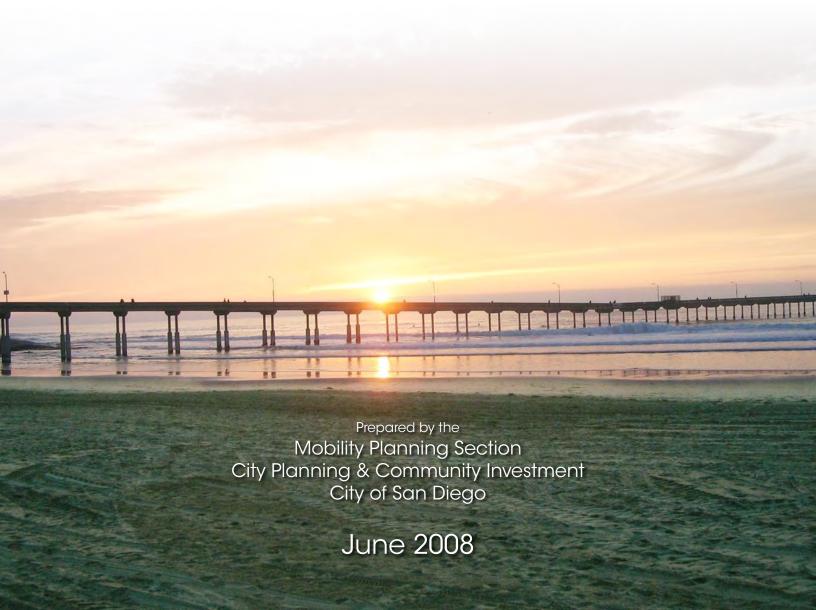
OCEAN BEACH

Existing Conditions Report Mobility Element



OCEAN BEACH

EXISTING CONDITIONS REPORT MOBILITY ELEMENT

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OCEAN BEACH

EXISTING CONDITIONS REPORT MOBILITY ELEMENT

This report addresses the current main motorized and non-motorized modes of travel in Ocean Beach that provide mobility opportunities for residents and visitors. Modes of travel include vehicles, public transit, bicycles, and walking. It is important that transportation be considered in conjunction with land use patterns so that proper access and circulation can be provided. Also, a balanced transportation system is required to provide equal opportunities to all modes of travel.

PEDESTRIAN CIRCULATION

Ocean Beach's grid network of two-lane streets with sidewalks allows its residents to walk to local commercial districts, community facilities, and recreational attractions such as beaches and parks.

The City's Pedestrian Master Plan defines pedestrian route classifications based on the functionality of pedestrian facilities. Pedestrian routes in Ocean Beach were classified based on these definitions and are shown on Figure 1, along with planned land uses and community facilities. Figure 2 shows available data on the number of pedestrians crossing at various intersections in Ocean Beach. The intersection of Cable Street and Newport Avenue shows the greatest numbers of pedestrians crossing the streets with over 200 in the morning peak hour and almost 600 in the evening peak hour.

Pedestrian Facility Assessment

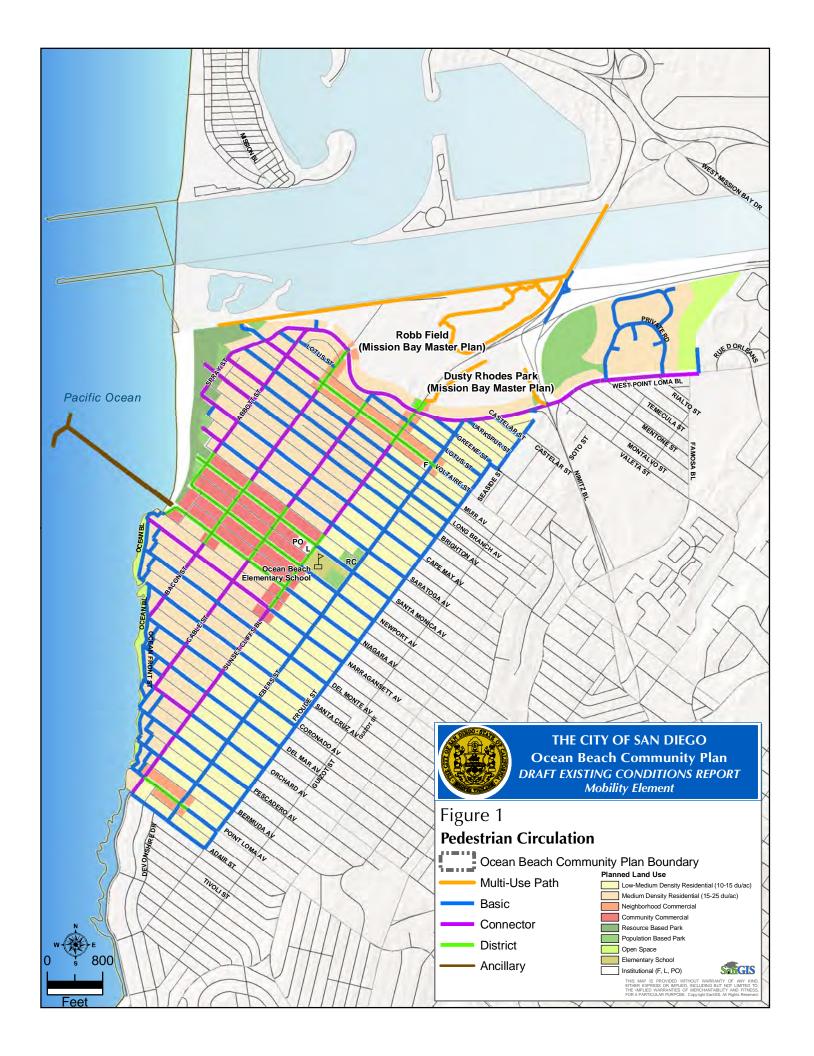
The City is developing a Pedestrian Master Plan to identify pedestrian improvements where needed in a smart, cost effective, orderly, and consistent manner throughout the City. As part of that effort, an inventory of pedestrian facilities in high pedestrian priority areas of Ocean Beach will be undertaken in order to identify deficiencies. The following discussion is a general community-wide assessment of pedestrian conditions that will provide direction for the more detailed Pedestrian Master Plan effort to follow.

Safety

Pedestrian-involved crash data for Ocean Beach is under evaluation to be compared with citywide data. Once completed, the data will be summarized in Table 1.

The following locations experienced three or more pedestrian crashes from 2003 through 2007 but detailed review of the collision data did not reveal a pattern.

- Cable Street and Newport Avenue
- Cable Street and Santa Monica Avenue
- Newport Avenue and Sunset Cliffs Boulevard
- Nimitz Boulevard and West Point Loma Boulevard



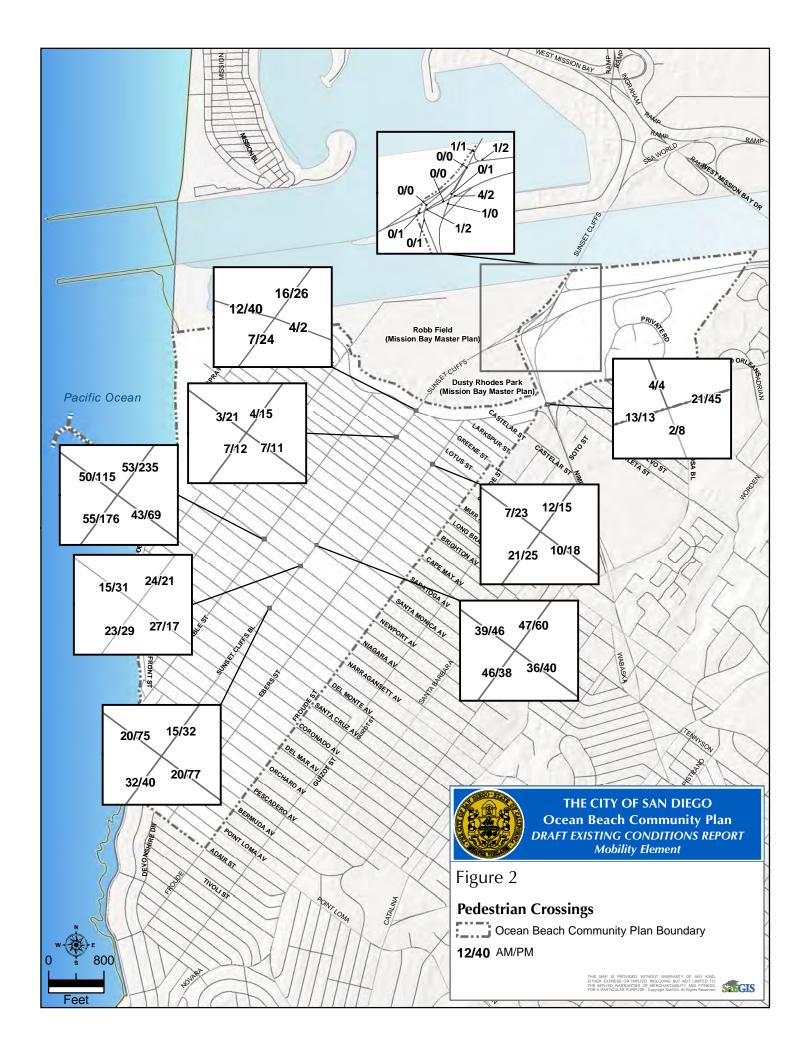


Table 1: Pedestrian-involved Collision Data (2003-2007)

2003 – 2007		Ocean Beach	Citywide
Pedestrian-involved crashes	number		
r cuestran-myorved crasnes	percent of total		
Ped-involved crashes normalized by	number		
average population	percent of total		
Location Type			
Intersection	number		
	percent of total		
Midblock	number		
	percent of total		
Alley	number		
	percent of total		
Other	number		
	percent of total		
Party at Fault			
Pedestrian	number	· ·	
	percent of total		
Driver	number		
	percent of total		
Top three primary causes			
Ped at fault	number		
	percent of total		
Improper start	number		
	percent of total		
Ran stop sign	number		
	percent of total		
Unsafe movement Violated peds row	number		
	percent of total		
	number		
	percent of total		
Age Group			
Under 16	number		
	percent of total		
16-65	number		
	percent of total		
65 and over	number		
	percent of total		
Lighting			
Dark/Dusk	number		
	percent of total		
Daylight	number		
	percent of total		

Based on field observations, the following intersection locations pose difficulty for pedestrians attempting to cross the street due to intersection alignments, crossing distances, and vehicle speeds.

- West Point Loma Boulevard at Ebers Street/Larkspur Street
- West Point Loma Boulevard at Castelar Street
- West Point Loma Boulevard at Cable Street
- West Point Loma Boulevard at Bacon Street

Accessibility

As a community, Ocean Beach's pedestrian facilities are generally accessible to persons with disabilities due to its network of mostly barrier-free sidewalks and presence of curb ramps at most intersections and alleys. Exceptions to this will be inventoried and specific recommendations for access-related pedestrian improvements will be identified as part of the City's Pedestrian Master Plan effort.

Connectivity

Generally, pedestrian connectivity within Ocean Beach is excellent due to its complete grid network of streets. There are pedestrian facilities within the parks that could be better connected to adjacent sidewalks, and pedestrian connections along the beach could be improved. Pedestrian connections to other communities are provided as follows:

- Sunset Cliffs Boulevard sidewalk along the bridge that leads to paths to Mission Bay Park, Linda Vista and Mission Valley
- West Point Loma Boulevard across Nimitz Boulevard sidewalk exists on the north side but is missing on the south side of West Point Loma Boulevard leading to the inbound (eastbound) transit stop on West Point Loma at Nimitz.
- Voltaire Street, Point Loma Avenue, and other local streets that connect over the hill to the Peninsula community.

Pedestrian Level of Service

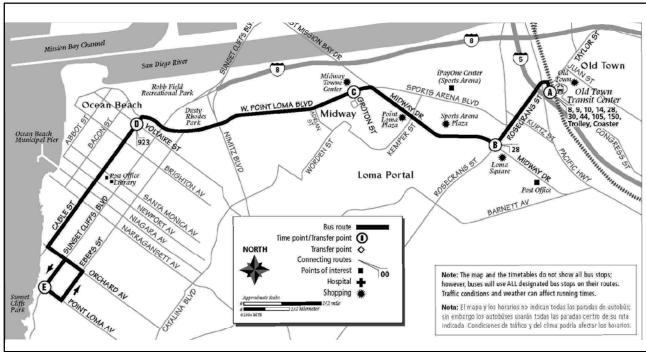
A new methodology is being developed to determine the level of service for pedestrian facilities. This section will be completed when the methodology is applied to the pedestrian data in the community.

PUBLIC TRANSIT

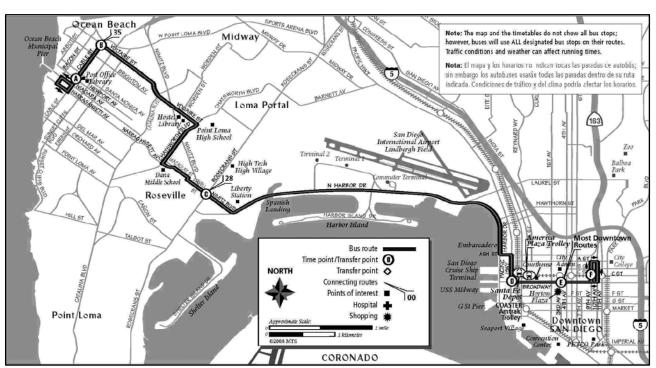
Ocean Beach is currently served by Metropolitan Transit System (MTS) Bus Routes 35 and 923. A detailed description of these services is presented in this section.

Route 35

MTS Route 35, depicted on Figure 3, extends from the Old Town Transit Center to the intersection of Point Loma Avenue and Sunset Cliffs Boulevard in Ocean Beach. The Old Town Transit Center provides regional access to the COASTER, San Diego Trolley Blue and Green Lines, and MTS Routes 8, 9, 10, 14, 28, 30, 44, 105, and 150. From Old Town, the outbound Route 35 goes through the Midway community via Rosecrans Street, Midway Drive and West Point Loma Boulevard, where it enters Ocean Beach. From West Point Loma Boulevard, Route



MTS Route 35



MTS Route 923



35 follows Cable Street to Orchard Avenue to Sunset Cliffs Boulevard to Point Loma Avenue. The return trip continues from Point Loma Avenue to Ebers Street to Orchard Avenue to Cable Street where it then follows the outbound route back to Old Town. The Ocean Beach post office and library are served by this line.

Route 35 weekday service spans from approximately 5:00 AM to 11:00 PM with 35 trips in each direction at approximately 30-minute headways and 23-33 minute travel times. Weekend and holiday service spans from approximately 7:00 AM to 11:00 PM with 33 inbound trips (from Ocean Beach to Old Town) and 32 outbound trips (from Old Town to Ocean Beach) at 30-minute headways and 22-30 minute travel times. Schedule timetables for Route 35 are included in Appendix A. All buses that serve this route are equipped with wheelchair lift or ramp service and bicycle racks.

Route 923

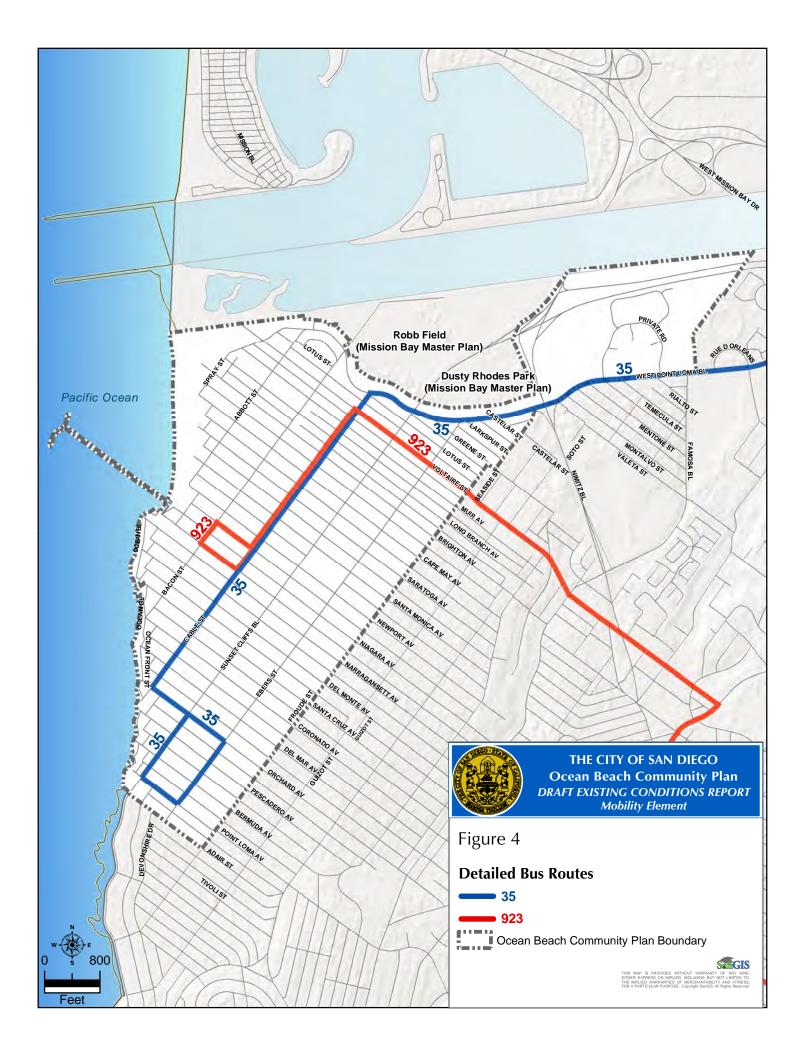
MTS Route 923, also depicted on Figure 3, extends from Downtown San Diego to the intersection of Cable Street and Newport Avenue in Ocean Beach providing access to San Diego International Airport, Santa Fe Depot with connections to Amtrak, the COASTER, San Diego Trolley Blue and Orange Lines; and other MTS routes that connect in Downtown. From Downtown Route 923 goes through the Peninsula community via Broadway, Pacific Highway, Harbor Drive, North Harbor Drive, Nimitz Boulevard, McCaulay Street, Chatsworth Boulevard and Voltaire Street where it enters Ocean Beach. From Voltaire Street, Route 923 follows Cable Street to Niagara Avenue where it makes a loop via Bacon Street and Narragansett Avenue back onto Cable Street for the return trip to Downtown. The Ocean Beach Post Office and Library are served by this route.

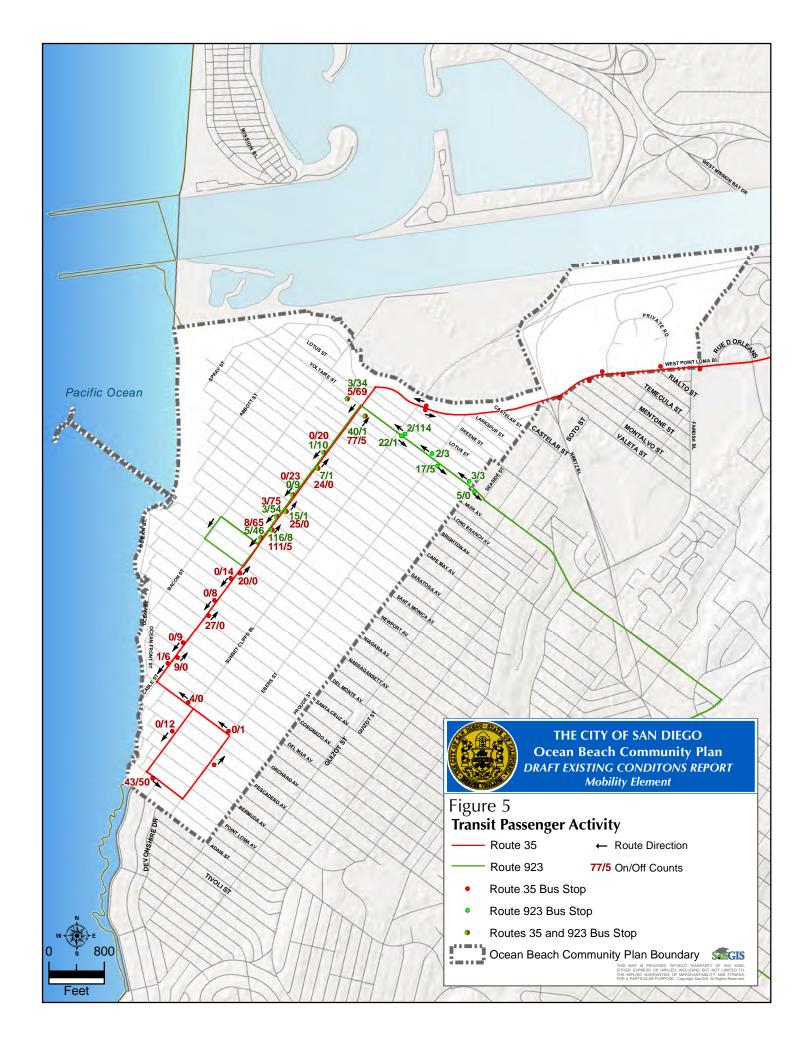
Route 923 weekday service spans from approximately 5:15 AM to 11:00 PM with 32 trips in each direction at 30-minute headways until 8:00 PM when headways become hourly, and 34-48 minute travel times. Weekend and holiday service spans from approximately 6:15 AM to 11:00 PM with 17 trips in each direction at 60-minute headways and 33-45 minute travel times. Schedule timetables for Route 923 are included in Appendix B. All buses that serve this route are equipped with wheelchair lift or ramp service and bicycle racks.

Transit Ridership Counts

Transit ridership data was provided by SANDAG and MTS. At the time of data collection, Route 35 had approximately 840 and Route 923 had approximately 550 daily weekday riders whose trips originated or ended in Ocean Beach. Detailed route alignment for MTS service in Ocean Beach is illustrated on Figure 4. A summary of transit stop use within Ocean Beach based on information collected in Fiscal Year 2006 for Route 35 and Fiscal Year 2007 for Route 923 is presented on Figure 5. Since the time of data collection, Routes 35 and 923 were changed somewhat as part of an MTS system-wide transit service restructuring; therefore data is not available for all existing transit stops and doesn't fully reflect the current service. However, these counts still provide a good indication of the level of passenger activity along the routes. Locations with the most passenger activity were:

- Cable Street and Newport Avenue with 364 boardings (ons) and alightings (offs)
- Cable Street and Voltaire Street with 223 boardings and alightings





- Cable Street and Santa Monica Avenue with 176 boardings and alightings
- Point Loma Avenue and Sunset Cliffs Blvd with 152 boardings and alightings

Tables from the SANDAG Transit Passenger Counting Program showing passenger activities for each of the routes in their entirety and in more detail, including utilization of the services by time of day, are included in Appendix C for Route 35 and in Appendix D for Route 923.

Bus Stops

There are a total of 29 bus stops in Ocean Beach with a spacing of approximately every two blocks. Route 35 serves 23 stops and Route 923 serves 14 stops, with both routes serving 9 stops on Cable Street. An inventory of bus stops including a photograph and information on the routes served, number of daily boardings and alightings, and presence of shelter, seating, lighting, trash receptacles, and concrete pad is provided in Appendix E. Fifteen of the 29 stops that serve Ocean Beach have one or two benches; twenty-two have lighting (nearby street lighting); seven have permanent trash receptacles; and two have a concrete pad or concrete street. Concrete pads prolong the life of the street by protecting it from the wear and tear of repeated bus decelerations and accelerations, which can cause asphalt deform over time.

Stop and Operations Assessment

The primary deficiency for bus stops in the community is the inconsistency of amenities. The bus stop inventory found that no bus stops currently have shelters/kiosks and several stops do not have benches, lighting, and/or trash receptacles. The stops with the highest number of boardings, such as Cable Street and Newport Avenue, and Cable Street and Voltaire Street have the highest number of amenities. Based on providing a strong profile for public transit in the community and considering the passenger activity at individual bus stops, a list of deficiencies was developed in consultation with MTS staff. Table 2 presents the deficiencies identified for bus stops in Ocean Beach.

Additionally, although it is a maintenance issue, Cable Street is in need of resurfacing to address cracking and potholes to improve the quality of the ride and the experience for bus riders.

Operational Issues

Ocean Beach transit services provide good regional connectivity due to their connections to Old Town Transit Center and Downtown. They also provide good local connectivity by serving the community public facilities and commercial areas. Most of the community is within one-quarter mile of a transit stop with the maximum distance to a transit stop of approximately 2,000 feet for just a small residential area of the community.

Table 2: Bus Stop Deficiencies

Existing Bus Stop (direction)*	Shelter	Bench	Lighting	Trash Container	Concrete Pad	Sidewalk Concrete
W Pt Loma at Nimitz (IB)	X			X		
Cable at Voltaire (IB)	X					
Cable at Voltaire (OB)				X		
Cable at Brighton (OB)						X
Cable at Cape May (IB)			X			
Cable at Saratoga (OB)						X
Cable at Santa Monica (IB)		X		•		
Cable at Newport (IB)	X					
Cable at Narragansett (IB)		X	X			X
Cable at Narragansett (OB)					_	X
Cable at Santa Cruz (IB)			X			
Cable at Coronado (OB)	*					X
Cable at Del Mar (IB)		X	X			
Pt Loma at Sunset Cliffs (both)			X			
Ebers at Pescadero (IB)						X
Orchard at Sunset Cliffs (IB)			X			
Voltaire at Ebers (IB)	X					

^{*} IB = inbound (from Ocean Beach to Old Town or Downtown)

Operational issues contribute to delays and affect the quality of transit service. Based on field observations and in consultation with MTS staff the following location was determined to adversely impact transit travel times:

• West Point Loma Boulevard at Nimitz Boulevard outbound (westbound) – Buses experience delays of up to two to three traffic signal cycles on westbound West Point Loma Blvd at Nimitz Boulevard as a result of congestion and queuing, especially during the evening peak period. This intersection approach has one left-turn, one through, and one right-turn lane. Traffic queues in the center through lane, especially during the evening peak period.

Transit operating conditions outside the community, such as on Midway Drive also impact travel times to and from Ocean Beach.

OB = outbound (from Old Town or Downtown to Ocean Beach)

STREET SYSTEM

The Ocean Beach community has a grid network with streets aligned in northeast-southwest and northwest-southeast directions. The Interstate 8 (I-8), which terminates at the northern gateway to Ocean Beach, provides regional access to the community. Connections to eastbound and westbound I-8 are provided via Sunset Cliffs Boulevard. This roadway has a northeast-southwest alignment and it is practically situated in the middle of the community. West Point Loma Boulevard is another street that provides a major access to the community.

Intercommunity access between Ocean Beach and Peninsula is provided by all the northwest-southeast streets. The community is served by two transit lines of the Metropolitan Transit System, described in the Public Transit section of this report. Community streets that are designated for bicycle routes are identified by signage (see Bikeway System section).

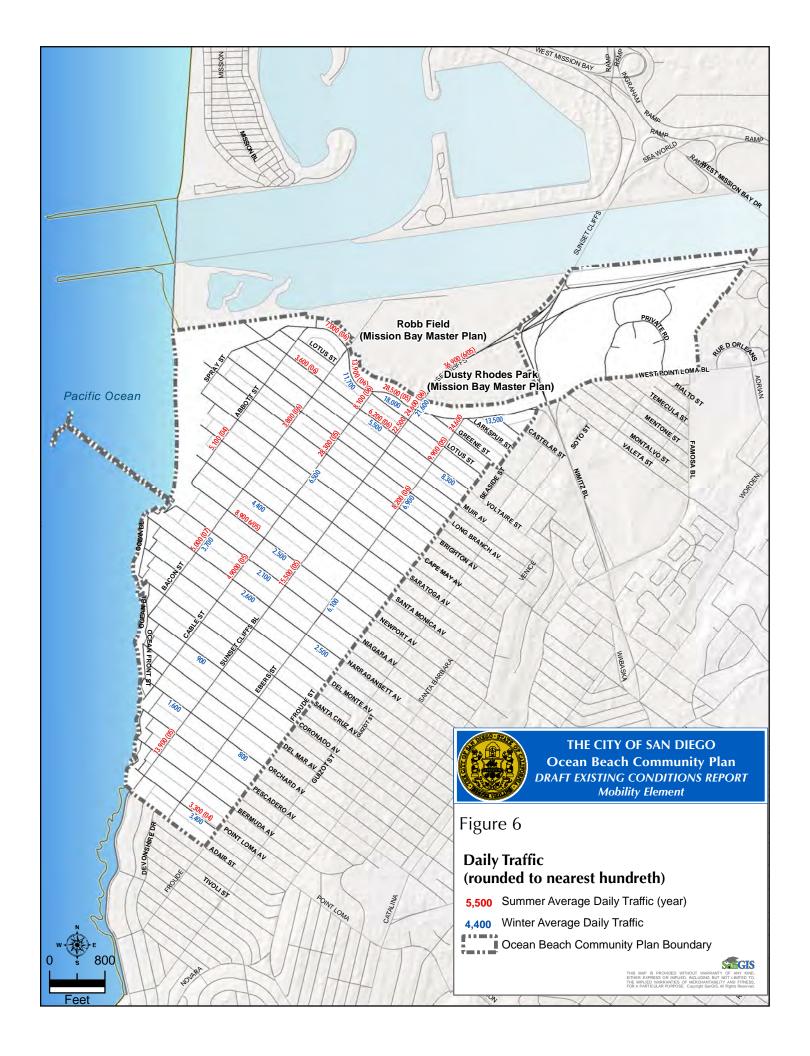
The following sections will briefly describe some of the aspects of the traffic circulation system.

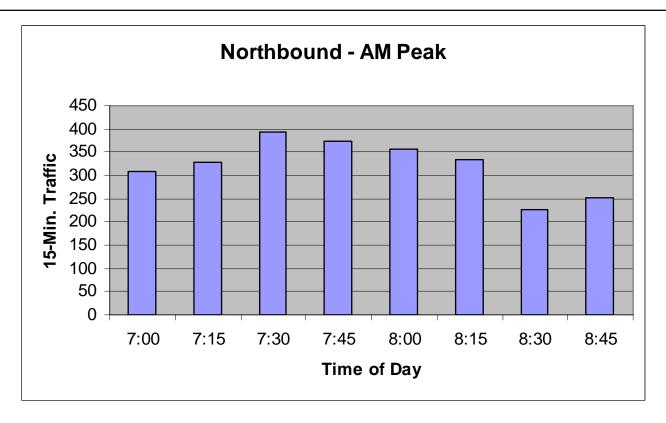
Daily Traffic Volumes

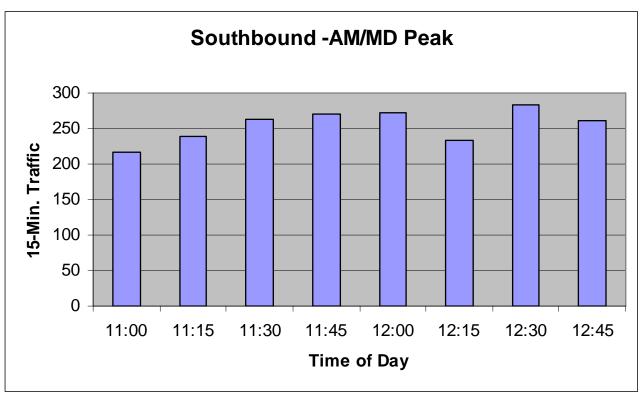
Mechanical traffic counters are used to quantify the number of vehicles that utilize a street segment. Counts are recorded by each direction in 15-minute increments. Due to the seasonal nature of the area, traffic data collection typically takes place in June. To learn about the off-season traffic conditions of the community, traffic counts were made in January of 2008.

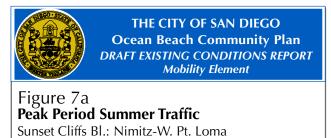
Figure 6 depicts the daily traffic in Ocean Beach. The average daily traffic (ADT) for Winter 2008 is the result of two days of counts made in January. In this figure, summer counts are shown with the respective years that they were made. The traffic counts taken in June of 2005 for Sunset Cliffs Boulevard, between Nimitz Boulevard and West Point Loma Boulevard, indicate that about 18,500 vehicles travel from the community toward I-8, and approximately 18,300 vehicles travel toward Ocean Beach. The morning peak hour towards the freeway system is at 7:30 and the afternoon peak hour towards the community is at 5:45. Figures 7a and 7b detail15-minute traffic counts for morning and afternoon peak periods for both directions of Sunset Cliffs Boulevard, between Nimitz Boulevard and West Point Loma Boulevard. The traffic volumes on Sunset Cliffs Boulevard decrease further south to 15,500, between Newport Avenue and Niagara Avenue, and to 13,900, between Orchard Avenue and Pescadero Avenue.

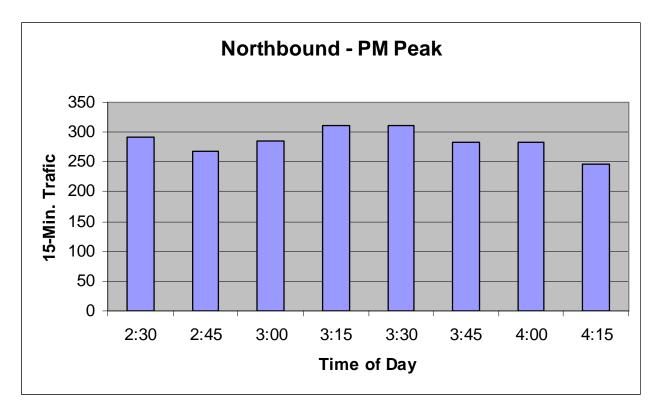
As can be expected, summer counts, especially at the community entrances, around the beach, and at commercial areas, are significantly higher in summer than winter. For example, West Point Loma Boulevard, west of Sunset Cliffs Boulevard, has an ADT of 18,000 in winter and daily traffic of 29,000 in summer. The seasonal difference of 11,000 ADT indicates that this roadway segment is utilized 60% more in summer time than in winter. Figure 8 illustrates the daily traffic volumes for both directions of West Point Loma Boulevard, between Cable Street and Sunset Cliffs Boulevard. This is one of the main gateways to the community. As is shown on the figure, the summer traffic is always more than winter traffic, for both directions. Figures 9a and 9b are a more detailed illustration of the seasonal traffic counts for two peak hours in the

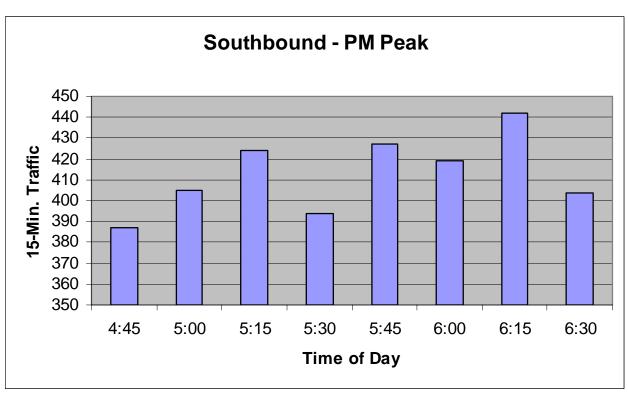






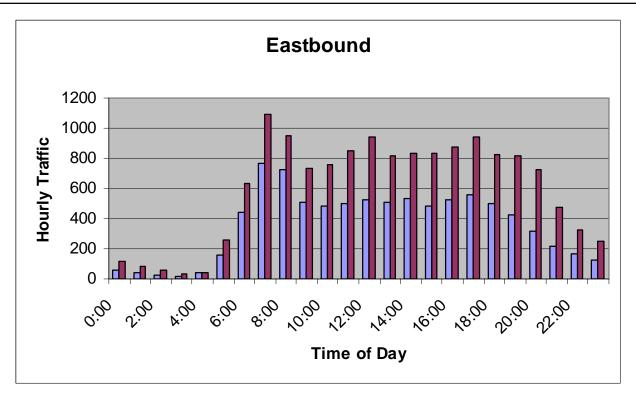


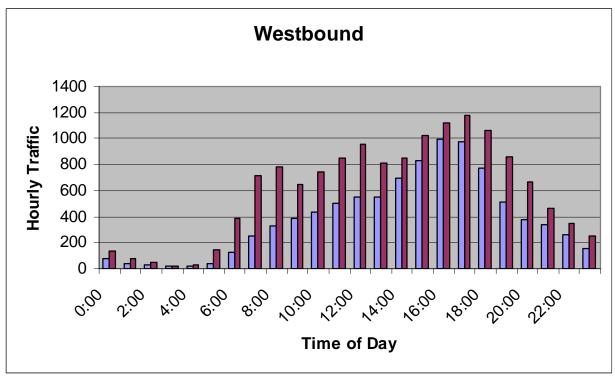




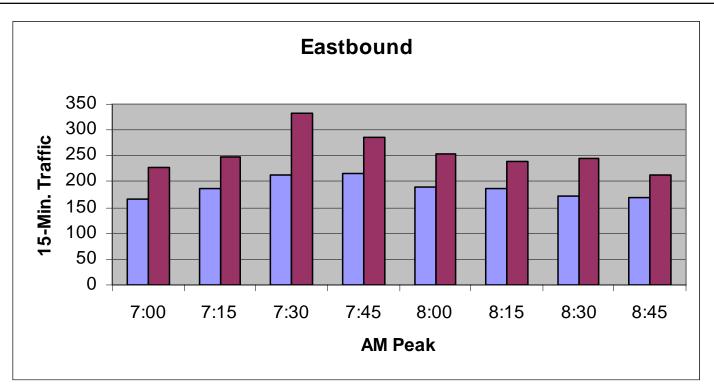


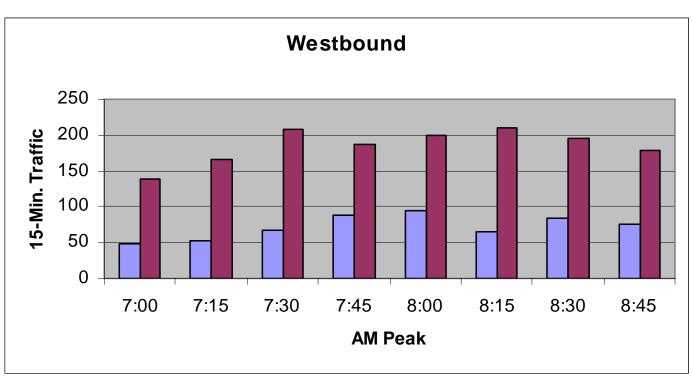
Peak Period Summer TrafficSunset Cliffs Bl.: Nimitz-W. Pt. Loma



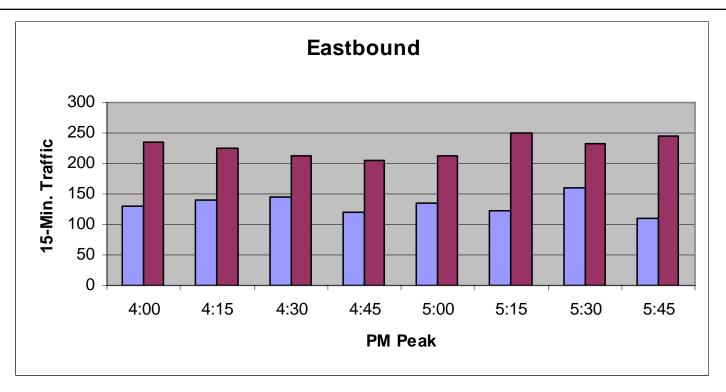


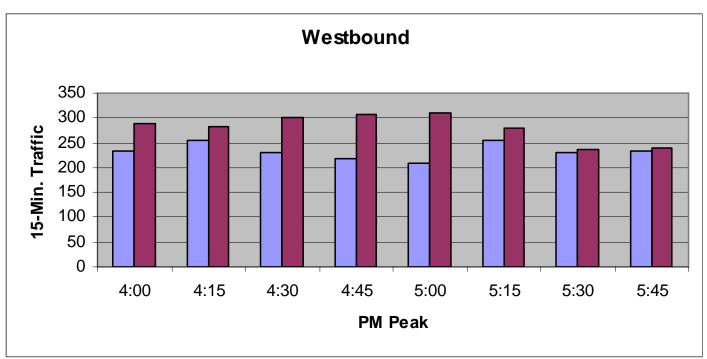














morning and two peak hours in the afternoon, for each direction. Again, all summer traffic volumes are higher than winter in each 15-minutes of counts for both directions.

Winter counts registered traffic volume of less than 800 ADT, for Orchard Avenue, between Froude Street and Ebers Street. This is a predominantly residential area around the southeast segment of the community.

Appendix F includes the daily counts that were taken in the January of 2008. The two-day average of hourly counts are also illustrated. The summer traffic counts are presented in Appendix G, with illustration of hourly counts. As can be seen in the illustrations of traffic volumes, the morning and afternoon peak periods are more spread throughout the day and typical peaks of morning and afternoon hours with significant drops in traffic volumes during off peak periods are not experienced in the area.

Functional Street Classifications

Roadways have different designations, depending on their respective functions. The ascending order of a roadway classification system in a community is from Local Street to Primary Arterial. Freeways are the highest roadway classification that provide regional access to communities. Local Streets provide access to dwelling units. These streets feed into Collector Streets; Collector Streets in turn feed into Major Streets. These streets serve various land uses. Major Streets are typically 4-lane facilities that are divided by painted or raised median. Primary Arterials are next in the classification hierarchy and are at least 4 lanes. Land use access is very limited to and from these roadways that typically connect Major Streets to carry the through traffic at high speed.

Figure 10 illustrates the Functional Street Classifications in Ocean Beach. Because this is an older urbanized area with many narrow roadways, some of the streets are functioning above their desired level of service due to carrying high traffic volumes. As indicated above, a Major Street is typically a 4-lane divided roadway, but 2-lane roadways such as Sunset Cliffs Boulevard, and segments of West Point Loma Boulevard and Voltaire Street are designated as Major Streets due to their function and the traffic volumes that they carry.

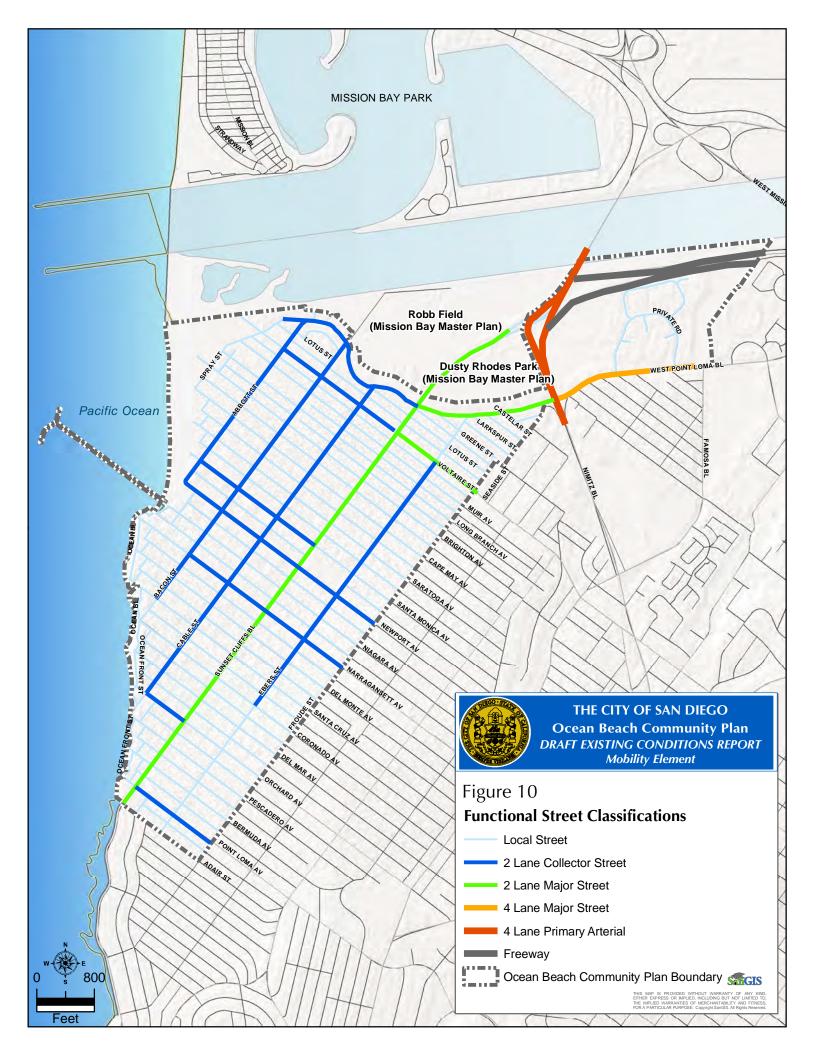
The following is a description of the classified streets in this community. It should be noted that only a segment of a street may be classified, and that the classification may change in different segments. The streets or segments that are not described are Local Streets.

Abbott Street, between Newport Street and West Point Loma Boulevard

This is a 2-Lane Collector Street with northeast-southwest alignment. It is 40' wide and has 60' of right-of way. The segment between Cape May Avenue and Saratoga Avenue registered a daily count of 5,090 in summer of 2004 and 3,400 in winter of 2007.

Bacon Street, between Santa Cruz Avenue and West Point Loma Boulevard

This is a 2-Lane Collector Street with northeast-southwest alignment. It is 40' wide and has 60' of right-of-way between Brighton Avenue and West Point Loma Boulevard, and narrows to 36' south of Brighton Avenue. Right-of-way remains the same. The segment between Brighton Avenue and Long Branch Avenue registered daily traffic counts of 6,500 in summer of 2003,



and 7,810 in summer of 2006. The segment between Narragansett Avenue and Niagara Avenue registered 5,010 vehicles and in 2007, 4,930 vehicles.

Cable Street, between Orchard Avenue and West Point Loma Boulevard

This is a 2-Lane Collector Street with northeast-southwest alignment. It is 40' wide and has 60' of right-of-way between Brighton Avenue and West Point Loma Boulevard, and narrows to 36' south of Brighton Avenue. Right-of-way remains the same. The segment between Narragansett Avenue and Niagara Avenue had a daily traffic of 4,820 in summer of 2005. The segment between Voltaire Street and West Point Loma Boulevard had 6,620 daily traffic in summer of 2003 and 8,020 daily traffic in summer of 2006.

Ebers Street, between Coronado Avenue and Voltaire Street

This is a 2-Lane Collector Street with northeast-southwest alignment. It is 40' wide and has 60' of right-of-way between West Point Loma Boulevard and Brighton Avenue, and narrows to 36' south of Brighton Avenue. Right-of-way remains the same. The segment between Brighton Avenue and Long Branch Avenue registered 8,160 vehicles in summer of 2006 and 6,890 in winter of 2008. The winter of 2008 count between Newport Avenue and Niagara Avenue was 4,100.

Narragansett Avenue, between Bacon Street and Froude Street

This is a 2-Lane Collector Street with northwest-southeast alignment. It is 40' wide and has 80' of right-of-way. The winter 2008 traffic counts between Cable Street and Sunset Cliffs Boulevard showed 2,610, and the segment between Ebers Street and Froude Street showed 2,460 daily traffic.

Newport Avenue, between Abbott Street and Froude Street

This is a 2-Lane Collector Street with northwest-southeast alignment. It is 52' wide and has 80' of right-of-way. The winter 2008 daily traffic counts between Cable Street and Sunset Cliffs Boulevard showed 5,500 vehicles, and the segment between Bacon Street and Cable Street showed 8,670 vehicles utilizing this street.

Orchard Avenue, between Cable Street and Sunset Cliffs Boulevard

This is a 2-Lane Collector Street with northwest-southeast alignment. It is 40' wide and has 80' of right-of-way. The winter 2008 average daily traffic is 760 on this block.

Point Loma Avenue, between Froude Street and Sunset Cliffs Boulevard

This is a 2-Lane Collector Street with northwest-southeast alignment. It is 55' wide and has 80' of right-of-way. The winter 2008 average daily traffic is 3,330 between Ebers Street and Froude Street. The summer count in the same segment is 3,280 vehicles.

Santa Monica Avenue, between Abbott Street and Sunset Cliffs Boulevard

This is a 2-Lane Collector Street with northwest-southeast alignment. It is 40' to 52' wide and has 80' of right-of-way. The winter 2008 average daily traffic between Bacon Street and Cable Street is 4,420. Summer counts have not been taken for this roadway.

Sunset Cliffs Boulevard, between Adair Street and West Point Loma Boulevard

This is a 2-Lane Major Street with northeast-southwest alignment. It is 40' wide and has 60' of right-of-way between Brighton Avenue and West Point Loma Boulevard, and narrows to 36' south of Brighton Avenue. Right-of-way remains the same. The segment between Lotus Street and West Point Loma Boulevard had a daily traffic volume of 24,550 in summer of 2006. The segment between Lotus Street and Voltaire Street had 22,480 daily traffic in summer of 2004. The summer of 2005 had 28,310 daily traffic between Brighton and Long Branch. The daily traffic for summer of 2005 between Newport Avenue and Niagara Avenue was 15,470. The segment between Orchard Avenue and Pescadero Avenue had a daily traffic volume of 13,860 in summer of 2005.

Voltaire Street, between Abbott Street and Froude Street

The segment between Abbott Street and Sunset Cliffs Boulevard is a 2-Lane Collector Street with northwest-southeast alignment, that is 52' wide and has 80' of right-of-way. The segment between Abbott Street and Bacon Street had a traffic count of 3,540 in summer of 2006. Winter count was not taken at this segment. The segment between Cable Street and Sunset Cliffs Boulevard showed 5,430 ADT for winter 2008 and 6,170 for summer of 2006.

The segment between Nimitz Boulevard and Sunset Cliffs Boulevard is a 2-Lane Major Street. It is 52' wide and has 80' of right-of-way. The winter 2008 count registered an average daily traffic of 8,290 between Ebers Street and Froude Street. No summer count is available for this segment.

West Point Loma Boulevard, between Nimitz Boulevard and Spray Street

The segment between Nimitz Boulevard and Sunset Cliffs Boulevard is a 2-Lane Major Street with northeast-southwest alignment. It is 52' wide and has 80' of right-of-way. The winter 2008 counts were made between Castelar Street and Larkspur Street that showed an ADT of 13,420. Summer counts are not available for this segment.

The segment between Spray Street and Sunset Cliffs Boulevard is a 2-Lane Collector Street with varying alignments. It is 52' wide and has 80' of right-of-way. The segment between Bacon Street and Cable Street had an average daily traffic of 11,651. This compares with 13,840 vehicle count in summer of 2004. The winter 2008 count between Cable Street and Sunset Cliffs was 17,940, while 28,480 in summer of 2005.

Street Segment Level of Service (LOS)

Factors such as increases in the area land use intensity have resulted in additional trips in the community that have caused congestion and long delays, especially on routes to and from I-8. The roadway segment level of service (LOS) is a measure of traffic volume relative to the capacity of the roadway. A letter grade from A through F is used to show the congestion of the roadway. Appendix H provides information on roadway classifications and their respective LOS, depending on the traffic volumes they carry. In urbanized areas of the city, such as Ocean Beach, street segments with levels of service E and F are considered congested and undesirable. The only two street segments within the community that operate at undesirable LOS in winter are listed on the next page.

- Sunset Cliffs Boulevard, between Voltaire Street and West point Loma Boulevard
- West Point Loma Boulevard, between Cable Street and Sunset Cliffs Boulevard

Based on the daily traffic volumes that were counted during winter and summer periods, and depending on the Functional Street Classifications, the level of service for various street segments in Ocean Beach was determined. The street segments that perform at level of service F are:

- Cable Street, between Brighton and West Point Loma Boulevard
- Ebers Street, between Narragansett and West Point Loma Boulevard
- Nimitz Boulevard, between Sunset Cliffs Boulevard and West Point Loma Boulevard
- Sunset Cliffs Boulevard, between Pt. Loma Avenue and West Point Loma Boulevard

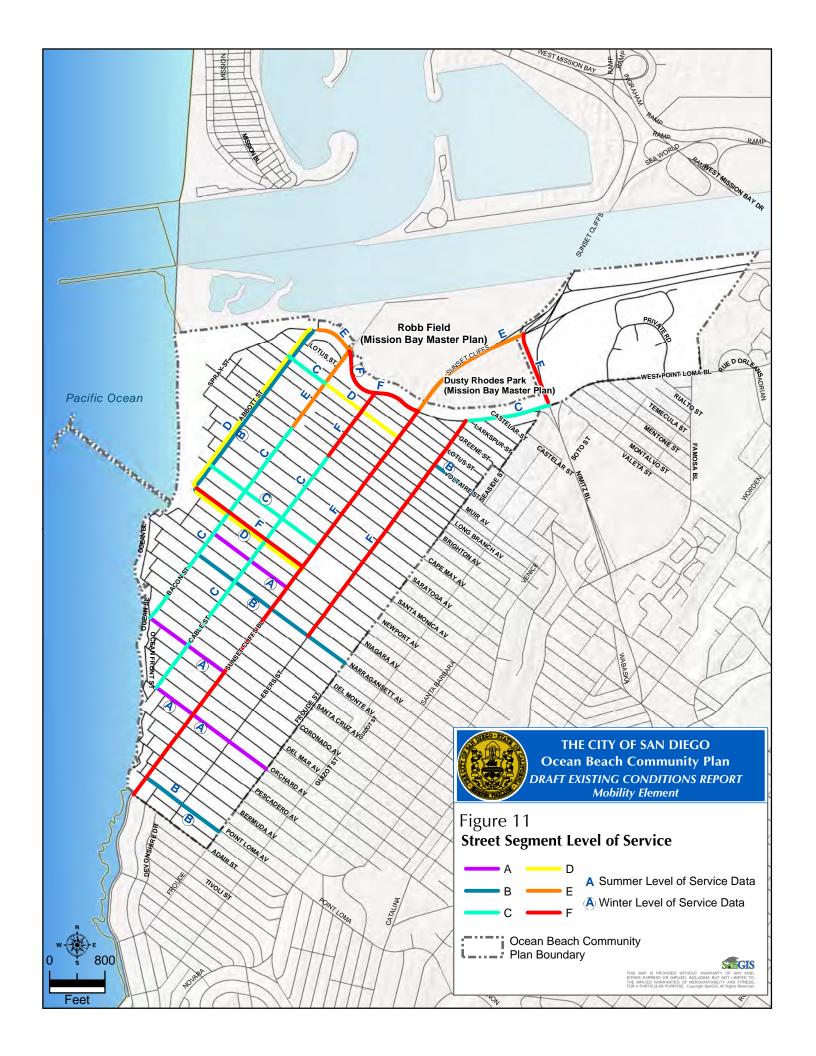
Figure 11 illustrates the Street Segment Level of Service.

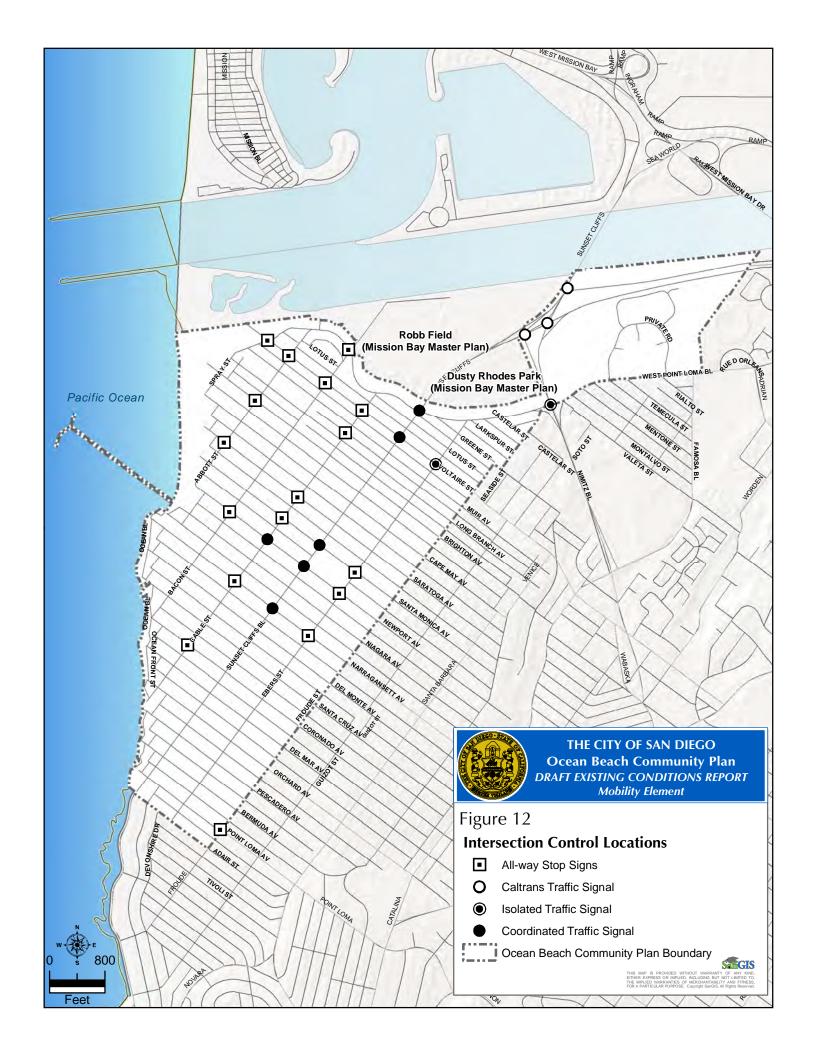
Intersections

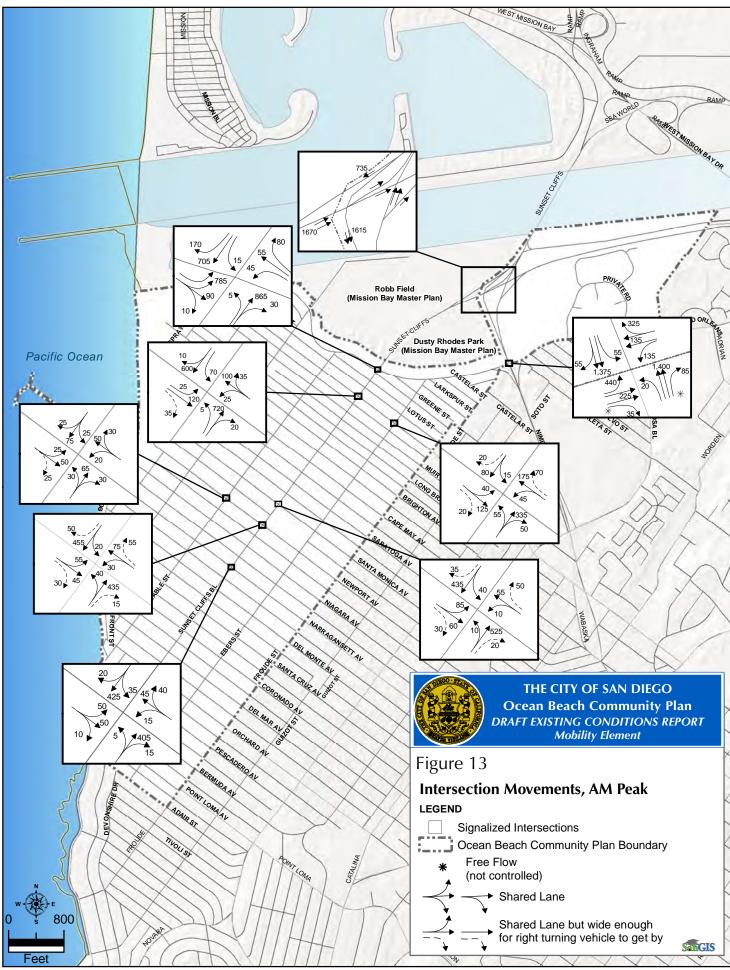
The movement of traffic is regulated at crossings of more heavily traveled roadways. For the streets that carry about the same volume of traffic, all-way stop signs are installed where they cross. Traffic signals are installed at the busiest locations to allow orderly traffic movement. The locations for the all-way stop signs and signalized intersections are shown on Figure 12.

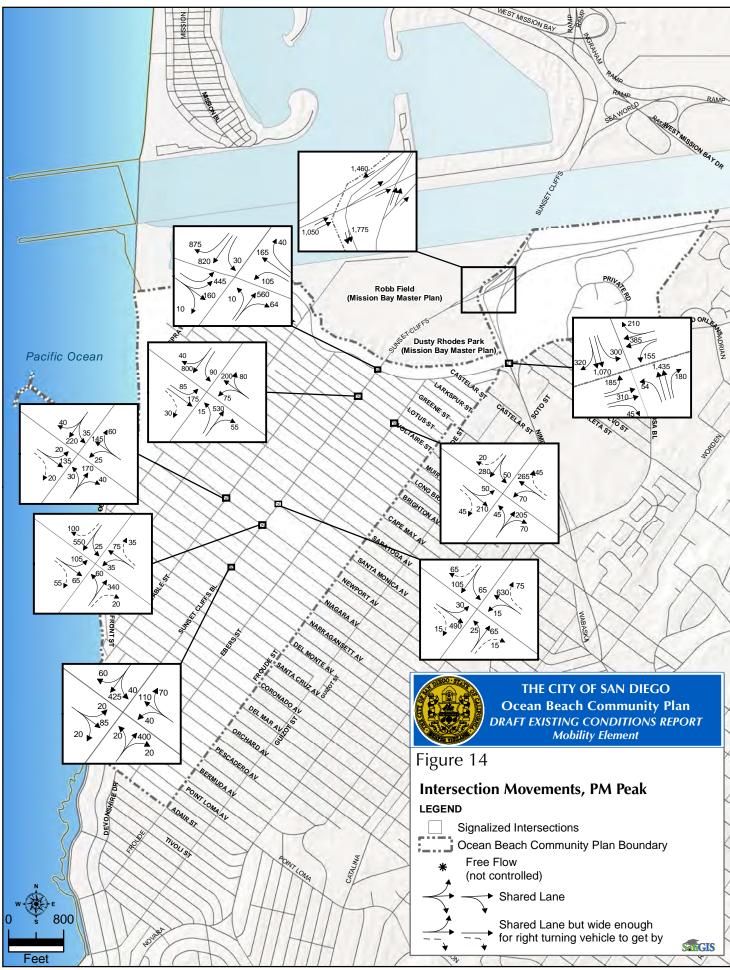
Counts were made in January of 2008 to determine the traffic volume for each through and turning movements at nine signalized intersections within the community and at the I-8 ramps. Turning movement counts were made for morning and afternoon peak periods. Figures 13 and 14 show the lane configurations and traffic movements for each of the counted signalized intersections for the morning and afternoon peak periods. These counts are used to determine the level of service at the intersections. The results of intersection LOS for morning and afternoon peak periods are shown on Figure 15. General description of evaluation criteria that corresponds to various levels of service is provided in Appendix I. For example, if the stopped delay per vehicle is more than 80 seconds, then the intersection is operating at level of service F.

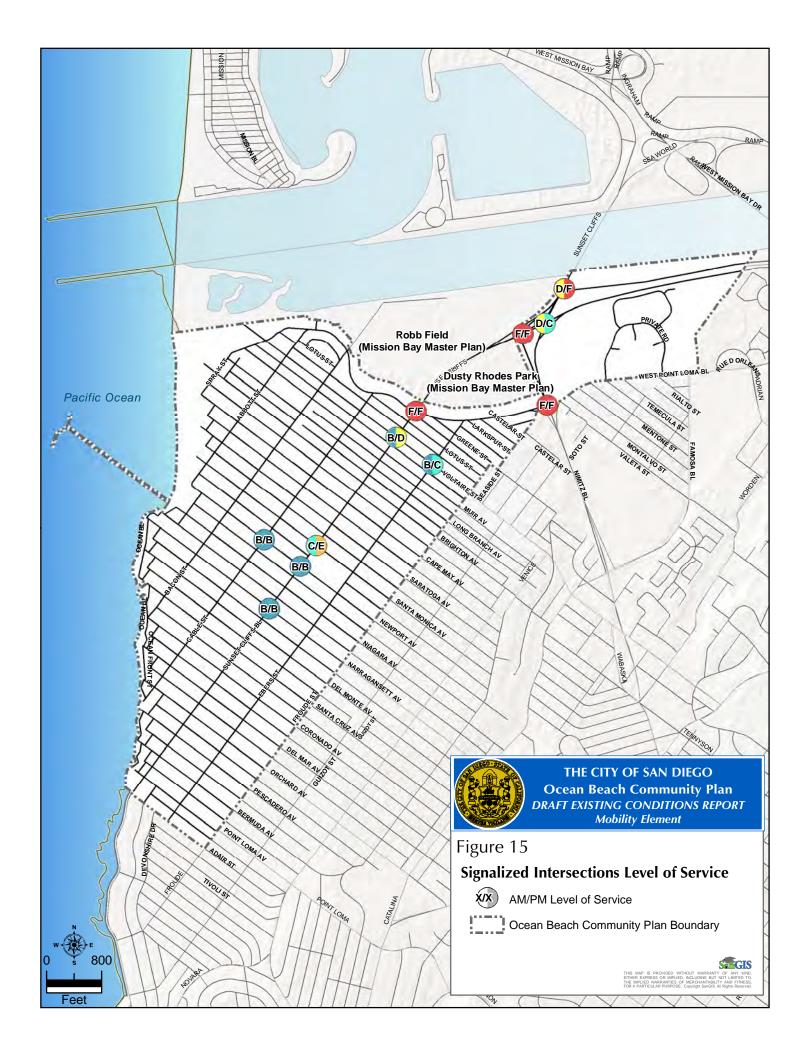
Appendix J provides a summary of intersection LOS for the morning and afternoon peak periods. The table in this appendix also shows the average delay that is experienced by each driver. Appendix K describes delays per each move for the signalized intersections that operate at LOS E or F in the community. This information is used to determine traffic signal timing and propose improvements for the legs of an intersection that perform poorly. Improvements may be in form of adjustment to the allocated green times, and additional lanes where possible. Summer counts are scheduled to be taken in July 2008. The summer level of service will be analyzed and presented in the next update of this report. The manual intersection counts are in Appendix L.











Collisions

The collisions in the community are analyzed based on various factors. A comparison is made for each of the factors between the community and the city-wide average. Appendix M will detail the collision evaluation, after data is analyzed as part of the next update of this report.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Coordinated traffic signals in the community are along Sunset Cliffs Boulevard (see Figure 12). No other ITS technologies have been implemented in the community.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

The nature of employment in Ocean Beach is such that there are not employers with high enough number of employees that would result in preparing and implementing a TDM plan.

BIKEWAY SYSTEM

Ocean Beach is a community where bicycles are used extensively. The flat terrain near the beach areas, the grid type street pattern, the high demand for the limited automobile parking, the short distances between destinations within Ocean Beach, and the connection of Ocean Beach bikeways to the citywide system of bikeways are all factors in bicycle usage in this community. Ocean Beach's bikeway system is composed of Class I, II and III bikeways and is shown on Figure 16. As was indicated in the Public Transit section above, all the buses that serve Ocean Beach are equipped with bicycle racks. This accommodates bikers' regional access. The number of bicyclists who crossed at signalized intersections during peak periods are shown on Figure 17. The following is description of each classification of bicycle facility.

Class I Bicvcle Path

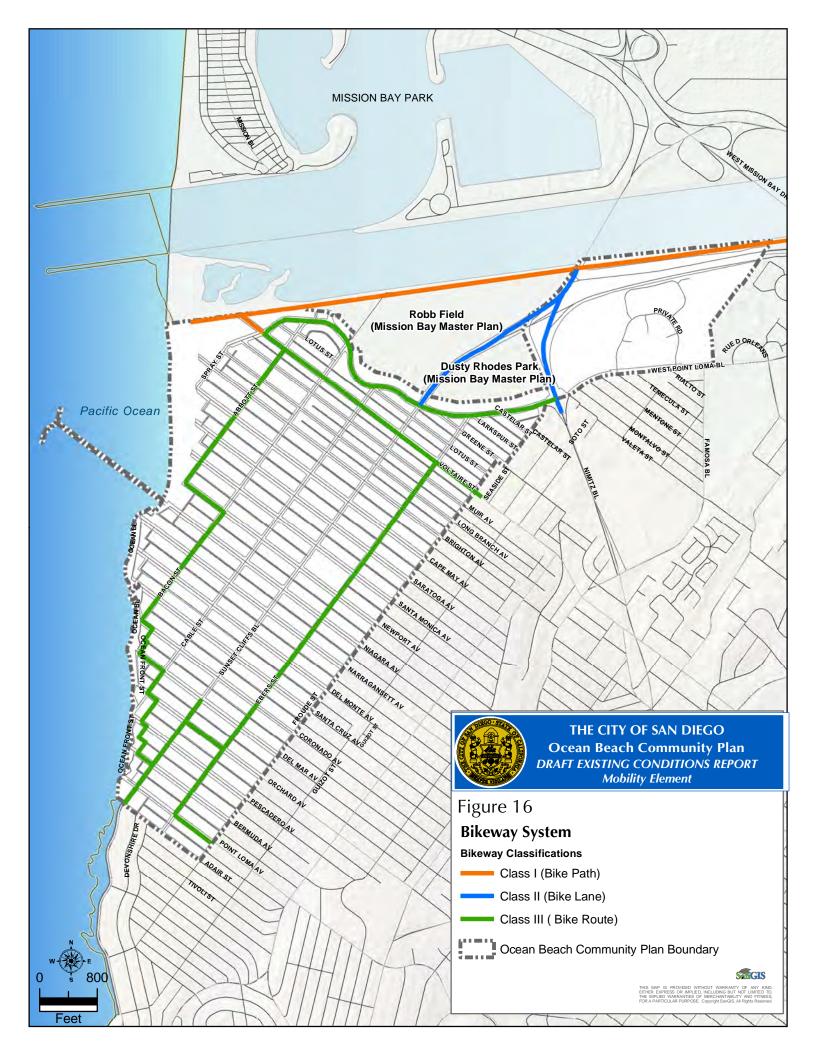
A Class I Bicycle Path is a completely separated right-of-way for the exclusive use of non-motorized vehicles and pedestrians. A Bike Path is provided along the south side of the San Diego River Flood Control Channel, from near the ocean and extending to connect onto the Bicycle Path of Sunset Cliffs Boulevard. Another Class I facility goes along the south side of the San Diego River Channel from Sunset Cliffs Boulevard. eastward for 1.9 miles to Pacific Coast Highway.

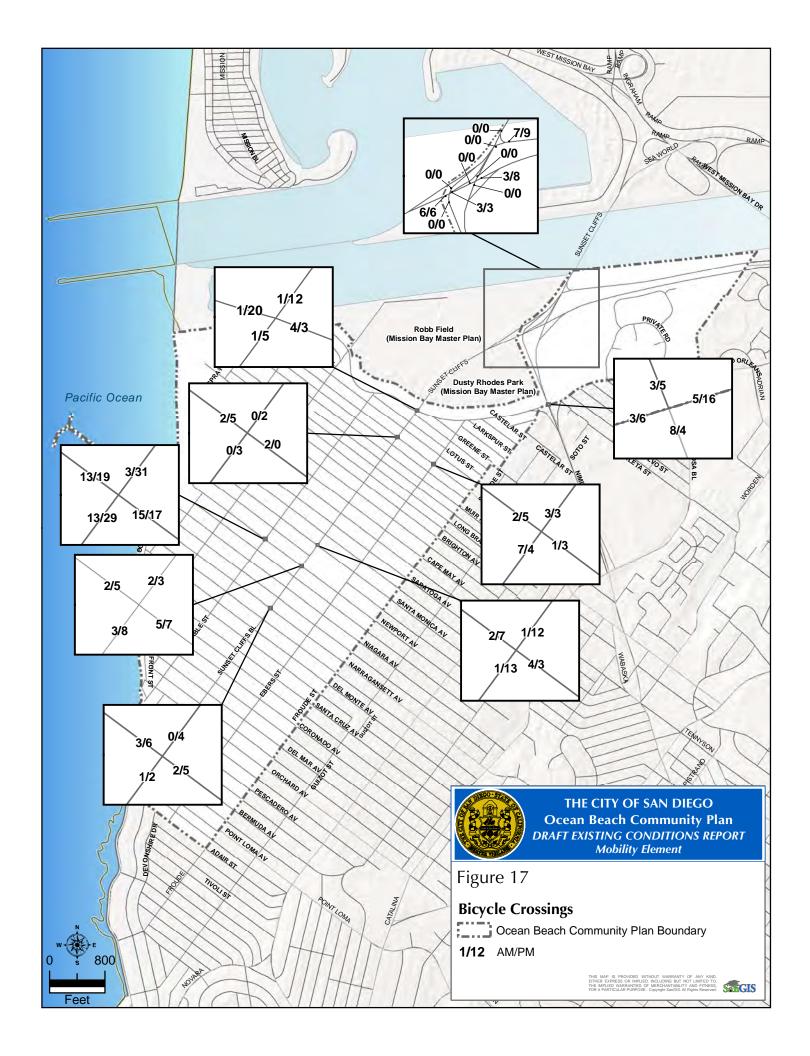
Class II Bicycle Lane

A Class II Bicycle Lane is a painted lane for bicycles, marked between the traffic lane and the curb (if parking is prohibited), or between the traffic lane and parking (if parking is allowed). Special signing is installed to identify this category. Sunset Cliffs Boulevard and Nimitz Boulevard have Bicycle Lanes between Interstate 8 and West Point Loma Boulevard.

Class III Bicycle Route

A Class III Bicycle Route is a non-exclusive street route, shared with vehicles which is designated as a preferred bicycle route and identified with special signing. In the north-south directions, Ebers Street, from Point Loma Avenue to West Point Loma Avenue is the main uninterrupted route. Connectivity to Peninsula is provided via West Point Loma Avenue, which





connects to the Bike Lane on Nimitz Boulevard. On the west side of the community, the Bicycle Route zigzags through short segments of many streets to connect Sunset Cliffs Boulevard to Bacon Street. The main uninterrupted east-west Bicycle Route in the community is on Voltaire Street, between Ebers Street and Spray Street, connecting to the Bike Path south of San Diego River. Portions of Abbot Street, Bacon Street, Cable Street, Ebers Street, Sunset Cliffs Boulevard, and Voltaire Street are examples of roadways which have Bike Routes.

Figure 18 illustrates each of these classes.

Collisions

The bicycle-related collisions in the community are analyzed based on various factors. A comparison is made for each of the factors between the community and the city-wide average. Once complete, Appendix N details the collision evaluation.

Level of Service

A new methodology is developed by Florida Department of Transportation to assess the level of service for bicycle facilities. This methodology will be presented in the next update of this report, to determine the LOS in Ocean Beach.

PARKING

Both on- and off-street parking are in high demand in most areas of Ocean Beach. Much of the development in Ocean Beach took place many years ago when the number of cars and the car ownership ratio were less. Currently, multi-car households create a high demand for the limited available on- and off-street parking. Also, with the conversion of numerous garages to additional rooms in dwelling units, available garage parking spaces are reduced and increased parking burden is placed on the existing on-street supply of parking.

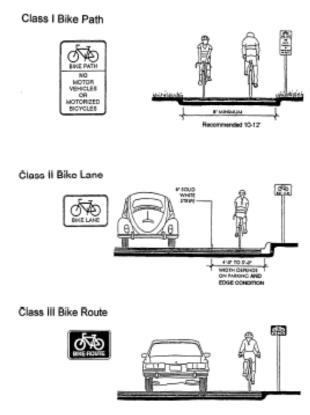
Figure 19 shows a conservative estimate of on-street curb use which includes parking passenger zones and commercial loading zones. Also, three beach oriented City of San Diego off-street parking lots are shown. A greater number of cars may actually park on the streets than shown on the map, depending on the length of the vehicles the distance left between the cars and the placement of the vehicles along the curb.

The only ways to increase the on-street parking supply are to convert some of the on-street spaces to time-limited parking, to remove red painted curb segments, close off driveways, or to install diagonal parking. Most of the streets in Ocean beach are not wide enough to allow the streets to accommodate diagonal parking. Also, there should be at least 100 feet of uninterrupted curb length before a gain can be made from converting parallel spaces to diagonal configuration. All of these alternatives will need to be considered on a block by block basis to determine their suitability for implementation. Community members do not favor paid parking in Ocean Beach. In order to determine what other strategies may be used to address parking management in the community, the Mobility Planning section staff has requested community input to identify and rank three tiers of parking severity in Ocean Beach. Once a consensus is developed, a map will be provided along with suggested recommendations to address each tier.

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

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.

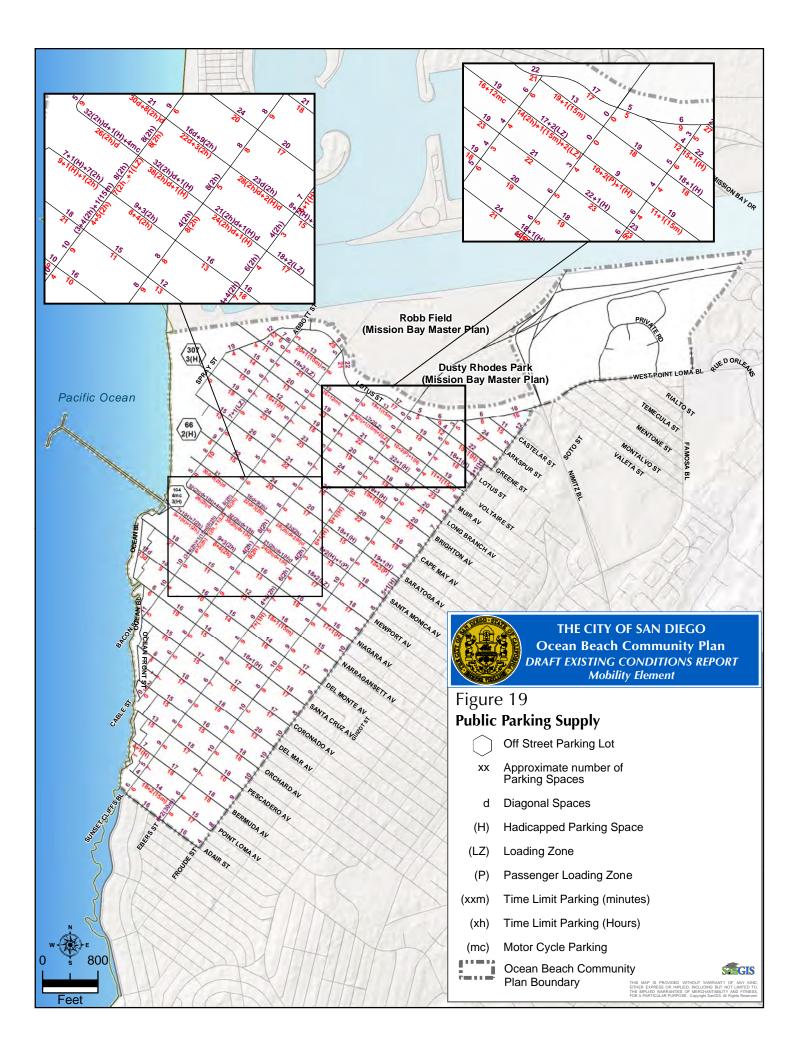
Class III Bike Route – Generally referred to as a bike route, it provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing. This is recommended when there is enough right-of-way for bicyclists and motorists to safely pass.



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).



Figure 18 Bikeway Classifications



AIRPORTS

There is no airport within the community, however, Ocean Beach is located below the take off path of the San Diego International Airport and is impacted by its associated noise.

PASSENGER RAIL

Ocean Beach has no direct access to passenger rail.

GOODS MOVEMENT & FREIGHT

There are no industrial activities that would require raw material delivery to the community or movement of finished goods from it. The community has no truck route. Commercial good movements are limited to local deliveries to businesses.