



3 MOBILITY

To fulfill the City of San Diego General Plan's key strategy of becoming a "City of Villages," this community plan fosters high quality growth along key corridors and near trolley stations. In order for compact, mixed use villages to thrive, legitimate travel choices need to be broadened so that a good portion of trips can be made without a car. Walking, cycling, and transit should not be modes of last resort; rather they should be convenient, pleasant, safe and desirable modes of travel. To this end, the Mobility Element includes goals, policies, and recommendations that will lead to a robust multimodal network that encourages walking, bicycling, and taking transit while continuing to provide for needed vehicular access in the community.

GOALS

1. A complete network of pedestrian-friendly, multi-modal facilities throughout the community.
2. Wayfinding programs to support efficiency and enhance use of all transportation modes.
3. Pedestrian-friendly infrastructure including sidewalks with parkways, gridded streets and pedestrian-scale blocks.
4. Safe, walkable neighborhoods which utilize new paseos, pedestrian connections, improved sidewalks, and make use of the alley network for vehicular access.
5. A complete, safe, and efficient bicycle network that connects community destinations and links to surrounding communities and the regional bicycle network.
6. High-quality public transit service as the preferred transportation mode for employees and residents centered around transit-oriented development within the Village District.
7. Adequate capacity and improved regional access for vehicular traffic.
8. Efficient use of parking resources through parking management strategies in the clustered commercial or industrial areas and high frequency transit corridors to reduce the costs associated with providing parking and reduce parking impacts while supporting local businesses.
9. Interagency coordination to provide additional comprehensive mobility strategies and opportunities, funding resources, and inter jurisdictional cooperation.
10. Improve and stimulate investments in the community.

TABLE 3-1: MOBILITY TOPICS ALSO COVERED IN OTHER PLAN ELEMENTS

MOBILITY TOPIC AREAS	LAND USE	URBAN DESIGN	RECREATION	CONSERVATION AND SUSTAINABILITY
Transit-oriented Development	X			
Streetscape		X		
Multi-use Trails			X	
Walkable Communities				
Greenhouse Gas Emissions Reduction				X

The Southeastern San Diego mobility network is comprised of diverse elements, including roadway and free-way systems, public transit services including bus and light rail, and bicycle and pedestrian infrastructure; and each has an important role in serving the future needs of the community. The freeways and the Orange Line Trolley provide regional accessibility between Southeastern San Diego and other locations across the County. Within the community, there is a fairly well-connected grid of arterial and local roadways that provides for a high level of connectivity. In addition, the community is well-served by public transit, with the Orange Line traversing the entire community, west to east, and five Metropolitan Transit System (MTS) bus routes providing for local and regional travel. The Mobility Element builds upon these strengths and envisions a significantly enhanced network of bicycle facilities along with improvements to the pedestrian environment, transit services and transit stop amenities.

3.1 Active Transportation

Active transportation refers to those modes of travel powered by human energy, primarily walking and cycling. In addition to environmental, social, economic, and transportation benefits, active transportation creates important opportunities for routine physical activity resulting in public health benefits.

Walkable Communities

Pedestrian comfort and safety is a cornerstone of the City of Villages transportation/land use strategy. In Southeastern San Diego, the Orange Line Trolley stations at 25th Street and 32nd Street, and the many neighborhood scale commercial destinations within the community will contribute to increasingly vibrant pedestrian realms. There are deficiencies in the pedestrian environment that make mobility more challenging including freeway and ramp intersections, the light rail/railroad right-of-way, Chollas Creek, high vehicular travel speeds, wide intersection crossings, lack of physical and landscape pedestrian buffers from moving vehicles, insufficient lighting, and missing sections of sidewalk and curb ramps. The Mobility Element seeks to address these where possible.

Pedestrian routes in Southeastern San Diego have been classified based on definitions developed as part of the City’s Pedestrian Master Plan effort, and are shown in Figure 3-1, and summarized in Table 3-2. General Plan policies ME-A.1 through ME-A.9, as well as Table ME-1 (Pedestrian Improvement Toolbox), and Table ME-2 (Traffic Calming Toolbox), should be consulted for additional policies.

Walkability Policies

- P-MO-1:** Support and promote complete sidewalk and intersection improvements along Market Street, Imperial Avenue, Commercial Street and National Avenue.
- P-MO-2:** Install missing sidewalk and curb ramps and remove accessibility barriers.
- P-MO-3:** Provide marked crosswalks and pedestrian countdown timers at all signalized intersections.
- P-MO-4:** Improve the pedestrian environment adjacent and along routes to transit stops through the installation and maintenance of signs, crosswalks, and other appropriate measures.
- P-MO-5:** Provide shade-producing street trees and street furnishings with an emphasis in the Community Villages and along routes to schools and transit.
- P-MO-6:** Provide adequate lighting for safety and security, including retrofitting freeway underpasses.

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Pedestrian countdown signal (top). Pedestrian amenities, Solana Beach, CA (middle). Pedestrian lead interval (bottom).

FIGURE 3-1: Pedestrian Routes

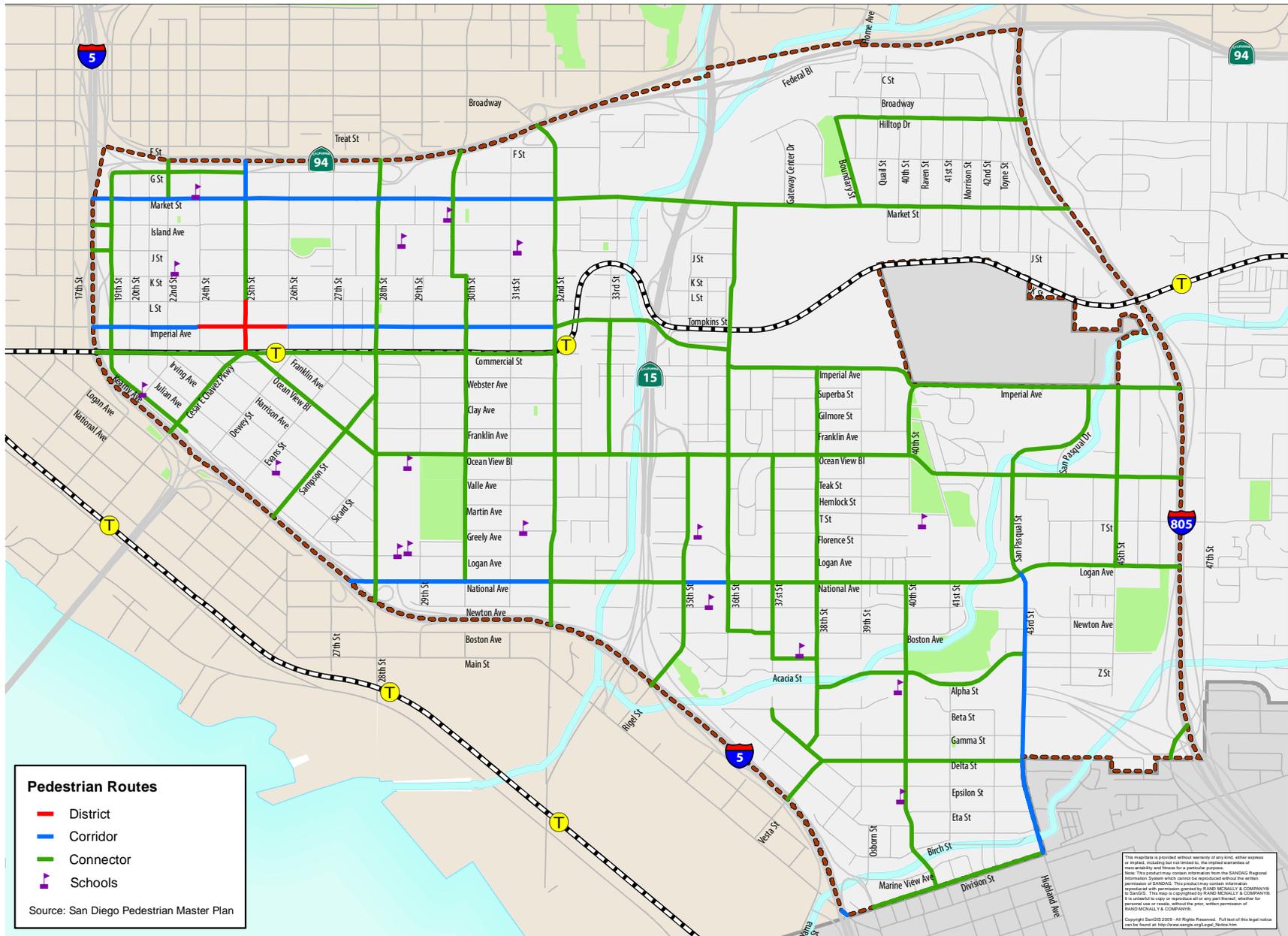


TABLE 3-2: PEDESTRIAN ROUTE TYPES	
ROUTE TYPE	PURPOSE
District Sidewalks	Sidewalks along roads that support heavy pedestrian levels in mixed-use concentrated urban areas.
Corridor Sidewalks	Sidewalks along roads that support moderate density business and shopping districts with moderate pedestrian levels.
Connector Sidewalks	Sidewalks along roads that support institutional, industrial or business complexes with limited lateral access and low pedestrian levels.
Neighborhood Sidewalks	Sidewalks along roads that support low to moderate density housing with low to moderate pedestrian levels.

Bicycling

Development of a well-connected, dense bicycle network including high quality, protected facilities where feasible, will facilitate cycling and help meet community travel needs. Separated bicycle facilities are known to be safer and to promote increased cycling rates among the general population, the majority of whom are uncomfortable riding in unprotected facilities. Table 3-3 illustrates bicycle facility typologies that are recommended and Figure 3-2 shows a map of the proposed bicycle facilities in Southeastern San Diego.

General Plan policies ME-F.1 through ME-F.6, as well as the following community-based policies should be consulted for guidance. Key proposed bicycling corridors in Southeastern San Diego include: Market Street, Imperial Avenue, National Avenue, and the Chollas Creek Branches.

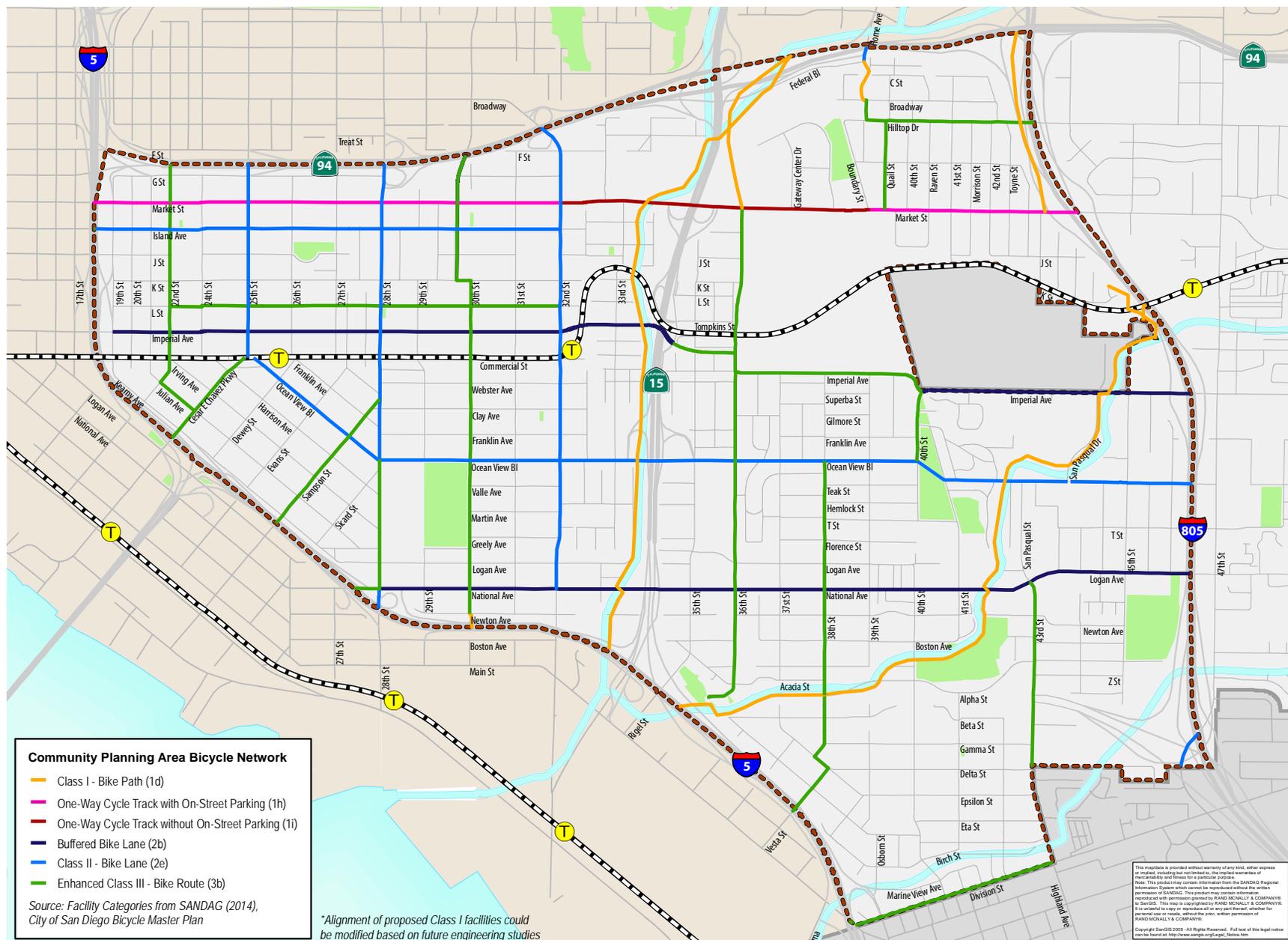
Bicycling Policies

- P-MO-7:** Where feasible, repurpose right-of-way to provide and support a continuous network of safe, convenient and attractive bicycle facilities shown in Figure 3-2, connecting Southeastern San Diego to the citywide bicycle network.
- P-MO-8:** Implement multi-use trails recommended in the Chollas Creek Master Plan.
- P-MO-9:** Provide secure, accessible bicycle parking, particularly at the 25th and Commercial and 32nd and Commercial trolley stations, within commercial areas, and at concentrations of employment throughout the community.

TABLE 3-3: PROPOSED BICYCLE FACILITY TYPOLOGIES		
BICYCLE FACILITY TYPE	ILLUSTRATION	RECOMMENDED MINIMUM WIDTH
Cycle Track	<p>1-way</p> 	<ul style="list-style-type: none"> • Minimum 8' (5' bikeway + 3' buffer) • Desired 10' (7' bikeway + 3' buffer)
Bike Lane	<p>Buffered</p> 	<ul style="list-style-type: none"> • Minimum 7' including buffer
	<p>Conventional</p> 	<ul style="list-style-type: none"> • Minimum 5'
Mixed Flow	<p>Boulevard</p> 	<ul style="list-style-type: none"> • No additional pavement width required • Prioritize non-motorized modes through traffic calming and bicycle treatments, such as vertical and horizontal signage, wayfinding, etc.
	<p>Marked Route</p> 	<ul style="list-style-type: none"> • No additional pavement width required
Multi-Use Path		<ul style="list-style-type: none"> • 8' minimum width • 10' – 12' recommended • 2' buffer recommended

Source: NACTO Urban Bikeway Design Guide, 2011 and AASHTO, 2010.

FIGURE 3-2: Planned Bicycle Network





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3.2 Public Transit

Southeastern San Diego is served by both local and regional transit with the Metropolitan Transit System (MTS) providing five bus routes and the Orange Line trolley service in the community as shown in Figure 3-3: Public Transit Facilities. Nearly all of Southeastern San Diego is within a quarter-mile of a transit stop. There are very high transit demand nodes at the Orange Line trolley stations at 25th Street and 32nd Street; and at bus stops at 38th Street and 43rd Street along National Avenue. The San Diego Association of Governments (SANDAG) 2050 RTP includes the following planned transit improvements for this community, contingent on future funding:

- Local bus services would increase to 15-minute headways in 2020 and 10-minute headways in 2030.
- A new Bus Rapid Transit (BRT) route would serve the I-805 corridor from Otay Mesa to Sorrento Valley.
- A new rapid bus route would run between Spring Valley and San Diego State University traveling through Southeastern San Diego.
- A new rapid bus route would connect North Park and the 32nd Street Trolley Station.
- The Orange Line Trolley would have increased frequencies and an Orange Line Express would serve between El Cajon and Downtown San Diego.
- A new Light Rail Transit line would provide service between University Town Center and San Ysidro and travel through Southeastern San Diego.

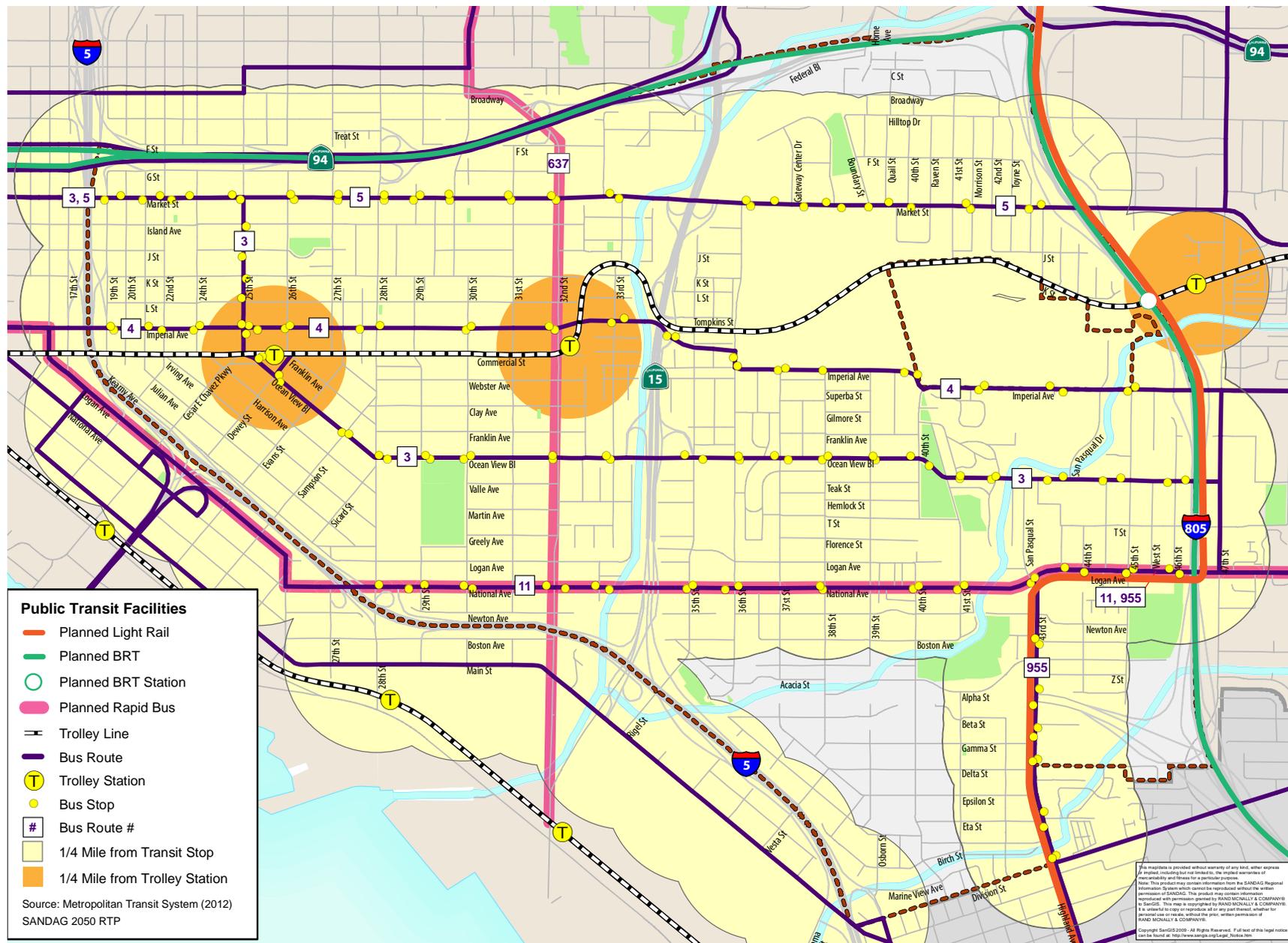
General Plan Policies ME-B.1 through ME-B.10, as well as the following community-based policies should be consulted for guidance.

Public Transit Policies

- P-MO-10:** Provide multi-modal access through the integration of transit within employment areas and the creation of safe and direct bicycle and pedestrian connections (refer to General Plan Policies UD-D.1 through D.3).
- P-MO-11:** Improve the environment surrounding bus and trolley stops through installation of curb extensions, shelters, additional seating, lighting, trash receptacles, and landscaping where appropriate.
- P-MO-12:** Highlight the presence of the two trolley stations through wayfinding signage and treatments on pedestrian routes to and from each of the stations.
“Treatments” refers to pedestrian improvements such as those listed on page 4-11 of the Pedestrian Master Plan Phase 1 Report.
- P-MO-13:** Work with MTS to incorporate measures to improve personal safety such as lighting, emergency call boxes, and similar upgrades at each of the trolley stations.
- P-MO-14:** Work with MTS and SANDAG to implement transit priority measures to improve transit travel times.
- P-MO-15:** Work with SANDAG to implement transit infrastructure and service enhancements in the Regional Transportation Plan, and to incorporate additional transit services and facilities such as a new BRT station along the I-805 corridor connected to the 47th Street Trolley Station, including new rail, pedestrian, and bicycle connections between Southeastern San Diego and Encanto Neighborhoods.

Signage, wayfinding, and placemaking (top). Highway 101 high-visibility crosswalk (middle), Solano Beach, CA. Improve the entrances surrounding bus and trolley stops (bottom).

FIGURE 3-3: Public Transit Facilities





KOA CORPORATION

NYC DOT

Buffered bike lane (top). Cycle tracks, Long Beach, CA and New York, NY (bottom).

3.3 Streets and Freeway System

The street network in Southeastern San Diego provides a high degree of connectivity, which allows for shorter travel distances between origins and destinations. Users of all modes benefit from shorter trips and multiple route options. Exceptions to this are largely related to topography, Chollas Creek branches, freeways, trolley/rail-line, and the two cemeteries. In addition, numerous regional points of access are provided for the community by four major freeway facilities including I-5, I-15, I-805, and SR-94. Figures 3-4, 3-5, and 3-6 show recommended mobility improvements along Market Street, Imperial Avenue, and National Avenue. Figure 3-4, Existing (2012) Functional Street Classifications and Daily Traffic, displays the existing (2012) street classifications and average daily trip (ADT) volumes. Figure 3-5, Buildout Street Classifications, shows the planned buildout street classifications.

Due to the urbanized nature of the community, most public right-of-way is fully constructed with streets and sidewalks as well as adjacent development. A guiding strategy for street system planning was to provide a Complete Streets network (accommodating all modes and users) while largely limiting recommendations to modifications within the existing rights-of-way, and to avoid extensive road widening in the largely built out urban community.

A number of road diets and lane diets (reducing the number of travel lanes and lane widths) are planned to accommodate high quality bicycle facilities desired in Southeastern San Diego, such as along Market Street, Imperial Avenue, and National Avenue/Logan Avenue.

General Plan Policies ME-C.1 through ME-C.7, as well as Table ME-2 (Traffic Calming Toolbox), provide additional guidance on future street and intersection improvements.

Streets and Freeway Policies

- P-MO-16:** Provide a complete streets network throughout the community, safely accommodating all modes and users of the right of way.
- P-MO-17:** Repurpose right-of-way to provide high quality bicycle, pedestrian, and transit facilities while maintaining vehicular access.
- P-MO-18:** Implement road and lane diets and traffic calming measures where appropriate to improve safety and quality of service, and increase walking and bicycling in the community.
- P-MO-19:** Implement focused intersection improvements to improve safety and operations for all modes.
- P-MO-20:** Provide street trees, street lighting, and implement a wayfinding program.
- P-MO-21:** Ensure efficient movement and delivery of goods to industrial and retail uses while minimizing impacts on residential and mixed use neighborhoods.
- P-MO-22:** Coordinate with Caltrans and SANDAG to identify and implement needed freeway and interchange improvements.
- P-MO-23:** Ensure that truck and auto ingress and egress are taken from alleyways rather than the front of buildings to minimize impacts. Make curb cuts as minimal as possible if no alley exists.

3.4 Intelligent Transportation Systems

Intelligent Transportation Systems or ITS is the application of technology to transportation systems including vehicles, roadways, intersections, transit, traveler information and payment systems with the goal to maximize efficiency of those services while increasing vehicle throughput, reducing congestion, and providing quality information to the commuting public. The application of ITS technologies can influence transportation choices across all modes of travel.

General Plan Policies ME-D.1 through ME-D.6, as well as the following community-based policies should be consulted when evaluating ITS improvements.

Intelligent Transportation Systems Policies

- P-MO-24:** Support implementation of ITS to improve safety, efficiency and service, and congestion, including but not limited to traffic signal coordination, traffic and transit information, smart parking technology, and transit priority measures.
- P-MO-25:** Encourage use of or accommodation for emerging technologies such as car charging stations as part of future infrastructure and development projects.

3.5 Transportation Demand Management (TDM)

Transportation Demand Management (TDM) combines marketing and incentive programs to reduce dependence on automobiles and encourage use of a range of transportation options, including public transit, bicycling, walking and ridesharing.

General Plan Policies ME-E.1 through ME-E.8, as well as the following community-based policies should be consulted when evaluating TDM improvements.

Transportation Demand Management Policies

- P-MO-26:** Encourage new residential, office and commercial developments, as well as any new parking garages to provide spaces for carsharing.
- P-MO-27:** Encourage new commercial, office and industrial development; employers; and new residential development to provide transit passes to employees and residents.
- P-MO-28:** Encourage employers to coordinate with SANDAG to provide commuter transportation programs.



CHEN RYAN ASSOCIATES



SFMTA

Park-it on Market (top). Implement on-street parking management strategy (middle). Back-in angled parking (bottom).

3.6 Parking

Many of the goals and policies of the Community Plan depend on how parking is planned and managed in Southeastern San Diego. These goals include increasing residential intensity and the density and variety of commercial and employment uses as well as reduced vehicle trips, increased sustainability, improved transit, and enhanced urban design.

General Plan Policies ME-G.1 through ME-G.5 as well as Table ME-3 (Parking Strategy Toolbox), as well as the following community-specific recommendations should be considered when evaluating new parking facilities.

Parking Policies

- P-MO-29:** Implement parking regulations that provide sufficient parking to accommodate residents and support businesses while reducing the overall cost of providing parking.
- P-MO-30:** Permit construction of public parking garages that include shared parking arrangements that efficiently use space, are appropriately designed, and reduce the overall number of off-street parking spaces required for development.
- P-MO-31:** Encourage parking spaces to be rented, leased, or sold separately from new residential and commercial space.
- P-MO-32:** Implement on-street parking management strategies in the Community Villages and commercial areas to more efficiently use street parking space and increase turnover and parking availability.

- P-MO-33:** Implement a parking in-lieu fee for new development that would contribute to implementation of parking demand reduction strategies as well as potentially fund parking structures within the community.
- P-MO-34:** Where feasible, restripe side streets to convert parallel parking to angled parking in order to increase the overall parking supply.

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FIGURE 3-4: Market Street between 41st and Morrison Streets



Plan view.



Existing view.



Illustrative view.



Section view.

FIGURE 3-5: Imperial Avenue between 25th and 26th Streets



Plan view.



Existing view.



Illustrative view.



Section view.

FIGURE 3-6: National Avenue between 30th and 31st Streets



Plan view.



Existing view.



Illustrative view.



3-D view.

FIGURE 3-7: Existing (2012) Functional Street Classifications and Daily Traffic

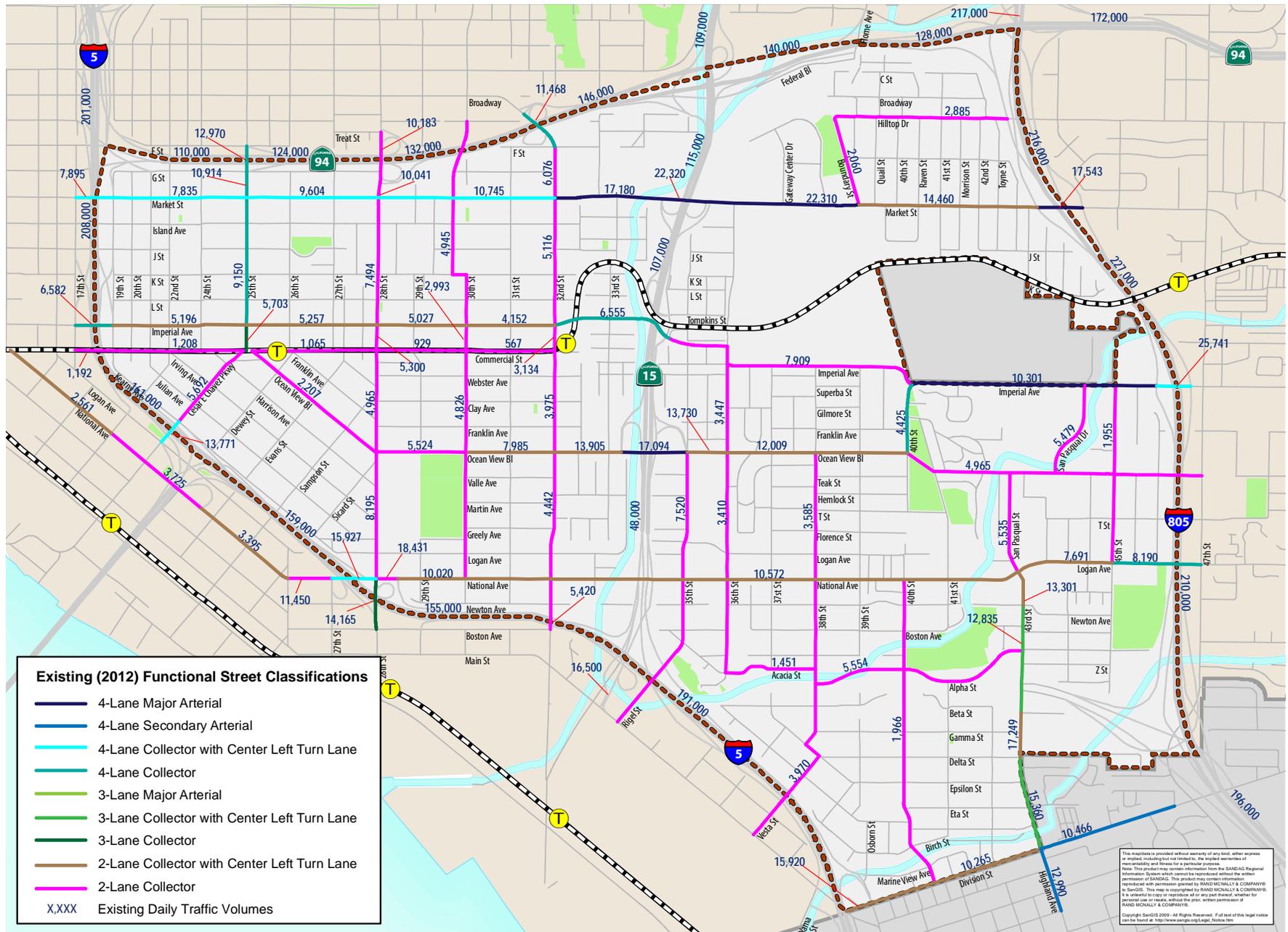
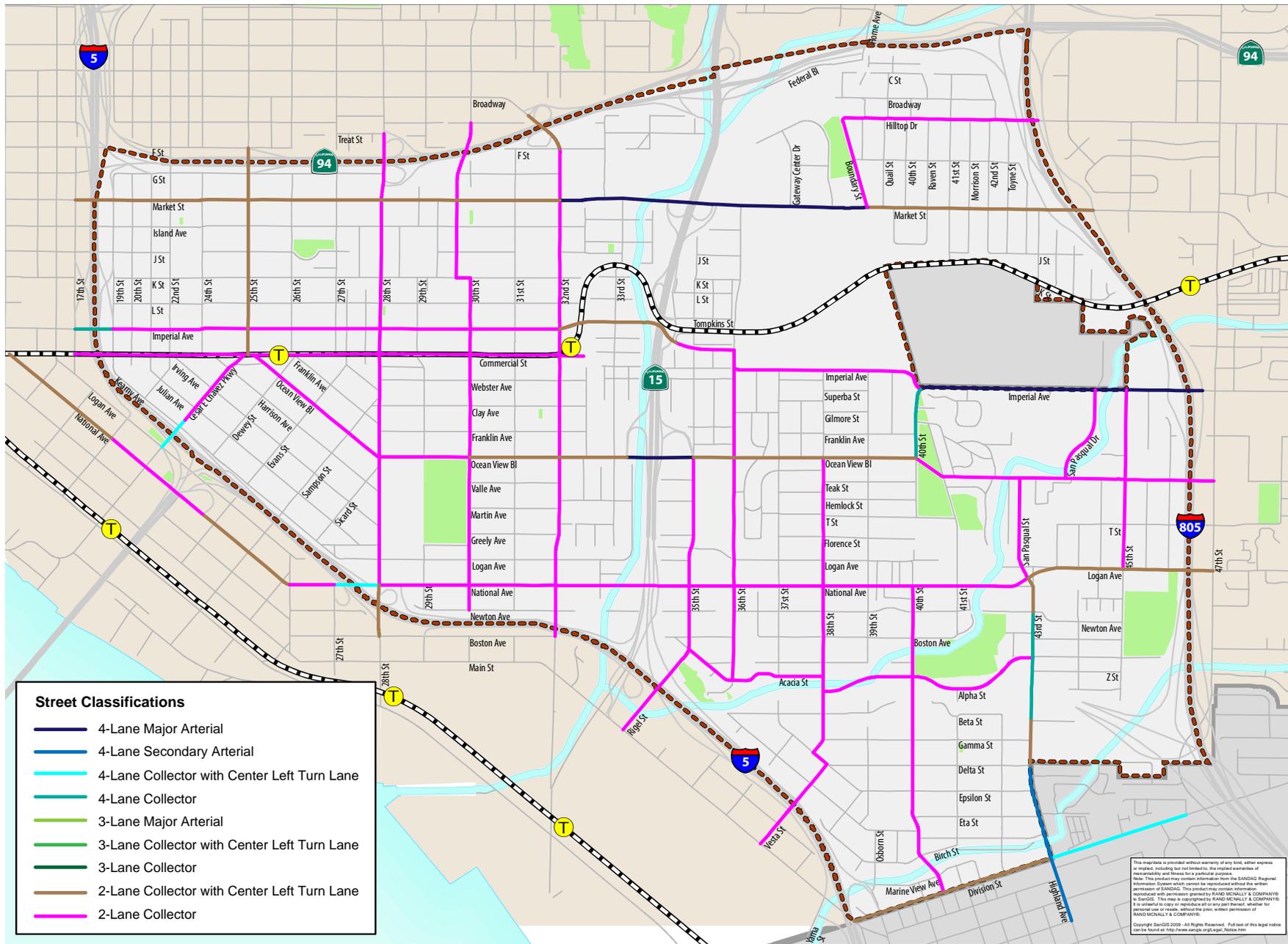


FIGURE 3-8: Buildout Street Classifications and Daily Traffic



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