, Pacific Highway, 4th, 5th, and 6th Avenues, Camino Ruiz, and Saturn and Del Sol Boulevards. Neighborhood Class III routes are located along streets such as Orange Avenue in City Heights, Gold Coast Drive in Mira Mesa, Fort Stockton Drive in Mission Hills, Hornblend Avenue in Pacific Beach, L Street near Golden Hill, and Iris Avenue in Otay Mesa-Nestor.



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There are four segments of the freeway system within the City that are open for travel by bicyclists. These freeway bikeway links are in areas where there is no viable alternative for bicycle travel. The following segments of the freeway system are open for travel by bicyclists within the City of San Diego:

- I-5 between Sorrento Valley Road and Genesee Avenue
- I-15 between Via Rancho Parkway and West Bernardo Drive/Pomerado Road
- SR-52 between Santo Road and Mast Boulevard
- I-805 between Palm Avenue and Otay Valley Road

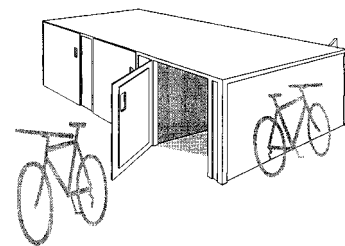
In these areas, bicyclists are permitted to ride the shoulder of the freeways. In some cases, the shoulders have signage and destination signs, and in other cases, there is no signage informing bicyclists as to the availability of the freeway route.

There are several bikeway projects that are currently in various stages of development. These are listed below.

- Ocean Beach-Mission Valley Class I extension to Hotel Circle Place
- Mission Valley San Diego River Class I from Qualcomm Way to Qualcomm Stadium
- Class I along the San Diego River from Qualcomm Stadium to Zion Avenue
- Class I along the San Diego River from Zion Avenue to Princess View Drive
- Class I Bayshore Bikeway in Otay Mesa-Nestor
- Coastal Rail Trail from Downtown San Diego to Del Mar
- Class I connection between Tierrasanta Boulevard to Princess View Drive
- Class I Lake Hodges crossing
- Class I along the SR-56 Freeway alignment
- Rose Creek Bridge in Mission Bay Park
- SR-15 Bike Path in Kensington-Talmadge

2. Parking

Bicycle parking accommodation is an important component in planning bicycle facilities and encouraging widespread use. Bicycles are one of the top stolen items in all communities, with components being stolen even when a bicycle is securely locked. Because today's bicycles often cost between \$350 to over \$2,000, many people won't use a bicycle unless they have secure parking available.



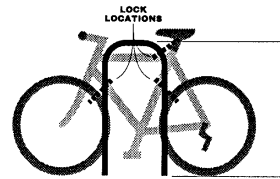
Bicycle parking requirements specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable regulations will be imposed upon all new development projects.

In California, parking facilities are classified as follows:

- Class I bicycle parking facilities -- accommodate employees, students, residents, commuters, and others expected to park more than two hours. This parking is to be provided in a secure, weather-protected manner and location. Class I bicycle parking will be either a bicycle locker or a secure area like a 'bike corral' that may be accessed

only by bicyclists. The new “day locker” locker (bike lid, eLocker, etc.) is a new bicycle locker concept that has also gained popularity recently. These type of lockers allow for multiple users in the same day, therefore allowing these “lockers” to function similar to racks.

- Class II bicycle parking facilities -- best used to accommodate visitors, customers, messengers, and others expected to depart within two hours. Bicycle racks provide support for the bicycle but do not have locking mechanisms. Racks are relatively low-cost devices that typically hold between two and eight bicycles, allow bicyclists to securely lock their frames and wheels, are secured to the ground, and are located in highly visible areas. It is recommended that racks not be of a design that may damage the wheels by causing them to bend. Bike racks should be located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers, or anywhere someone’s personal or professional business takes place.



Existing

The City of San Diego has an abundance of bicycle parking facilities located in all communities. The maps on pages 33-37 show existing parking locations in the City. Bicycle parking accommodations are provided at the following locations:

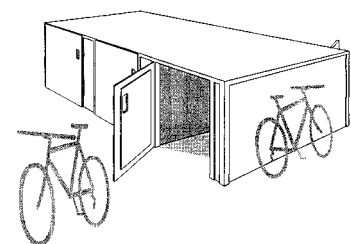
- Municipal and state parks
- Municipal and state beaches
- Colleges and universities
- Museums and facilities at Balboa Park
- Municipal libraries
- Shopping centers
- Regional shopping malls
- Government offices and buildings
- Retail and tourist locations in the downtown business and shopping district
- Qualcomm Stadium

The City of San Diego has an existing bicycle parking ordinance that requires bicycle parking to be provided for various types of new development in the City. Bicycle parking requirements specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable regulations will be imposed upon all new development projects. The existing facilities map shows existing parking locations.

3. Amenities

Existing

In addition to parking accommodations, some local employers, health clubs, colleges, and universities provide shower and clothing locker facilities that may be used by bicyclists at the end of their trips to work or school. These amenities make bicycle commuting a viable option for many bicyclists and contribute to the viability of bicycling as a realistic commute option. The City of San Diego also maintains



13 public pools that include shower and locker facilities that are available to the public. These may be found on the maps on pages 33-37 and include the following locations:

- Allied Gardens
- Bud Kearns Memorial (Morley Field)
- Carmel Valley
- City Heights
- Clairemont
- Colina del Sol (East San Diego)
- Kearny Mesa
- Martin Luther King, Jr. (Southeast San Diego)
- Memorial
- Ned Baumer Miramar College
- Swanson Memorial (University City)
- Tierrasanta
- Vista Terrace (San Ysidro)

4. Multi-Modal Connections

Improving the bicycle-transit link is an important part of making bicycling a part of daily life in San Diego. Linking bicycles with mass transit (bus, trolley, commuter rail, and ferry) overcomes such barriers as lengthy trips, personal security concerns, and riding at night, in poor weather, or up hills. Park-and-ride locations provide for intermodal travel by bicyclists to carpools and vanpools. Bicycle parking facilities should be placed at these locations and would facilitate links to ride-sharing activities. Additionally, bicycling to transit instead of driving benefits communities by reducing taxpayer costs, air pollution, demand for park-and-ride land, energy consumption, and traffic congestion with relatively low investment costs.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit
- Offering bicycle parking at transit locations
- Improving bikeways to transit
- Encouraging usage of bicycle and transit programs

Existing

Currently, all San Diego Transit buses are equipped with state-of-the-art bicycle racks located on the front of each bus. Up to two bicycles per car may be brought on board the San Diego Trolley. Capacity restraints are a primary issue regarding the San Diego Trolley, especially during peak periods of the day. The maps on pages 33-37 show the locations of transit stations in the City. Except for the Santa Fe Depot Station, all existing Coaster, and Trolley stations currently have bicycle parking facilities available. These include the following locations:

Coaster

- Old Town
- Sorrento Valley

Trolley

- Mission San Diego
- Qualcomm Stadium
- Fenton Parkway
- Rio Vista
- Mission Valley Center
- Hazard Center
- Fashion Valley
- Morena/Linda Vista
- Old Town
- Washington Street
- Middletown/Palm
- County Center/Little Italy
- Gaslamp Quarter
- Convention Center
- Seaport Village
- American Plaza
- Civic Center
- 5th and C Street
- City College
- 12th and Market
- 12th and Imperial
- 25th and Commercial
- 32nd and Commercial
- 47th Street
- Euclid Avenue
- Encanto/62nd Street
- Barrio Logan
- Harborside
- Palm Avenue
- Iris Avenue
- Beyer Boulevard
- San Ysidro

Numerous park-and-ride locations in the City offer intermodal connections for bicyclists to carpools and vanpools. Most of these locations are near freeways for those making longer distance trips, and several are located near the northern terminus of the I-15 Carpool/Fastrak lanes in order to facilitate use of the express lanes for carpooling commuters. Bicycle park-and-ride facilities are found at the following locations:

- Mira Mesa Blvd at I-15
- Black Mountain Rd at Miramar College
- Vista Sorrento Pkwy
- Taylor St
- Governor Dr at I-805
- Carmel Valley Rd at Sorrento Valley Rd
- 47th Street at Castana St
- 62nd Street at Akins Ave
- Palm Ave at Hollister Ave
- 30th Street at Iris Ave
- Market St at Euclid Ave
- Seaward Ave
- Carmel Mountain Rd at Freeport Rd
- Sabre Springs Pkwy at Poway Rd
- Sabre Springs Pkwy at Ted Williams Pkwy
- Carmel Mountain Rd at Rancho Carmel Dr
- Rancho Carmel Rd near Provencal Pl
- Gilman Dr at I-5
- Navajo Rd at Cowles Mountain Blvd
- Carmel Mountain Rd at Paseo Cardiel
- Carmel Mountain Rd at Stoney Creek Rd
- Rancho Bernardo Rd at I-15
- Rancho Penasquitos Blvd at I-15

The Coronado Ferry currently allows bicycles on board for the trip from downtown San Diego to Coronado Island for an additional 50 cents over the normal fare. The Ferry starts running from San Diego at 9 am and operates hourly until 9 pm on weekdays, and 10 pm on weekends. It's first trip into San Diego in the morning starts at 9:30 am. It runs hourly from then until 9:30 pm on weekdays, and 10:30 pm on weekends. The City of Coronado also funds additional commuter service during peak hours. Hourly service begins at 5:45 am in the morning and ends at 6:55 in the evening for commuting cyclists.

Constraints and Opportunities

With its many ridges, mesas, and canyons, San Diego's topography presents both constraints and opportunities for bicyclists in the City. The many hilly areas of the City can be a hindrance to many commuting and recreational cyclists, and the narrow canyons can create chokepoints where automobile traffic becomes concentrated, such as at the I-5/I-805 merge or in the I-15

corridor north of Mira Mesa. Many of these chokepoints have bikeway alternatives, such as the Rose Canyon path parallel to I-5, and bicycles have been permitted use of the freeway shoulders in some areas, such as along I-5 between Sorrento Valley Road and Genesee Avenue.

The freeways themselves can present obstacles to a direct travel path for bicyclists. Many arterial streets are not continuous through an area where the freeway has been designated the primary automobile route. Examples include Murphy Canyon along I-15 between Aero Drive and Friars Road, along SR-94 east of Kelton Avenue, and near the interchange of SR-94 and Home Avenue. In Murphy Canyon and along SR-94 near Kelton, Class I paths have been built to connect a vital accessible bicycle link, but near SR-94 and Home Avenue, no such link exists to provide a through connection from Home Avenue to points west.

Class I bikeways have been built along many sections of the freeway system to provide critical bicycle links where the freeway has been designated the primary automobile route. These include I-15 between Mira Mesa and Sabre Springs, and adjacent to the western and eastern portions of the yet-unfinished SR-56 Freeway. One project, which is in design at the present time, will provide a critical link adjacent to SR-15 between Mission Valley and the Normal Heights and City Heights areas.

The City's canyons provide opportunities for Class I bikeway facilities in many locations. Many canyon corridors can provide for long stretches of bikeway uninterrupted by busy arterial streets. Such opportunities for canyon corridor bikeways include San Clemente Canyon, Rose Canyon east of Gilman Drive, Tecolote Canyon, Chollas Canyon, and other small canyons that could provide intra-neighborhood linkages in older parts of the City.

The City's bikeway system reveals that many areas of the City have numerous designated bikeway facilities and others that have very few. Generally, older sections of the City have less bikeway infrastructure than newer areas. Nonetheless, bicyclists may travel on any roadway without a designated bikeway except those sections of freeways where they are prohibited. Some areas of the City that appear to be lacking designated bikeway facilities include Southeast San Diego, Paradise Hills, City Heights, the College Area, North Park, Kensington/Normal Heights, Hillcrest, Midway, Kearny Mesa, and Clairemont. One of the reasons why some of these older areas of the City have fewer bikeways is due to the narrowness of the curb-to-curb street widths that do not allow for the inclusion of bike lanes or provide adequate room for bicycles in a wide curb lane. Most of the streets in these areas also have curbside parking permitted, which can be an obstacle to the implementation of bikeways on these streets.

Most areas of the City could benefit from an increase in bikeway mileage, and there are numerous gaps in the existing system. Many bikeways are discontinuous, and others have discontinuous links along a route that is otherwise a bikeway corridor, such as along Friars Road near SR-163. Although San Diego has a lot of bikeway mileage, more is needed in underserved areas and where there are obvious gaps in the network.

Relevant Legislation and Policies

Aside from the City's own General Plan which identifies specific goals and policies that are relevant to the bicycle master plan, there are several other city, state, regional, and federal requirements for master plans which are primarily related to funding.

The San Diego Bicycle Master Plan will be consistent with the San Diego Association of Government's Regional Transportation Plan, which outlines future transportation improvements that are eligible for federal funding in San Diego County.

On a state level, according to the California Bicycle Transportation Act (1994), all cities and counties should have an adopted bicycle master plan in order to qualify to apply for the Bicycle Transportation Account funding source. A bicycle master plan must contain the following elements:

- An estimated number of existing and future bicycle commuters
- Description and maps of existing and proposed land uses
- Description and maps of the existing and proposed bikeway system
- Description and maps of existing and proposed bicycle parking facilities
- Description and maps of existing and proposed multi-modal connections
- Description and maps of existing and proposed facilities for changing and storing clothes and equipment
- Bicycle safety and education programs
- Citizen and community participation
- Consistency with transportation, air quality, and energy plans
- Project descriptions and priority listings
- Past expenditures and future financial needs

In addition to these required elements, the Caltrans Highway Design Manual contains specific design guidelines, which must be adhered to in California. ‘Chapter 1000: Bikeway Planning and Design’ of the Manual sets the basic design parameters of on-street and off-street bicycle facilities, including mandatory design requirements.

Bicycle Accident and Safety Education Program Analysis

Bicycle Accidents

**Table 4.1
Bicycle Involved Collisions: 1997-1999**

Jurisdiction	1997 Collisions (SWITRS 1997)		1998 Collisions (SWITRS 1998)		1999 Collisions (SWITRS 1999)		Total Injury Collisions	Average Injury Collisions per Year	2000 Population (US Census)	Collisions per 1000 people per year	Index (relative to state avg. of 0.37/1000)
	Fatality	Injury	Fatality	Injury	Fatality	Injury					
San Diego	1	528	2	451	2	474	1458	486	1223400	0.40	1.07

The table above shows the number and rate of accidents involving bicyclists in San Diego for the three most recent years: 1997, 1998, and 1999. This information was gathered from the California Highway Patrol’s SWITRS website, which provides accident information by jurisdiction. As the above table shows, San Diego had a slightly higher bicycle accident rate than the state average. Overall, accident rates seemed to be relatively constant over the three-year period for San Diego, with a possible reduction trend emerging. While there was a significant reduction in the number of collisions from 1997 to 1998, there was a small increase again from 1998 to 1999, indicating that no real trend can be asserted.

Bicycle Safety Education Program

For the last half of 1999 and 2000, Safe Moves has been contracted by the City of San Diego to conduct bicycle and pedestrian safety education in public schools. The 18-month program was carried out in elementary schools. It is designed to create positive attitudes towards cycling while teaching personal traffic safety. The program consisted of workshops, rodeos and a helmet program.

Altogether, the safety education program reached kids through 1,000 classroom workshops at elementary, middle and high schools. The bicycle portion of the course taught:

- Helmet use
- Choosing the right bike
- Proper bicycling clothing
- Recognition and avoidance of common bicycle collisions
- Bicycle maintenance and repair
- Rules, regulations and ordinances that govern bicyclists
- Bicycle registration
- Using safe bike routes to and from school
- Consequences of unsafe bicycle use

Safe Moves also conducted 50 bicycle rodeos at elementary, middle and high schools designed to develop the following bicycle handling skills:

- Proper braking techniques for hills, wet pavement, sand, rain gutters, debris, car doors
- Proper mounting and dismounting techniques
- Left and right hand turns
- Left hand shoulder check
- Proper turning techniques and avoiding hazards

The third component of the San Diego safety education program consisted of a helmet program. Approximately 3,000 helmets were given away to school-aged children.

Last, Safe Moves conducted 24 traffic safety rodeos in high-volume traffic neighborhoods. The target audience for these rodeos was families with school-aged children and neighborhood residents who drive in the area.

Bicycle safety education also includes such initiatives as public service announcements on television, radio, and on billboards. Brochures and presentations by staff to various organizations are also made in order to add to the level of information and education that can be broadcast to motorists as well as bicyclists in the City.

Police Department Enforcement

The San Diego Police Department enforces all traffic laws, for bicycles and motor vehicles as part of their regular duties. They ticket violators as they see them. This includes bicyclists who break traffic laws, as well as motorists who disobey traffic laws and make the cycling environment less safe. The level of enforcement depends on the availability of officers. The Police Department also responds to particular needs and problems as they arise. The Police Department is also involved in the review of the Bicycle Master Plan.

The Police Department also dispatches a fleet of 49 bicycle-mounted officers. These officers have had special training in bicycle safety and assist in enforcing traffic laws. They are especially qualified to enforce laws as they pertain to bicycles.

It is inconclusive to determine whether San Diego's bicycle safety education program and police enforcement have had any effect on the number of bicyclists involved in accidents based on the data obtained. The primary safety program, safety education, was only in place the last six months of the accident reporting period. The accident rate was slightly higher than the state average. San Diego has ideal bicycling weather as well as a significant tourist population during many parts of the year. These two factors combined could explain the higher number of accidents in that city as compared to the state average, although many other factors may account for the difference.

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