

4. Transportation

4.1 STREET AND FREEWAY NEEDS

Streets and freeways comprise the framework of our transportation system and play a major role in shaping the form of and quality of life within the community. When the street system is plagued by congestion and collisions it can have a major impact on the community. The roadways and intersections that suffer from poor level of service and high frequency of accidents are shown in Figure 4-1.

Freeways

The five freeways that serve Mission Valley are I-5, I-8, I-15, I-805, and SR 163. These freeways are utilized by residents and employees of Mission Valley as well as significant pass-through regional trips. As shown in Figure 4-1, a large portion of the freeway segments within Mission Valley operate at poor level of service during the peak commute periods along one or both directions.

Arterials

Although Mission Valley is readily accessible by freeway, travel to specific points within the community by means of the surface street system can be difficult during the peak hours. In the morning and noon peak hours, congestion occurs on the freeways as workers living in other communities travel to jobs in Mission Valley, while in the evening the surface street system backs up. The evening congestion is due to Mission Valley commuters accessing the freeways, plus motorists coming into the Planning Area to frequent the restaurants, bars, shops and theaters after work.

These high vehicular traffic volumes result in a number of roadway segments operating at poor level of service (LOS). In particular, north-south links such as Morena Boulevard, Bachman Place, and Texas Street experience LOS D conditions or below. Many east-west links, such as portions of Friars Road, Camino De La Reina, Hotel Circle North and South, as well as Camino Del Rio North and South all experience LOS D conditions or below.



Maintenance Assesment Districts (MADs) are mechanisms to finance special benefit services, such as street lighting and crosswalk paving. Streets within Civita are built to modern roadway standards through MAD funding.

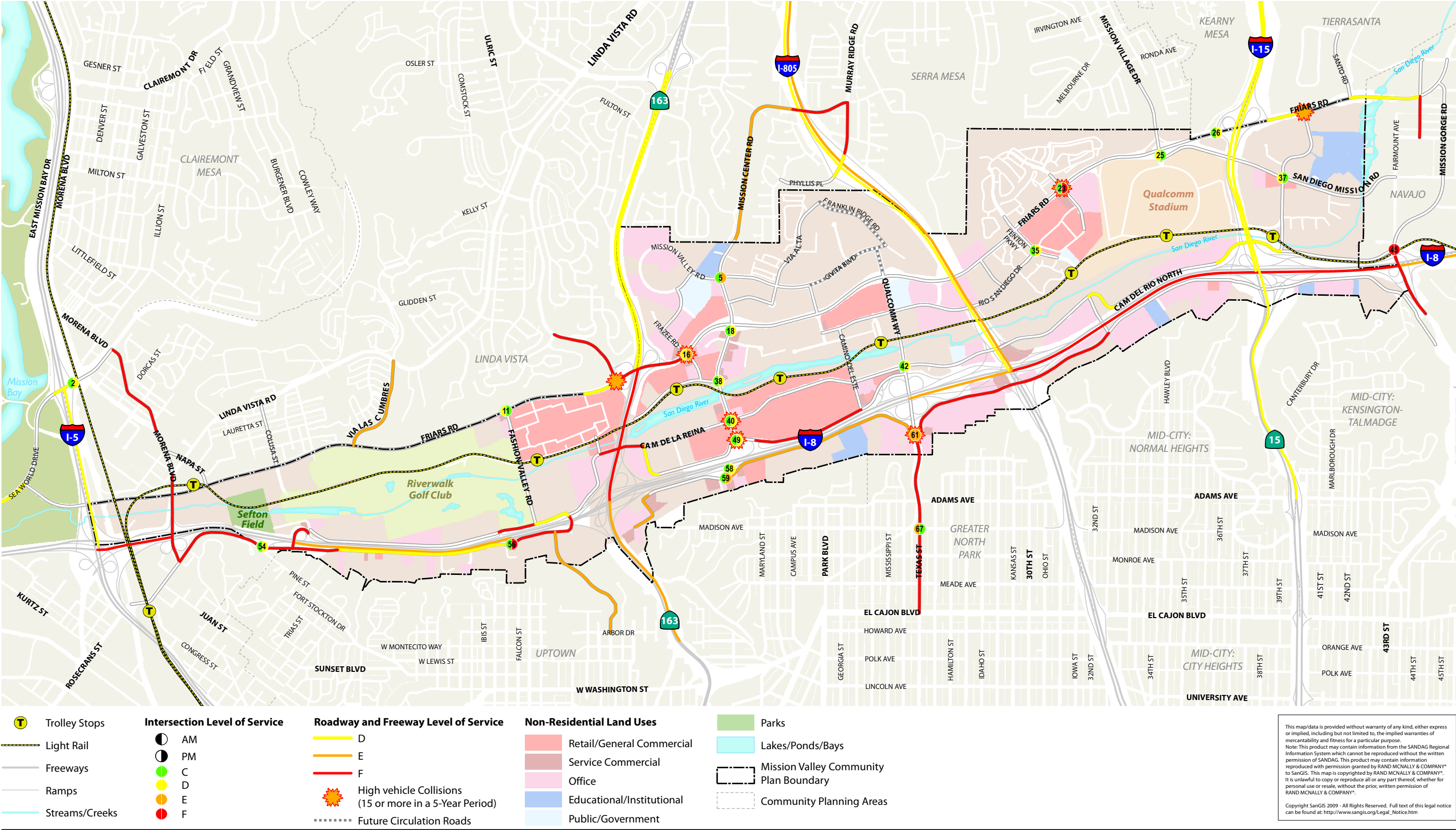


Intersection of Friars Road and Frazee Rd which frequently experiences congestion.

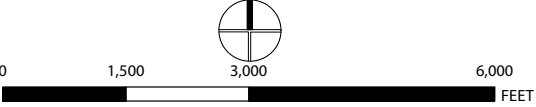


View over Interstate 8.

Figure 4-1: Street and Freeway Needs



Data Source: City of San Diego, 2015; Chen Ryan Associates, 2015; SANGIS Regional GIS Data Warehouse, 2015. (www.sangis.org) Dyett & Bhatia, 2015



Intersections

Almost a third of the study area intersections in Mission Valley (21 out of 67) are currently operating at LOS D or worse during the peak commute hours. Mission Center Road has some of the worst intersection congestion during the evening peak hour, with a majority of the intersections experiencing a poor level of service (LOS D or worse). Three intersections that experience the worst congestion (LOS F) during one or more peak periods include:

- Hotel Circle South at the I-8 eastbound ramps
- Friars Road at Northside Drive
- Mission Gorge Road at Camino Del Rio North (outside of the Mission Valley community boundaries)

Safety

In addition to high levels of congestion, several intersections in Mission Valley have a high number of vehicle collisions, defined as 15 or more collisions during a five-year period. These include:

- Four intersections along Friars Road at Ulric Street, Frazee Road, Northside Drive, and Rancho Mission Road
- Two intersections along Mission Center Road at Camino De La Reina Camino Del Rio North
- One intersection along Camino Del Rio South at Qualcomm Way/Texas Street

4.2 TRANSIT NEEDS

The City of Villages strategy supports expansion of the transit system by calling for villages, employment centers, and other higher-intensity uses to be located in areas that can be served by high quality transit services. This will allow more people to live and work within walking distance of transit.

Mission Valley is relatively well-served by transit, with most of the community within a quarter mile of a transit stop. The highest public transit ridership levels in the Mission Valley community are along the San Diego Trolley Green Line, as well as to and from the Fashion Valley Transit Center. Future transit needs in Mission Valley primarily stem from access limitations due to transit network gaps or poor services in terms of on-time performance, safety issues near transit stations, and connectivity issues. These transit needs are illustrated in Figure 4-2.

Community Circulators

Some developments within Mission Valley have implemented, or are planning to implement, a community circulator. Examples include the Centerside office complex, which offers lunchtime shuttle services for employees, as well as the Civita residential development, which plans to implement a circulator to connect residents to transit and major community attractions. These circulators are often implemented through conditions established during a development's approval process. While not accessible to all members of the general public, these circulators will facilitate mobility for eligible travelers. Community circulator systems are currently privately financed and operated. Future large developments within the community are likely to continue the trend of implementing community circulators as a traffic-mitigating community amenity.

Access Limitations

Poor service quality and network gaps are present among many of the bus routes that serve the core of Mission Valley. In particular, poor on-time performance along bus routes that serve destinations to the north and south of the Fashion Valley Transit Center limits the convenience and reliability of public transit. Bus routes 6, 25, 41, 105, and 928 suffer with on-time performance that is significantly below the goals set by the San Diego Metropolitan Transit System (MTS). These buses are frequently stuck in the same congestion as private vehicles, which means that transit priority measures may be desired along some roadway segments. In addition, a network gap exists near the Interstate 805 corridor, which links Mission Valley to communities to the north, such as Serra Mesa and Kearny Mesa.



Bus on Camino de la Reina shows how cycling and transit can be combined.



Fashion Valley Transit Center serves as a transfer point between the trolley and many bus routes.



Hazard Center Trolley Station and surrounding mixed-use development.

Safety

Most transit users access transit stops by walking or biking. Therefore, high numbers of bicycle and pedestrian collisions near a transit stop may indicate safety issues for transit users at that location. Fashion Valley Transit Center, Hotel Circle South near Bachman Place, and Camino Del Rio South near Qualcomm Way/Texas Street have experienced three or more bicycle and pedestrian related collisions in a five-year period.

Connectivity

There is a lack of high quality transit service (light rail, bus rapid transit) serving Mission Valley in the north and south direction. Although there is a rapid bus that travels along I-15, there is no bus station located within the community. Therefore, future connectivity improvements may be beneficial near the intersection of Interstate 15 and Camino Del Rio North. This location could be a potential transfer point between the MTS Rapid 235 service linking Escondido to Downtown San Diego, and the San Diego Trolley Green Line linking Downtown San Diego to Santee. Establishing a connection between these frequent, high-quality transit lines will improve connectivity to regional travel opportunities via public transit.

4.3 PEDESTRIAN NEEDS

The pedestrian environment affects us all whether we are walking to transit, a store, school, or simply walking from a parked car to a building. Most people prefer walking in places where there are sidewalks shaded with trees, lighting, interesting buildings or scenery to look at, other people outside, neighborhood destinations, and a feeling of safety. Pedestrian improvements in areas with land uses that promote pedestrian activities can help to increase walking as a means of transportation and recreation. Land use and street design recommendations that benefit pedestrians also contribute to the overall quality, vitality, and sense of community of neighborhoods.

Pedestrian needs identified in the Mission Valley community include locations with high pedestrian collisions, sidewalk connectivity issues, high existing pedestrian activity, and high pedestrian priority as reported by the update City of San Diego's Pedestrian Priority Model. These needs are depicted in Figure 4-3.

Safety

Pedestrian comfort traveling along segments is highly influenced by right-of-way width, vehicular traffic volumes and speed, and adequate separation from vehicles. Pedestrian comfort and safety at intersections is influenced by lighting, crosswalk visibility, crossing distance, and traffic control measures. Additionally, personal safety and comfort considerations, such as planters, public seating, presence of illegal graffiti and sidewalk cleanliness reinforce quality of the facility. Together, these factors play a major role in determining a person's willingness to make a trip by walking.

The central portion of Mission Valley, between State Route 163 and Interstate 805, exhibits the highest number of pedestrian collisions in the community. In particular, there are four intersections with high pedestrian collisions (defined as two or more collisions in a five-year period) including:

- Friars Road and Frazee Road
- Hazard Center Drive and Frazee Road
- Rio San Diego Drive and Qualcomm Way
- Camino Del Rio South and Qualcomm Way

Sidewalk Connectivity

Connectivity is an important feature to consider for increasing walking activity levels across a community. A disconnected pedestrian network discourages active trip-making. Furthermore, a discontinuous network with low-quality or unsafe segments may cause a potential active traveler to choose driving. Understanding barriers to connectivity, such low-quality or missing sidewalk, is important for guiding long range planning recommendations.

There are many roadways with missing sidewalks in Mission Valley including major segments of Friars Road, Hotel Circle North and South, and Camino del Rio North and South. Furthermore, some of these streets are served by bus routes, making it difficult for pedestrians to access transit stops.



Pedestrians approaching Mission Valley Center Trolley Station.

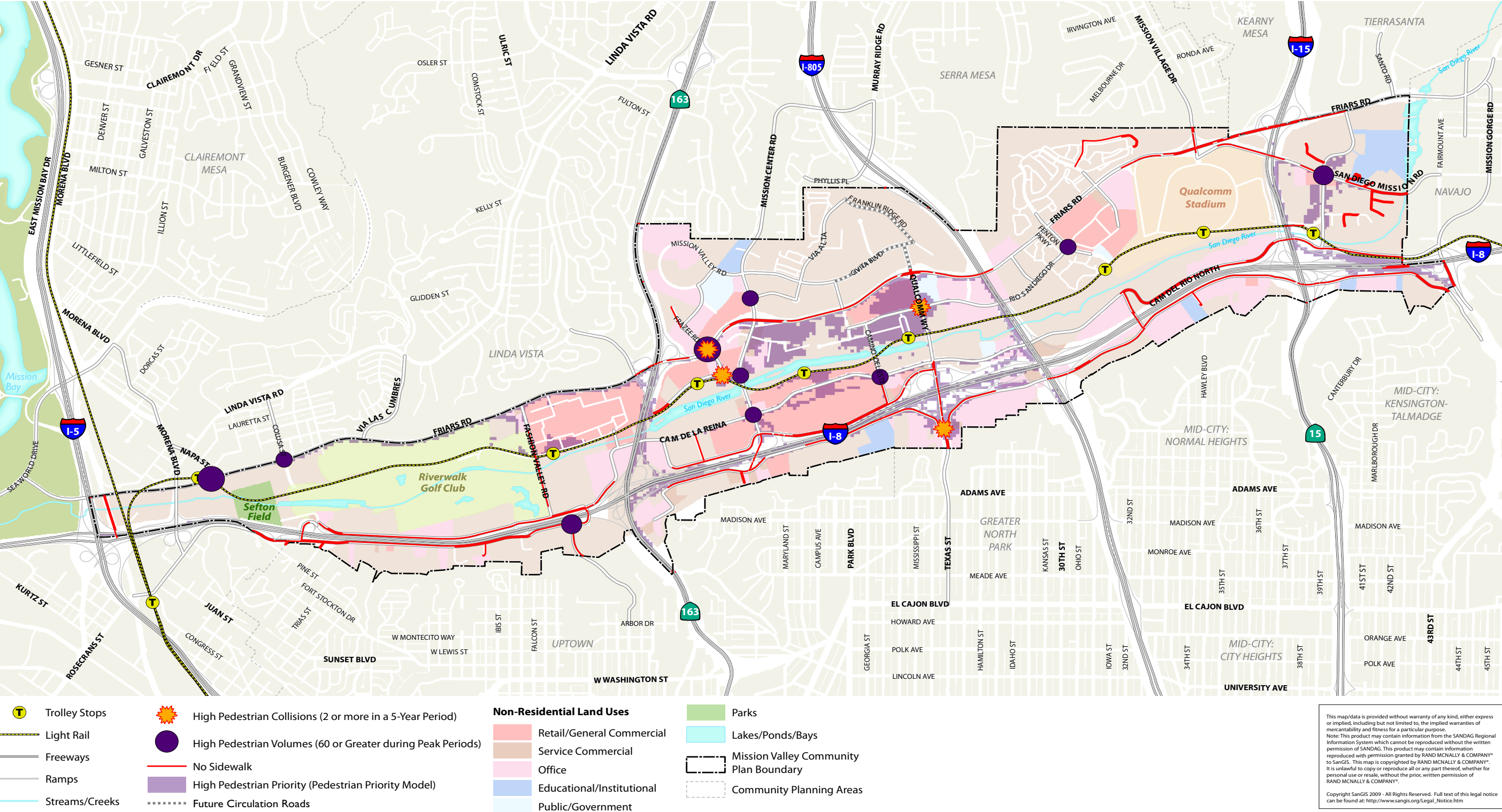


New developments in central Mission Valley, such as Civita, reflect high pedestrian priority.

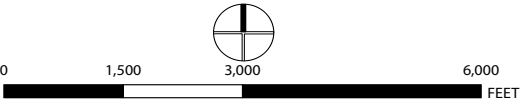


High intensity Activated Crosswalk (HAWK) beacons, such as on Mission Center Road, encourage safe pedestrian crossing.

Figure 4-3: Pedestrian Needs



Data Source: City of San Diego, 2015; Chen Ryan Associates, 2015; SANGIS Regional GIS Data Warehouse, 2015. (www.sangis.org) Dyett & Bhatia, 2015



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Pedestrian Activity

High pedestrian volumes are generally found near transit stops, retail, general commercial, and office land uses. There are ten high pedestrian volume locations (defined as sixty or more pedestrians during peak periods) in the Mission Valley Community including:

- Three intersections along Friars Road at Napa Street, Colusa Street, and Frazee Road
- Three intersections along Mission Center Road At Westside Drive, Hazard Center Drive, and Camino de la Reina
- Hotel Circle South at Bachman Place
- Camino del Este at Camino de la Reina
- Rio San Diego Drive at Fenton Parkway
- San Diego Mission Road at Rancho Mission Road

Pedestrian Priority Model

Pedestrian Priority Areas are determined using the City of San Diego's Pedestrian Priority Model. The model evaluates community characteristics including demographic data, traffic volumes & speed, pedestrian collisions, presence of street lighting, location of transit stations, and land uses such as residential, employment, shopping, schools, and parks. The model uses these factors to determine the areas where pedestrian demand is likely to be high and improvements may be most beneficial. In Mission Valley, the highest priority is placed in the central portion of the community, as well as near Mission San Diego and major transit corridors such as Friars Road.

4.4 BICYCLE NEEDS

Bicycle infrastructure should provide for the safety and comfort of its users, and the bicycle network should be very well connected across a community. Safety and comfort are paramount considerations, since by nature, active travelers are more exposed than those inside a vehicle. Unsafe or uncomfortable conditions discourage the decision to make a trip by bike. Network connectivity is also paramount, since safe, comfortable infrastructure will not be useful if destinations cannot be reached.

Bicycle needs are found throughout the Mission Valley community. Needs are identified by locations with a high number of bicycle collisions, the amount of stress likely to be experienced by a bicyclist, lack of existing bicycle facilities, and high cycling demand. These needs are depicted in Figure 4-4.

Safety

There are two intersections with high bicycle collisions (defined as two or more collisions in a five-year period) including: Rio San Diego Drive & Station Village Way and Qualcomm Way/Texas Street & Camino Del Rio South. This low number of high bicycle collision locations is probably due to fewer cyclists feeling comfortable biking in the community, rather than proof that the community has a safe bicycle network.

Bicycle Level of Stress

Bicycle Level of Traffic Stress (LTS) measures the level of comfort a cyclist would experience on a roadway, taking into account speed of traffic, presence of a physical barrier from traffic, width of bike facility, number of auto travel lanes, and intersection control. This measurement classifies streets and intersections from LTS 1 (suitable for children) through LTS 4 (suitable for riders who are comfortable sharing the road with autos traveling at 35 mph or more).

In general, stress levels are high along most roadways in Mission Valley, regardless of the presence of bicycle facilities due to high traffic speeds, the high number of auto travel lanes, as well as the limited space given to the cyclists.

Existing Bicycle Facilities

There are three general classifications of bicycle facilities, including:

Class I – Bike Path (also termed shared-use or multi-use paths)

Bike paths are paved right-of-way for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-way or exclusive right-of-way. There are Class I bike paths in Mission Valley along Friars Road, Stadium Way, the San Diego River Trail, and the Ocean Beach Bike Path.



Cyclists on Friars Road using a bike lane adjacent to parking.

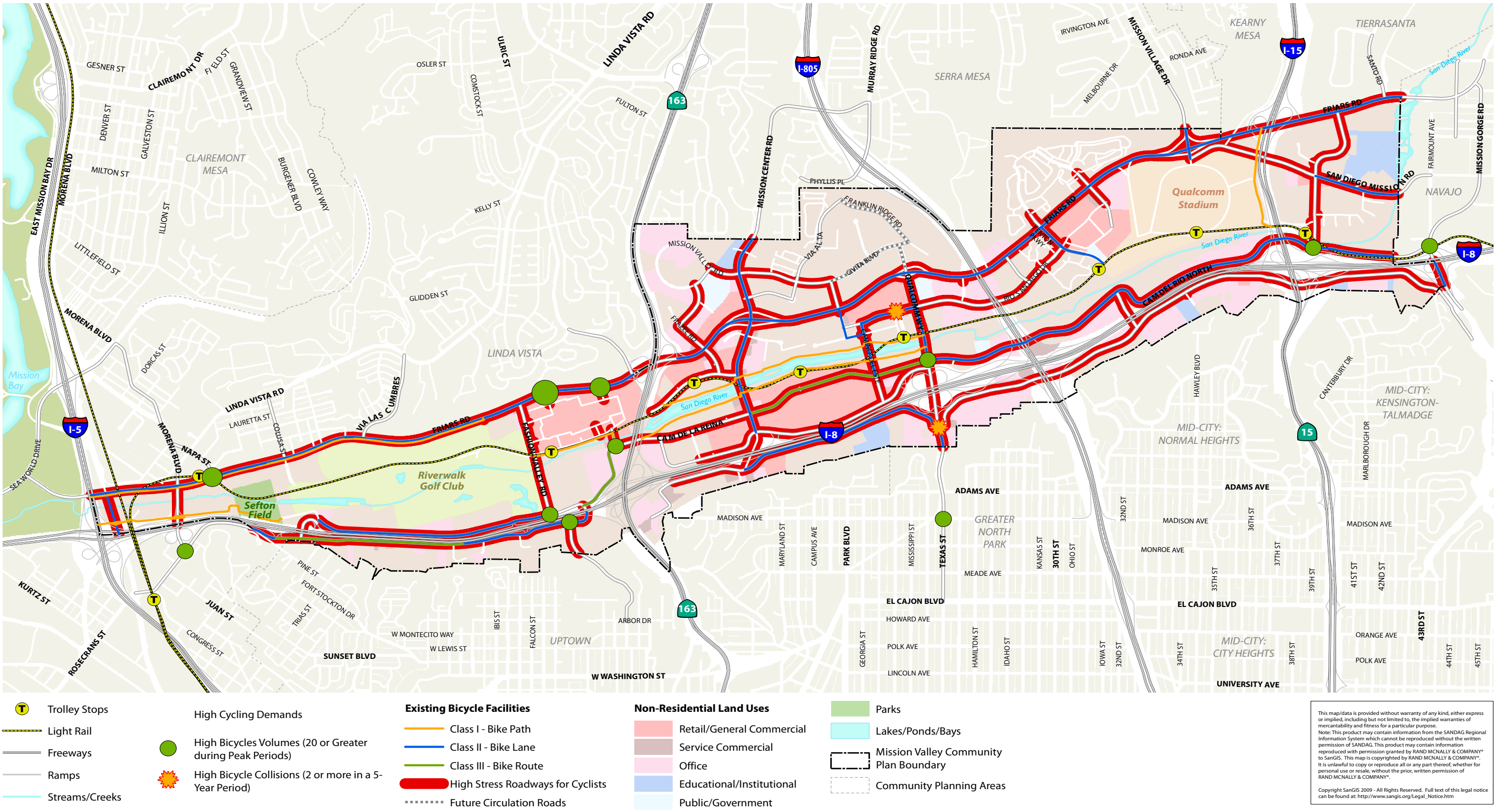


Bike lanes along Friars Road place riders in close proximity to fast-moving traffic.



Multi-use trails, such as under State Route 163, increase bicycle connectivity in the community.

Figure 4-4: Bicycle Needs



Data Source: City of San Diego, 2015; Chen Ryan Associates, 2015; SANGIS Regional GIS Data Warehouse, 2015. (www.sangis.org) Dyett & Bhatia, 2015



Class II – Bike Lane

Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Bike lanes are one-way facilities on either side of a roadway. There are Class II bike lanes in Mission Valley along Friars Road, Hotel Circle North and South, Camino del Rio North and South, and Mission Center Road.

Class III - Bike Route

Bike routes provide shared use with motor vehicle traffic within the same travel lane and are frequently marked with a sharrow. Designated by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. There are Class III bike routes in Mission Valley along Hotel Circle South and Camino de la Reina.

Bicycle Demand

Bicycle Demand is estimated through a number of factors including existing bicycle facilities, land uses (residential, employment, shopping, schools, parks/recreation), location of transit stations, and demographic data. The Mission Valley community shows high demand in the north-south direction. There is also high demand along Friars Road near the cluster of shopping centers. These bicycle travel demand estimates are generally supported by higher observed bicycle volumes.

There are eleven high bicycle volume locations (defined as twenty or more bicycles during peak periods) in the Mission Valley Community including:

- Three intersections along Friars Road at Napa Street, Via De La Moda, and Avenida Del Rio
- Three intersections along Camino Del Rio North at Qualcomm Way, Rancho Mission Road, and Mission Gorge Road
- Taylor Street at Morena Boulevard
- Hotel Circle North at Fashion Valley Road
- Hotel Circle South at Bachman Place
- Camino De La Reina at Avenida Del Rio
- Texas Street at Madison Avenue

4.5 PARKING NEEDS

Greater management of parking spaces can help achieve mobility, environmental, and community development goals. Motorists are accustomed to “free” parking at many destinations, but in reality no parking is without cost. The real cost of parking is paid by everyone through higher rents, lower salaries, higher costs of goods and services, or taxes – regardless of how many cars we own or how much we drive. This system of “bundling” parking costs with other goods and services lowers the out-of-pocket expenses of driving and makes other types of travel seem expensive by comparison. Research suggests that when the real costs of parking are passed on directly to drivers, the demand for parking typically drops, and alternative modes of transportation, where available (such as transit, carpooling, walking, and bicycling) become more attractive and viable for certain trips.

Parking Occupancy

Due to the abundance of off-street parking at the retail and employment centers in Mission Valley, on-street parking is underutilized in parts of the community. Roadways in the Mission Valley Community with high rates of observed on-street parking occupancy (over 85%) during one or more peak periods are generally located near retail, commercial, or office land uses, as shown in Figure 4-5. In particular, segments include Friars Road from Colusa Street to Fashion Valley Road, Friars Road adjacent to the Fashion Valley Mall, Murray Canyon Road, Frazee Road, Westside Drive, Russell Park Way, Rio San Diego Drive, River Run Drive, Rancho Mission/Ward Road, Hotel Circle South, and along Camino Del Rio South west Texas Street and between Mission City Parkway and Interstate 15.



Parking demands in Mission Valley are high during peak periods.

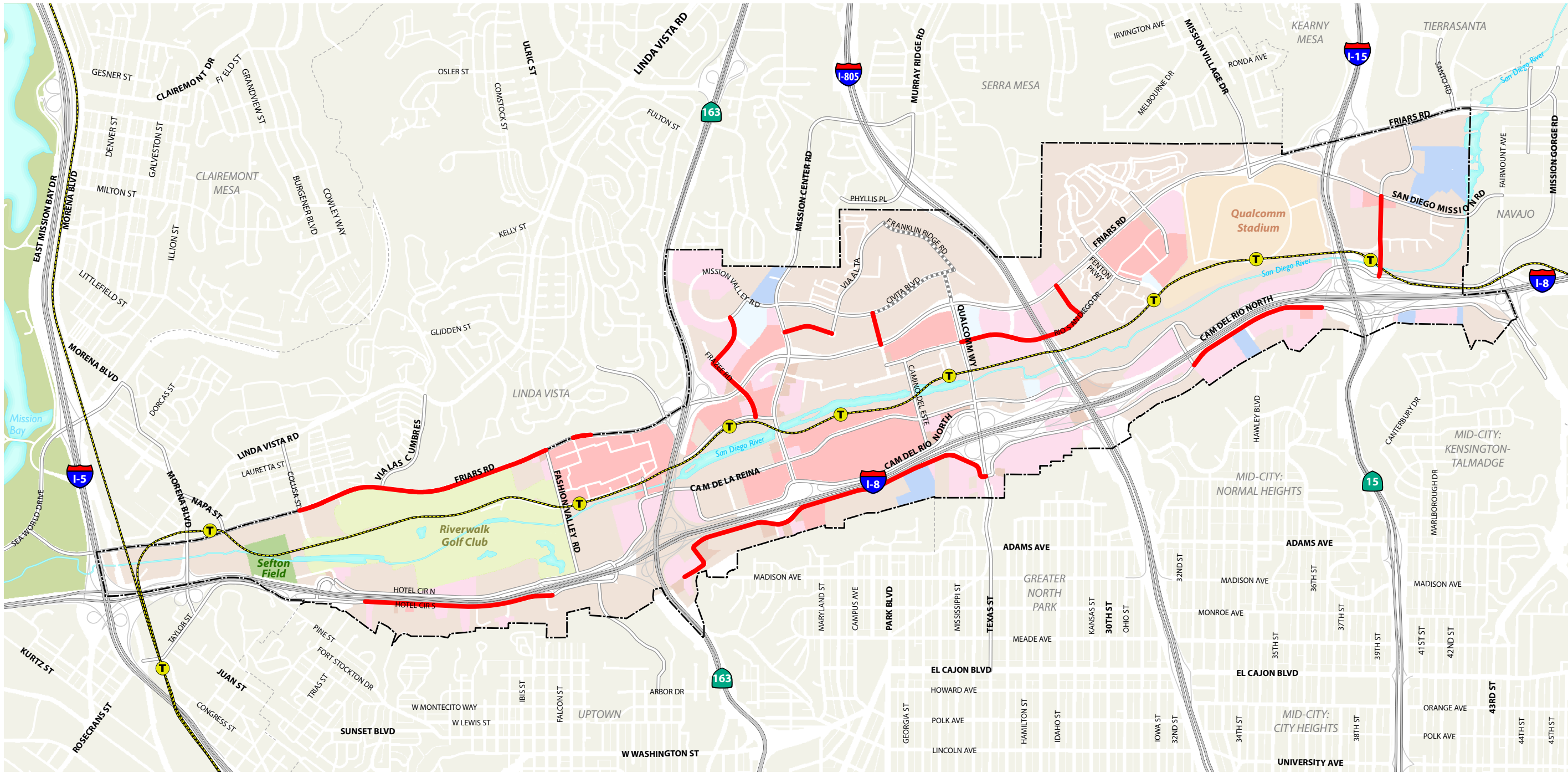


Shared parking at Fashion Valley Transit Center and mall.



Example of common surface parking lots with significant capacity.

Figure 4-5: Parking Needs



| | | | |
|----------------|--|----------------------------------|--|
| Trolley Stops | High Observed On-Street Parking Occupancy | Non-Residential Land Uses | Parks |
| Light Rail | 85% - 100% | Retail/General Commercial | Lakes/Ponds/Bays |
| Freeways | Future Circulation Roads | Service Commercial | Mission Valley Community Plan Boundary |
| Ramps | | Office | Community Planning Areas |
| Streams/Creeks | | Educational/Institutional | |
| | | Public/Government | |

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