

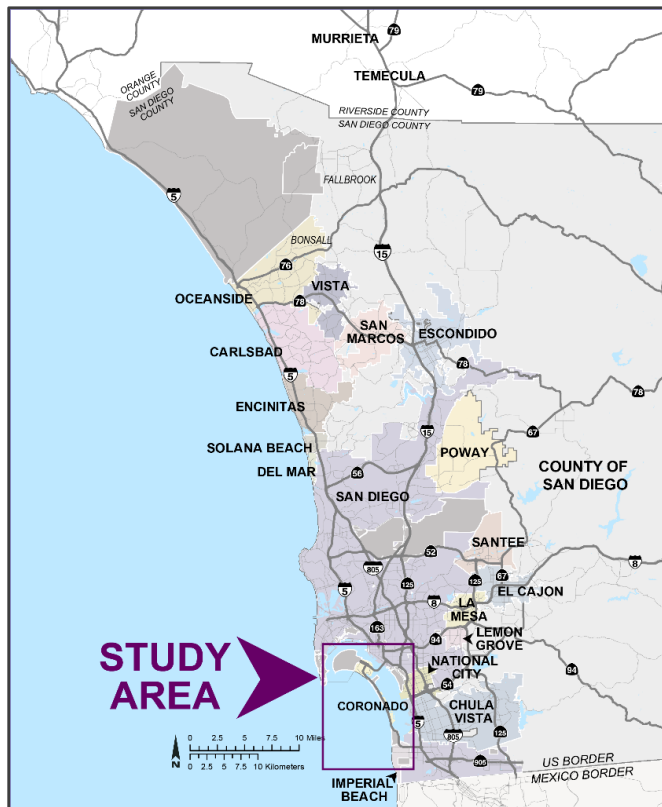


Naval Base Coronado

Naval Base Coronado (NBC) is a hub for U.S. naval activity and provides a shore-based platform for helicopters, aircraft carriers, SEAL Teams, and other ashore and afloat commands. NBC provides access to a comprehensive quantity of ground, sea, air, and undersea operational and training space. NBC is comprised of eight Navy installations (**Table 1**). These eight separate installations encompass more than 57,000 acres and make NBC the largest command in the southwest. A significant number of employees at NBC include engineers and mechanics.

NBC supports more than 30,000 military and civilian personnel who utilize three airfields, three ports, multiple training ranges, and more than 1,400 buildings. NBC accommodates 23 squadrons, two aircraft carriers, four SEAL teams, Coastal Riverine squadrons, and other air, surface, and subsurface commands. The NBC installations in San Diego County are in the southern portion of the county, along Coronado Island (**Figure 1**). For this Report, Naval Air Station North Island Coronado (NASNI), Naval Amphibious Base Coronado (NAB), Silver Strand Training Complex-South Coronado (SSTC), and Naval Outlying Landing Field, Imperial Beach (NOLF) will be the only associated installations analyzed (**Figure 2**).

Figure 1. Naval Base Coronado location in the region



Military Personnel Commuting Patterns

The Navy provides on and off-base government housing options for military and civilian employees. Government housing options include temporary lodging, family housing, unaccompanied (“bachelor”) housing, and public-private venture housing on and off-base. Aircraft carriers and ships also serve as a living option for sailors, although the Department of Defense discourages using ships as a housing option.

The rest of the military and civilian personnel live in one of the 20 off-base Navy affiliated housing areas (**Appendix A**) or in housing options provided within the region or in neighboring counties. There is Lincoln Military Housing on Silver Strand and on NASNI. A majority of commuters to any of the NBC installations reside in the City of San Diego, followed by the City of Chula Vista, and the City of Coronado (**Table 2**).

Table 1. List of installations comprising Naval Base Coronado

Naval Base Coronado Installations:
• Naval Air Station North Island Coronado
• Naval Amphibious Base Coronado
• Naval Outlying Landing Field, Imperial Beach
• Naval Auxiliary Landing Field San Clemente Island
• Silver Strand Training Complex South Coronado
• Camp Michael Monsoor Mountain Warfare Training Center La Posta*
• Camp Morena La Posta*
• Remote Training Site Warner Springs*

Notes: *Installation not discussed in this profile.

MILITARY MULTIMODAL ACCESS STRATEGY

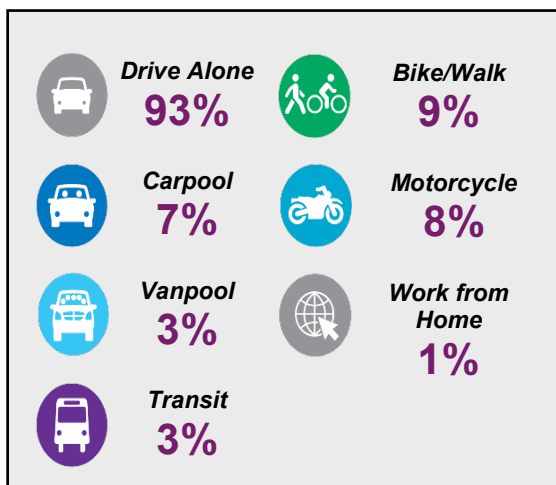


Table 2. Commute origin of Naval Base Coronado

Commute Origin	Percent of Commuters
City of San Diego	47%
South San Diego County	32%
East San Diego County	12%
Riverside County	4%
North San Diego County	3%
Los Angeles County	1%
Other	2%
Total Responses	1784

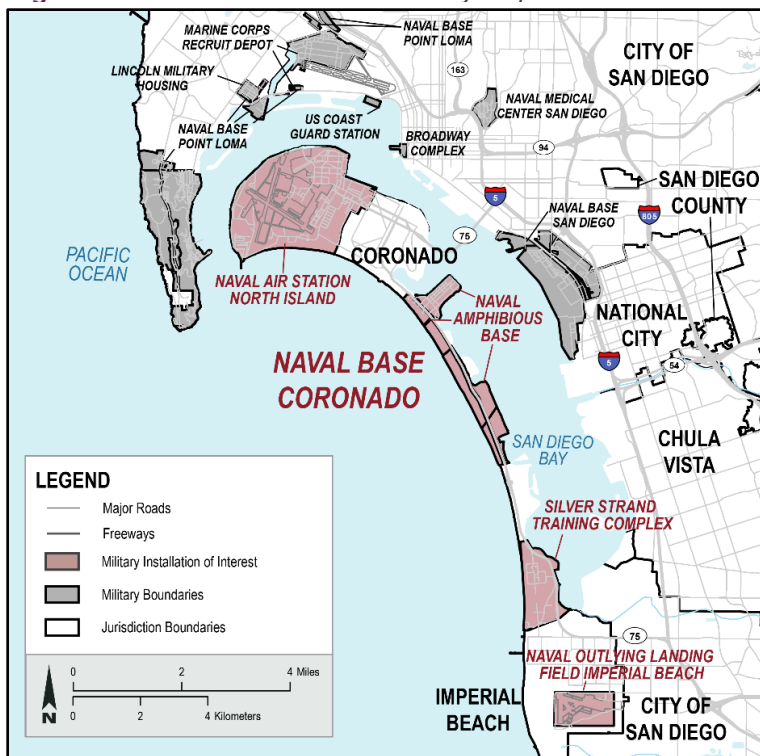
Source: iCommute Survey Results, July 2016
 Notes: *Other includes other California Counties with less than 1%, out of state, and international zip codes.

Figure 3. Commute mode to Naval Base



Source: iCommute Survey Results, July 2016
 Notes: Total of 1774 Survey Responses, with 34 responding other. Other not included in percentages above. Adds to more than 100% to account for multimodal trips.

Figure 2. Naval Base Coronado vicinity map



The primary commute mode for employees to NBC is driving alone. About 86% of military personnel Drive alone for a portion of their trip or their entire trip (Figure 3). Commuters choose to Drive alone due to the need for scheduling flexibility. There are several Park & Ride lots throughout San Diego County where commuters can meet to carpool, vanpool, or access transit services (Appendix B). There are 58 registered iCommute vanpools that commute to NBC.¹ 12% of military personnel for NBC travel a portion of their trip or their entire trip by vanpool. Very few commuters bike, walk, or take transit to work.

I-5 and SR 75 are major routes for NBC commuters. These routes experience heavy congestion particularly in the peak morning and afternoon hours. SR 75 experiences heavy congestion partially from long delays at major intersections with Orange Avenue, and partially from the volume of commute traffic. SR 75 connects the Cities of Imperial Beach and Coronado along the Silver Strand and provides connection to the NBC facilities in Coronado and Imperial Beach.



Mobility Programs

There are several mobility programs throughout the region, and SANDAG iCommute works closely with NBC to encourage alternative commute options. These commute options include carpool, vanpool, bike, transit, telework and shared mobility. The federal Transportation Incentive Program (TIP) and the SANDAG Vanpool Program subsidy allows vanpool and transit users to commute for little to no cost, and iCommute continues to encourage more federal employees to take advantage of these programs. All NBC facilities have vanpool participation and there is an abundance of parking available on base.

Golf carts are allowed to be Driven throughout the City of Coronado, except for SR 75. There is also an electric vehicle charging station on the installation.

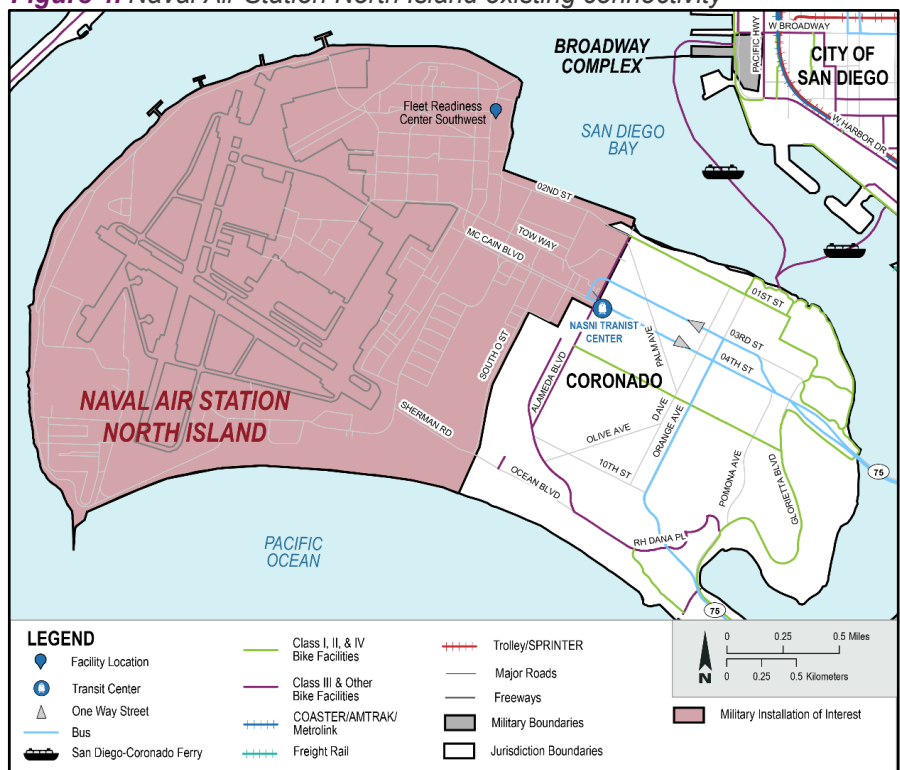
A mobility report card identifying programs and complementing infrastructure projects that support access to NBC has been developed (**Appendix C**). Some programs have policy restrictions or contractual agreements to allow services in a military installation or city; those programs are outlined to the respective jurisdictions in the mobility report card.

Naval Air Station North Island Coronado

Base Overview

Naval Air Station North Island Coronado (NASNI) is a naval air station located on the northern end of Coronado Island. To the east, the installation is bordered by the Pacific Ocean, and to the west and north, it is bordered by the San Diego Bay. To the south, the installation borders the residential areas of the City of Coronado (**Figure 2**).

Figure 4. Naval Air Station North Island existing connectivity



The installation is host to 23 aviation squadrons and 80 tenant commands and activities including the Fleet Readiness Center Southwest (FRCSW) - the Navy's premiere west coast maintenance, repair, and overhaul facility.² The installation has its own police and fire departments and military security stations. It has its own commissary, Navy Exchange, and housing units. There are several large factory-like buildings on base that comprise the Naval Aviation Depot, which is the largest aerospace employer in San Diego and employs approximately 3,300 civilians. This center includes shift work between the hours of 0600 and 1500. NASNI has over 230 aircrafts stationed on its airfield and is homeport to two aircraft carriers. Additionally, the base is home to the Navy's only Deep Submergence Rescue Vehicles. With all the ships in port, the population of NASNI is nearly 35,000 active duty military, military reserves, and civilian personnel.



Existing Connectivity

Freeway/Roadway Network

I-5 and SR 75 are the two major freeways military personnel can use to access NASNI via transit, driving, carpooling, and vanpooling (**Figure 4**). I-5 connects with SR 75 at the San Diego-Coronado Bay Bridge in the City of San Diego and at Palm Avenue in Imperial Beach. SR 75 passes through the City of Coronado at Orange Avenue and extends the length of the Silver Strand, turning into Palm Avenue in Imperial Beach. SR 75 is 13-miles long and is the only Road into and out of Coronado Island. There are no carpool lanes along SR 75 or the portions of I-5 that join to SR 75. Due to the limiting access Roads to NASNI, the City of Coronado Streets experience a significant amount of congestion during morning and evening peak hours.

Transit

MTS Route 901 provides a stop on base at the NASNI Transit Center, located near the Main Gate of NASNI (**Figure 4**). This route has stops in Downtown San Diego, the City of Coronado (including along Silver Strand), the City of Imperial Beach, and the community of Otay Mesa. Military personnel can use MTS Route 901 to connect to MTS Route 904, which travels along Orange Avenue and portions of the Silver Strand to connect people from Coronado City Hall to the Coronado Ferry Landing. MTS Route 901 can also be used to connect to bus routes in Downtown San Diego, Imperial Beach, or Otay Mesa. The City of Coronado subsidizes fares, increased frequencies, and extended hours for MTS Route 904 during the summer.

The Coronado Ferry is a 15-minute ride across the San Diego Bay between Downtown San Diego and the City of Coronado.³ It has three stops in total – the Broadway Pier, Convention Center, and the Coronado Ferry Landing. Commuters ride free during early commuter hours between 5:40 a.m. - 8:50 a.m. and receive a return ticket to use that afternoon. People are allowed to bring their bikes on board the ferry. Additionally, the City of Coronado has “Discover Coronado” shuttles on Orange Avenue from the Ferry Landing to the Hotel Del Coronado which mainly caters to tourists.

NASNI has an internal bus shuttle that connects central locations on base to the NASNI Transit Center, where personnel can transfer to MTS Route 901⁴. This shuttle is available to all military, civilian, and contractor personnel. It provides internal service between the Main Gate, carrier piers, air terminal, hangars, Fleet Readiness Center, and Navy Exchange, and only connects to the activity centers on the east side of the base. The shuttle operates on a continuous loop on weekdays from 5:30 a.m. to 7 a.m. and 2:30 p.m. to 4 p.m.

Active Transportation

NASNI employment areas are scattered throughout the installation, and each hangar is not comfortably within walking distance from the main gate. The City of Coronado is mostly residential with substantial sidewalks and one-way Roads with very low speed limits. The posted speed limits at the main entry and exit gates on 3rd and 4th Streets is 30 mph. Within the City of Coronado, there are Class II bike facilities without buffers along 1st Street, 6th Street, and Glorietta Boulevard. A Class IV separated bicycle facility is provided on the east side of SR 75, known as the Bayshore Bikeway. There are no sidewalks on SR 75 (Silver Strand), but pedestrians frequently use the Bayshore Bikeway along this corridor. The Bayshore Bikeway is a regional corridor that, once completed, will extend 24 miles around San Diego Bay⁵. The Bayshore Bikeway connects the City of Imperial Beach to the City of Coronado via a bike path along the Silver Strand. Bike facilities connect the Coronado Ferry Landing to NASNI. The Main Gate and Gate 2 are the only gates in close proximity to bike facilities.



Gate Access

NASNI has three access gates (Gate 1, Gate 2, and Gate 5). Unlike most other military installations, the majority of employees and civilians employed at NASNI cannot afford to live in the City of Coronado, so a significant number of challenges relate to throughput in and out of NASNI through the City of Coronado Streets.

Gate 1 (Main Gate)

The Gate 1, also known as the Main Gate, is on the south side of NASNI. Vehicles enter the Main Gate via Stockdale Boulevard, which is an extension of Coronado's 3rd Street (Figure 5). There are five inbound lanes that are used for general passenger car inspections and a separate inspection facility for trucks entering NASNI⁶. Vehicles exit Main Gate from McCain Road, which has three outbound lanes and turns into Coronado's 4th Street at Alameda Boulevard. There is also a separate pedestrian entrance located on 4th Street, which is used primarily by transit riders. Pedestrians and people biking are not allowed to enter on 3rd Street. The gate is open 24/7 daily⁷.

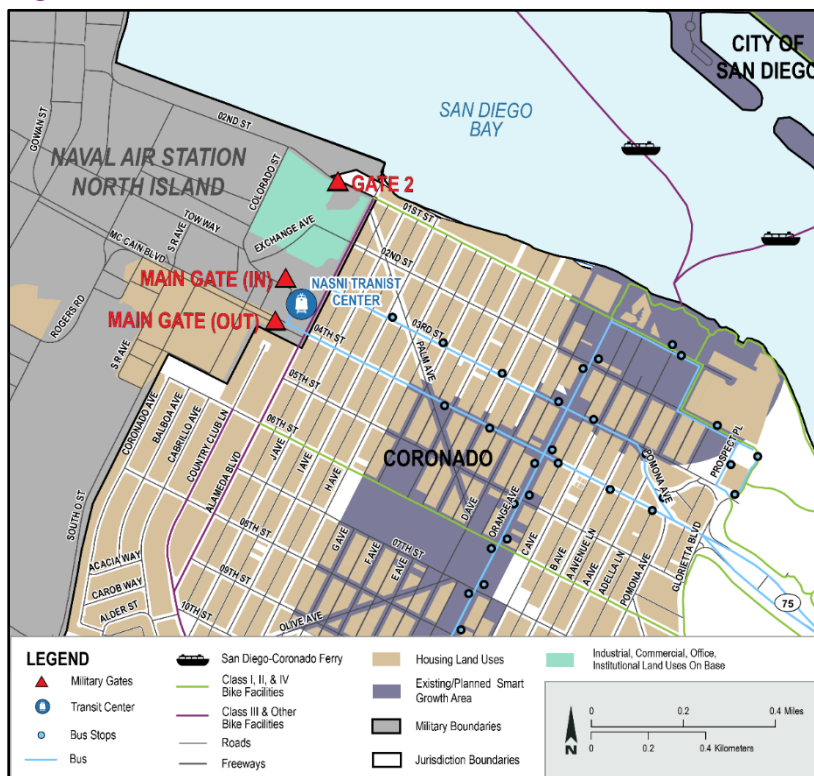
The Main Gate is the closest gate to the visitor center and NBC Headquarters. The Main Gate also provides access to commercial, recreational, and clinic facilities on base. The gate is adjacent to the NASNI Transit Center, providing access to MTS Route 901. From the Main Gate, military personnel can use the internal Road network of NASNI to access other important on-base locations such as training facilities and the NASNI Air Terminal.

Pedestrian entrance and exit facilities at the Main Gate are available. The pedestrian access at the Main Gate is located along McCain Blvd/4th Street. There are signs that inform pedestrians that pedestrians are prohibited on 3rd Street and that they need to enter using 4th Street. However, there are no signs to guide them to the pedestrian facilities for the Main Gate.

During the morning peak period, traffic queues onto 3rd Street and, in extreme conditions, can queue all the way to SR 75 and onto I-5 (Appendix D). Although, there are five inbound lanes open, there are times when some lanes are queued back to the intersection of Alameda Boulevard and 3rd Street while other lanes have relatively small queues. 3rd Street has free flow while traffic on Alameda Boulevard is stop controlled. During the morning peak, vehicles trying to continue south on Alameda Boulevard can have a difficult time finding a gap in 3rd Street traffic to cross the intersection.

During the afternoon peak period, the traffic exiting the base onto 4th Street exceeds the lane capacity creating delays and queues. Queues are regular along 4th Street between NASNI and the San Diego – Coronado Bay Bridge (Appendix D). Exiting traffic queues from Orange Avenue and 4th Street onto the base along McCain Boulevard.

Figure 5. Naval Air Station North Island Main Gate & Gate 2



MILITARY MULTIMODAL ACCESS STRATEGY



Gate 2

Gate 2 is on the south side of NASNI. Gate 2 has two inbound lanes and two outbound lanes (**Figure 5**). Vehicles enter and exit Gate 2 via Quarry Road, which is an extension of Coronado's 1st Street. The gate is open 24/7 and can be accessed by vehicles and pedestrians.⁸ There is also a pedestrian entrance located on the north side of the gate.

Gate 2 provides direct access to the Commissary NEX (military grocery store), Navy Exchange, and other commercial/industrial land uses. From Gate 2, military personnel can use the internal Road network of NASNI to access on-base locations such as training buildings, administrative buildings, and military resources.

Pedestrians are allowed to enter at Gate 2, but it is not clearly dictated where they need to enter. There are no sidewalks on one side of 2nd Street leading up to Gate 2, and the sidewalks on the other side terminate before reaching the gate.

During the morning peak, one of the outbound lanes temporarily becomes a third inbound lane to alleviate traffic queues at Gate 2. Traffic along Alameda Boulevard has a free movement and traffic along 1st Street/Quay Road is stop controlled. During the morning peak, all westbound traffic from 1st Street entering Gate 2 has to stop at the intersection and wait for gaps in the free flow traffic entering the gate from northbound Alameda Boulevard. This causes traffic to back up from the gate to the intersection of 1st Street and E Avenue. In addition, when traffic queues for the Main Gate start backing up beyond military property, people start detouring to get to Gate 2 and often do so by turning down residential Streets and alleys. The City posted signs to restrict these movements during the peak periods, but they are not always effective in preventing vehicles from making those maneuvers.

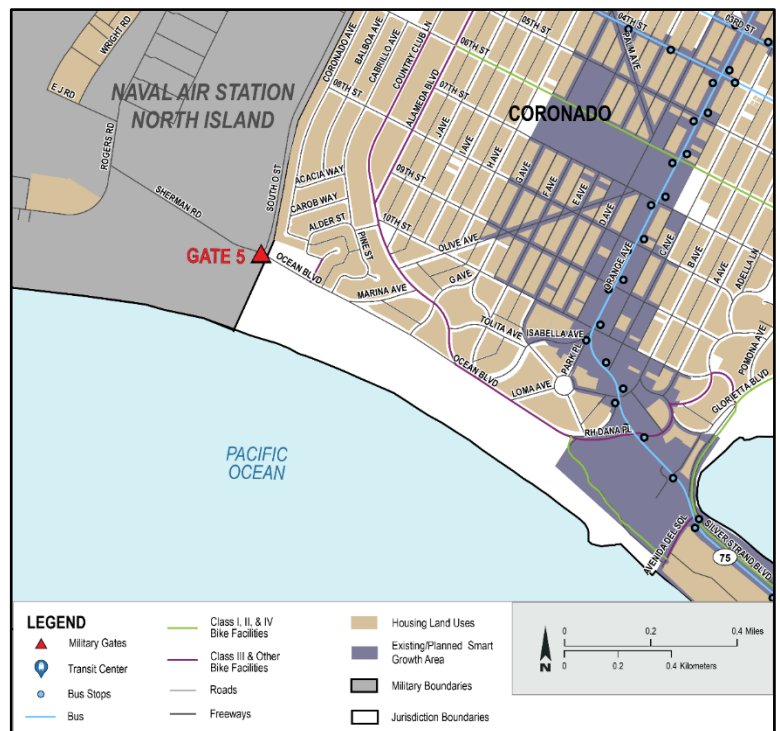
During the afternoon peak period, queues for vehicles exiting the base regularly back up from the intersection of Orange Avenue and 1st Street to the gatehouse. Adjacent Streets are also affected by military personnel leaving Coronado in the afternoon.

Gate 5

Gate 5 is located on the southwest side of NASNI (**Figure 6**). Gate 5 has one inbound lane and one outbound lane. There is a truck storage and inspection area located on the south side of the facility which is used for special deliveries. Vehicles enter and exit Gate 5 via Sherman Road, which has access provided from a Driveway located at the termination of Coronado's Ocean Boulevard. The gate is open 24/7 and can be accessed by vehicles, trucks, pedestrians, and people biking.⁹

Gate 5 provides direct access to Sea 'N Air Golf Course, navy on-base housing, and the NASNI Air Terminal. From Gate 5, military personnel can use the internal Road network of the base to access other on-base resources such as training, administrative, and commercial facilities.

Figure 6. Naval Air Station North Island Gate 5 vicinity map



MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



During the morning peak, there is high traffic volume entering NASNI through Gate 5. In order to accommodate the incoming vehicles, Gate 5 turns the outbound lane to a second inbound lane, making the gate have no outbound lanes. Thus, during the morning peak, the gate becomes an entrance only. If a vehicle is headed outbound or is denied entry and has to exit, the guards have to clear the inbound vehicles out of the outbound lane while the vehicle waits to exit.

During the afternoon hours, vehicles exiting NASNI through Gate 5 get delayed at the intersection of Ocean Boulevard and Ocean Drive either waiting for a gap in traffic to make a left turn or waiting for pedestrians to cross. In addition, there is general confusion at the cul-de-sac with vehicles queued waiting to enter, vehicles exiting freely, vehicles turning around at the end of the Road, and vehicles parking.

Goods Movement

I-5 and SR 75 serve as major freight and goods movement corridors for NASNI and the region. Goods transported to the facility and between the facility and other bases use these corridors. In addition, goods arrive from ships docked at the piers. Trucks are used to move the material from the ships to their final destinations. Goods arriving and leaving the facility are directed to use the Main Gate and Gate 5.

Due to the high volumes of vehicles, SR 75 continues to see high levels of traffic congestion and several intersections operate at a low level of service, especially during peak hours. This congestion not only causes poor access to NASNI, but also impedes trucks trying to access I-5 and leave Coronado Island. Jet fuel and explosives are restricted from being transported across the San Diego – Coronado Bay Bridge. Trucks transporting these types of goods must travel along the Silver Strand and into Imperial Beach to access other freight corridors such as the I-5. Access to I-5 is critical for the flow of goods to and from NASNI.

Naval Amphibious Base

Base Overview

Naval Amphibious Base (NAB) is located in the City of Coronado, south of the main residential and commercial portions of the City (**Figure 2**). To the east and south, the installation is bordered by the San Diego Bay. To the west, the installation is bordered by the Pacific Ocean. The amphibious base includes 5,500 yards of Pacific Ocean and bayside beachfront for training¹⁰. NAB is approximately 1,000 acres in size and is composed of the Main Base, training beaches, California Least Tern preserve, enlisted family housing, and state park. SR 75 separates NAB into ocean and bayside areas.

There are about 381 temporary lodging and bachelor units on NAB that can accommodate up to 2,560 military and civilian employees¹¹. There also are 43 family housing units on NAB^{11 12}. Lincoln Military Housing – Silver Strand is located south of NAB.



Existing Connectivity

Freeway/Roadway Network

Silver Strand Boulevard (SR 75) is the only major corridor that military personnel can use to leave or enter NAB (**Figure 7**). From the northeast, commuters take SR 75 to cross the Coronado Bridge into the City of Coronado onto Orange Avenue to reconnect to SR 75 south. Cars making a left-turn onto Orange Avenue from SR 75 experience a spillover queue onto the bridge. From the South, SR 75 connects to I-5 via SR 75 (Palm Ave) which also experiences significant congestion during the morning and afternoon peak periods. The City of Coronado is implementing adaptive signals technology to improve access onto NAB. NAB is adjacent to the cities of Coronado and Imperial Beach and other major arterials and freeways.

Transit

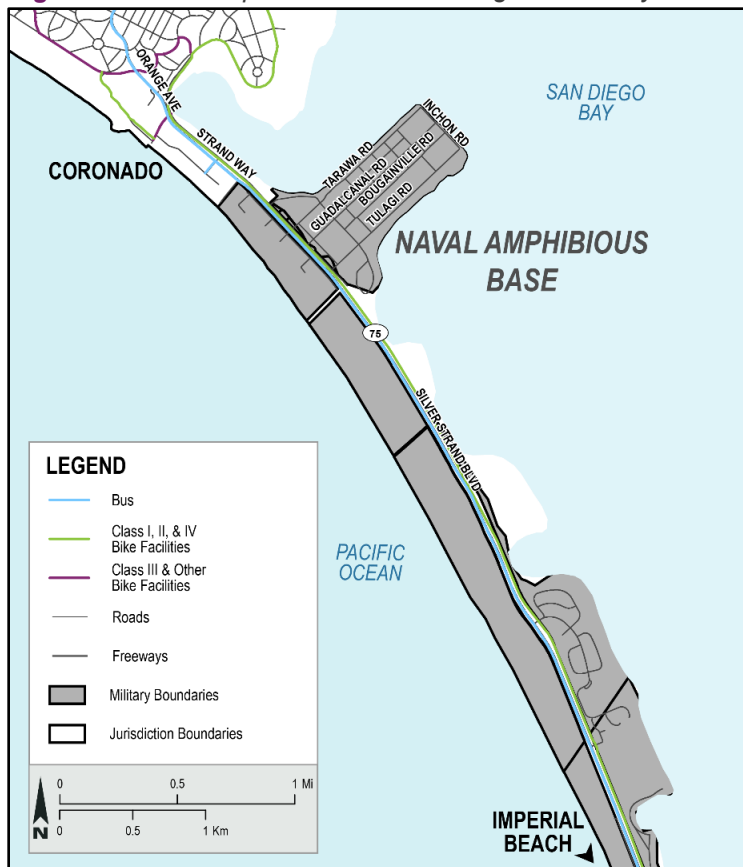
MTS Route 901 is the only bus route that provides transit service to and from NAB (**Figure 7**). This route has a stop outside of Gate 7 and Gate 11 along Silver Strand Boulevard.

There is no internal shuttle on NAB to help military personnel get between the ocean and bayside areas. There also is no shuttle between NAB and NASNI even though there are some trips between installations due to work tasks or military personnel living on one installation and working at the other.

Active Transportation

NAB is a small enough facility for walking or biking to support internal circulation; however, access to this base is very limited. Additionally, there is no bike infrastructure on-base. SR 75 (Silver Strand) has a posted speed limit of 45 mph. A Class IV separated bicycle facility is provided on the east side of SR 75, known as the Bayshore Bikeway. There are no sidewalks on SR 75 (Silver Strand), but pedestrians frequently use the Bayshore Bikeway along this corridor. The Bayshore Bikeway runs along the east side of Silver Strand Boulevard adjacent to the bayside area of NAB (**Figure 7**).

Figure 7. Naval Amphibious Base existing connectivity



MILITARY MULTIMODAL ACCESS STRATEGY



Gate Access

There are four gates to access NAB. The main focus gates for this profile to address commutes are Gate 7 (Bayside Gate) and Gate 11 (Oceanside Gate).

Gate 7 (Bayside Gate)

Gate 7 (Bayside Gate) is located along Guadalcanal Road on the side of the base near the San Diego Bay (Figure 8). Vehicles enter and exit on Guadalcanal Road from the intersection with Strand Way. Strand Way is a short two-lane Roadway that connects with Silver Strand Boulevard (State Route 75) on both ends with signalized intersections. The Bayside Gate provides one inbound lane and two outbound lanes. There is an additional exit for military personnel at the north end of Strand Way at Tarawa Road (Gate 1), which is only open in the afternoon peak. The Bayside Gate is open 24/7 and can be accessed by vehicles and pedestrians.¹³ The Bayside Gate provides a separate truck entrance and inspection area off Tulagi Road from its intersection with Strand Way (Gate 4).

The Bayside Gate is in close proximity to temporary lodging facilities and several parking lots. Using the facility's internal Roadway network allows military personnel to access the piers, Navy Exchange, on-base barracks, swimming pool complex, training facilities, and on base commercial/industrial buildings.

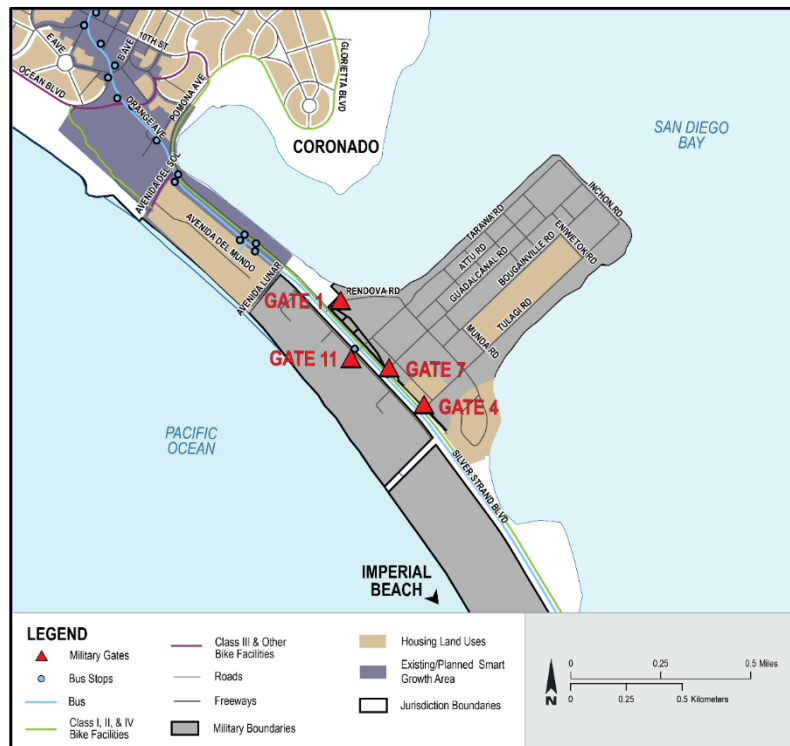
The Bayside Gate experiences heavy congestion during morning commute hours as military personnel enter NAB (Appendix D). Vehicles entering NAB via the Bayside Gate queue along both directions of Strand Way and along the southbound direction of Silver Strand Boulevard. Strand Way and Silver Strand Boulevard sees moderate traffic during afternoon commute hours.

Gate 11 (Oceanside Gate)

Gate 11 (Oceanside Gate) is located along Tawara Blvd near the intersection of Silver Strand Blvd and Tawara Blvd (Figure 8). The Oceanside Gate provides two inbound lanes and two outbound lanes. The gate is open 24/7 and can be accessed by vehicles, pedestrians, and people biking.¹⁴

The Oceanside Gate provides entrance to the ocean area of NAB, west of Silver Strand Blvd, which includes Naval Sea Systems Command Headquarters, retail buildings, parking lots, training facilities, and other Navy related land uses.

Figure 8. Naval Amphibious Base gates vicinity map





During the morning peak period, queues primarily remain on Navy property but occasionally extend onto Silver Strand Boulevard and block the bus stop and pedestrian crosswalk at the intersection (**Appendix D**). Queues extend beyond the Roadway capacity leading to the Oceanside Gate and spill onto Silver Strand Boulevard. Most queues are from the north for vehicles making a southbound right turn. On occasion, the queue for the northbound left turn pocket on Silver Strand Boulevard exceeds its capacity.

During the afternoon, vehicles exiting the base queue beyond the length of Tarawa Road. Queues extend from the signalized intersection of Tarawa Road and Silver Strand Boulevard into the base. This traffic congestion spills into the internal Roadway network of NAB. In general, Tawara Road, the Road leading to the gate for people entering or exiting NAB is very congested during the morning and afternoon peak periods.

Oceanside Gate also has inadequate pedestrian and bike facilities. There are several Driveways that cross the pedestrian path-of-travel along Tawara Road. There also are no crosswalks to cross Tawara Road at any point before or after the gate and no indication of where people biking should enter.

Silver Strand Training Complex

Base Overview

Silver Strand Training Complex (SSTC) is located along the southern end of the City of Coronado, north of the City of Imperial Beach, and west of SR 75 (**Figure 2**). The Pacific Ocean and the San Diego Bay border the facility on its west and east side. SSTC is over 500 acres in size and provides a training environment for the Navy, Marines, and the military's special forces to train for waterborne approaches and critical urban warfare.

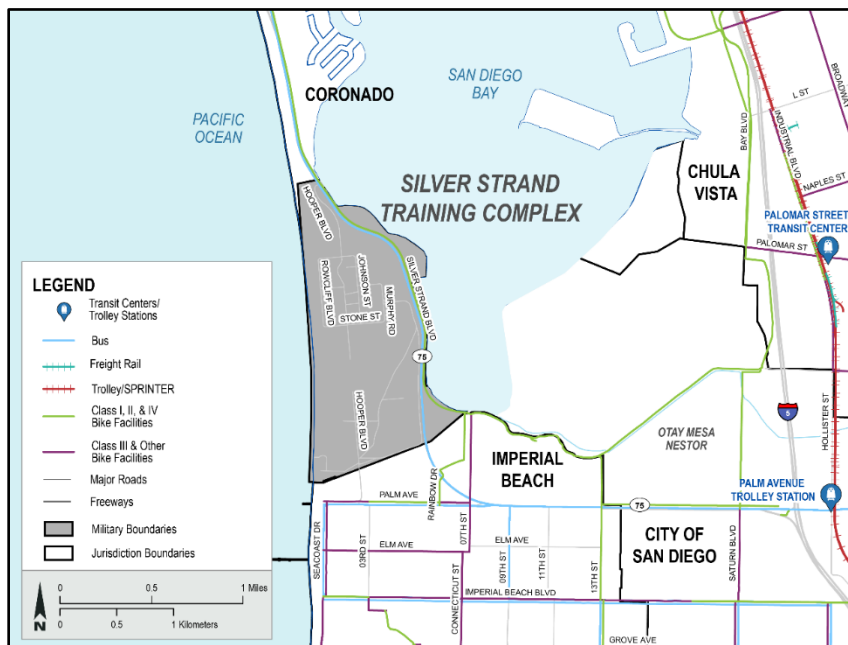
The Navy has plans to expand its Special Warfare Command facilities at SSTC. The expansion, referred to as Naval Base Coronado Coastal Campus, includes over 20 projects and over one million square feet. The expansion will take approximately ten years to complete and over 3,000 military personnel from the Special Warfare Command at the current NAB location will be moved gradually to the Coastal Campus at SSTC.

Existing Connectivity

Freeway/Roadway Network

I-5 and SR 75 are the two major freeways military personnel use to access SSTC (**Figure 9**). Military personnel travelling on I-5 can take the Palm Avenue exit and head west towards SSTC. Palm Avenue is the beginning portion of SR 75 in the south. SR 75 and Palm Avenue become two separate facilities as people head westbound

Figure 9. Silver Strand Training Complex existing connectivity



MILITARY MULTIMODAL ACCESS STRATEGY



and pass 9th Street. SR 75 continues towards the City of Coronado while Palm Avenue continues westbound. Palm Avenue is a major corridor for military personnel to reach the facility's gate.

I-5 and SR 75 are major corridors used for transit, driving, carpool, and vanpool. However, there are no carpool lanes along SR 75 or the portions of the I-5 that join to SR 75.

Transit

The MTS Blue Line Trolley stops at the Palm Avenue Trolley Station, which is over two miles from the base's gate.

MTS Routes 933 and 934 both have a stop that is less than a half-mile from the SSTC Front Gate. MTS Routes 933 and 934 loop around Imperial Beach, travelling along Palm Avenue and Imperial Beach Boulevard. These routes connect to the Iris Avenue Transit Center where there are multiple buses personnel can use to reach other locations in the region.

Active Transportation

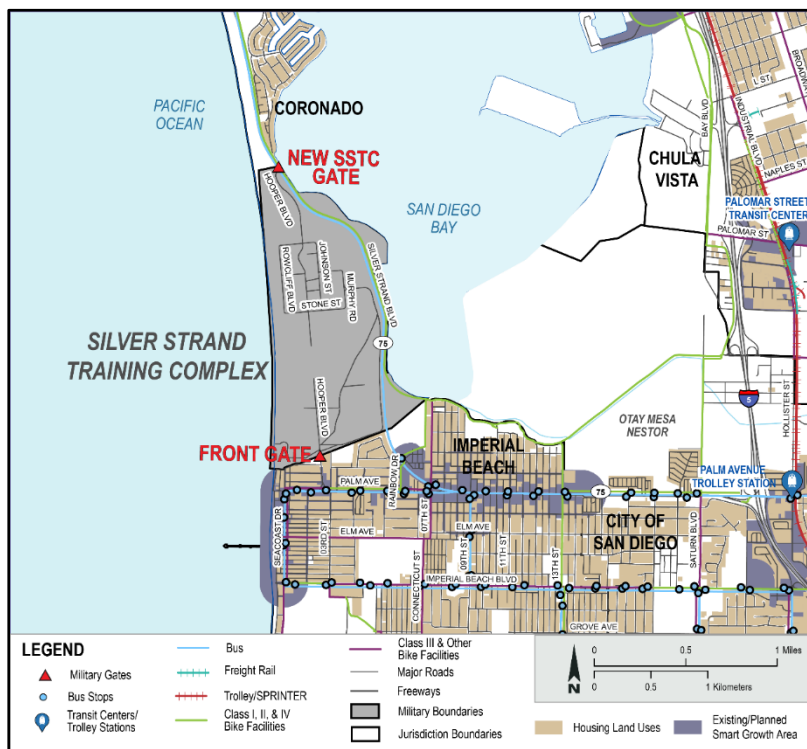
Several bike facilities in the surrounding community help connect SSTC to destinations and other transportation options such as MTS Bus routes and the Blue Line Trolley. SR 75 (Silver Strand) has a posted speed limit of 45 mph. A Class IV separated bicycle facility is provided on the east side of SR 75, known as the Bayshore Bikeway. There are no sidewalks on SR 75 (Silver Strand), but pedestrians frequently use the Bayshore Bikeway along this corridor. The Bayshore Bikeway runs along the east side of Silver Strand Boulevard adjacent to the bayside area of NAB.

There are bike routes (without markings or striping) that share the roadway with motor vehicles on Seacoast Drive, 7th Street, Connecticut Street, and 13th Street. The posted speed limits along these corridors is 25 mph. Military personnel can use these facilities to travel north of the base into the City of Coronado or south into the City of Imperial Beach. There are also west-east bike routes (without markings or striping) that share the Roadway with motor vehicles on portions of Palm Avenue, portions of Elm Avenue, and Imperial Beach Boulevard. A small portion of Palm Avenue includes a Class II bike lane (without a buffer); this street has some traffic calming measures and a posted speed limit of 35 mph.

Gate Access

SSTC has two gates of access. The Front Gate is located on the southside of SSTC along Hooper Boulevard, north of Palm Avenue. This gate is encouraged to have limited access because the spillover queueing affects the adjacent residential neighborhoods. An additional gate was recently built in August 2018 with support from the Defense Access Road Program at the north end of SSTC at Hooper Boulevard along SR 75.

Figure 10. Silver Strand Training Complex gates vicinity map



MILITARY MULTIMODAL ACCESS STRATEGY



Front Gate

The Front Gate is located on the southside of SSTC along Hooper Boulevard, north of Palm Avenue (Figure 10). The gate has one inbound lane and one outbound lane.

The gate provides access to training facilities on base. Upon exiting the gate, military personnel enter the City of Imperial Beach. The area of Imperial Beach adjacent to the gate is primarily residential with pockets of commercial and institutional land uses. The area also has been identified as an existing / planned smart growth opportunity area (Appendix D).

The Roads leading to the gate experience moderate to heavy congestion during peak commute hours (Appendix D). Seacoast Drive, Palm Avenue, and other local Streets leading to the gate experience minimal traffic delays during the morning peak, but heavier congestion during the afternoon peak hours as military personnel leave the base.

New Gate North of SSTC

The Front Gate is located on the northside of SSTC along Hooper Boulevard, north of Palm Avenue (Figure 11) and is the main encouraged point of access from SR 75. This location is just south of Coronado Cays residences on Silver Strand. It is bordered by the San Diego Bay to the east and the Pacific Ocean to the West.

Naval Outlying Landing Field

Base Overview

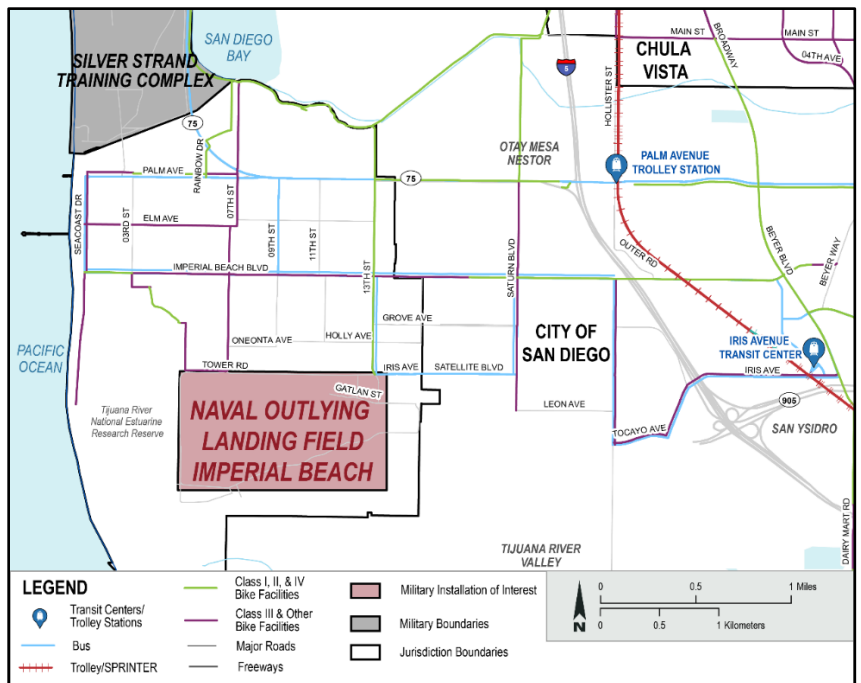
Naval Outlying Landing Field Imperial Beach (NOLF) is located in the City of Imperial Beach, near the U.S.-Mexico border (Figure 2). NOLF is surrounded by the Tijuana River Wildlife Refuge to the west, Tijuana River Valley to the south, the City of San Diego to the east, and the City of Imperial Beach to the north. The Tijuana River Wildlife Refuge and Tijuana River Valley are natural preserves and mostly open land. The City of Imperial Beach and the City of San Diego surrounding NOLF are primarily densely populated residential areas with some commercial and industry space.

NOLF is about 1,204 acres with 270 acres leased for agricultural purposes and 284 acres for wildlife refuge¹⁵. The airfield provides training for the Pacific Fleet helicopter squadrons based at NASNI.¹⁶

It provides a venue within which the Navy helicopter squadrons can train intensely

without interfering with the fixed wing and other helicopter air operations that are part of NASNI's daily activities. In recent years, there have been more than 200,000 takeoffs and landings at NOLF each year. Approximately 900 personnel work on the base, and about 850 of them are civilian employees.

Figure 11. Naval Outlying Landing Field Imperial Beach existing connectivity





Existing Connectivity

Freeway/Roadway Network

SR 75 is a major corridor north of the base that connects to I-5 east of the base (**Figure 11**). SR 75 connects the cities of Imperial Beach and Coronado and Downtown San Diego. There are several Park and Ride lots along I-5 where commuters can meet to carpool, vanpool, or access transit services (**Appendix A**).

Satellite Boulevard and Iris Avenue connect NOLF to areas in the east. 13th Street is an arterial connecting the City of Imperial Beach to the base.

Transit

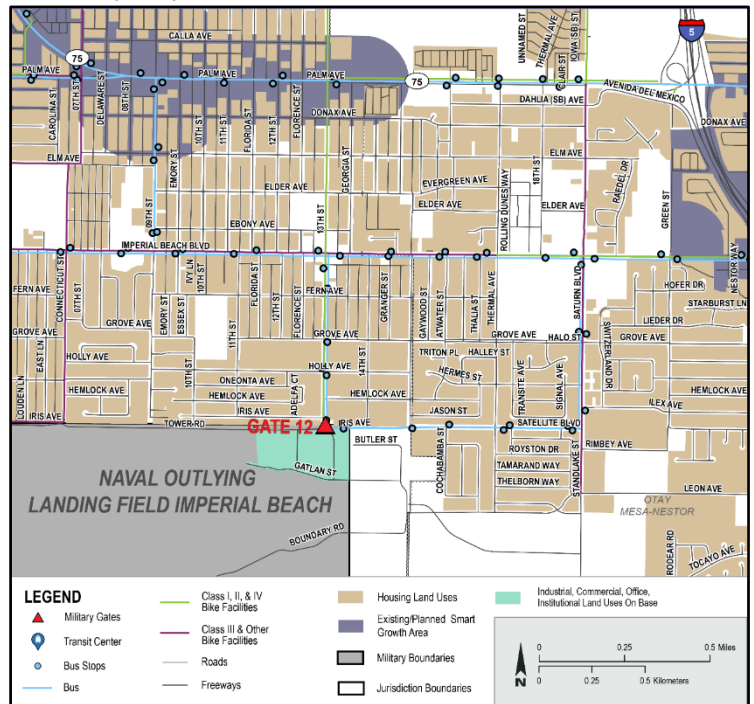
The Blue Line Trolley stops at Iris Avenue Transit Station and Palm Avenue Transit Station, which are over two miles from the base's gate.

MTS Routes 933 and 934 create a loop around the City of Imperial Beach and the portions of the City of San Diego to the east of 13th Street. These routes connect the surrounding residential neighborhoods to NOLF base. There are several stops along Iris Avenue, Satellite Boulevard, and 13th Street that bring passengers close to the base's entrance. MTS Route 901 brings passengers from the cities of Imperial Beach and Coronado, and Downtown San Diego to stops within a couple blocks of the base gate.

Active Transportation

There is a Class II bike lane with a striped buffer on 13th Street which provides direct access to Gate 12. The posted speed limit on this Street is 30 mph. The adjacent community is mostly residential with substantial sidewalks. Additionally, there are bike routes (without markings or striping) that share the Roadway with motor vehicles on Seacoast Drive, 7th Street, Connecticut Street, and 13th Street that help connect NOLF to areas of Imperial Beach. The posted speed limits along these corridors are 25 mph. There are also west-east bike routes (without markings or striping) that share the Roadway with motor vehicles on portions of Palm Avenue, Elm Avenue, and Imperial Beach Boulevard. A small portion of Palm Avenue includes a Class II bike lane (without a buffer); this Street has some traffic calming measures and a posted speed limit of 35 mph.

Figure 12. Naval Outlying Landing Field Imperial Beach Gate 12 vicinity map



Gate Access

NOLF has one access gate (Gate 12).

Gate 12

Gate 12 is located on the north side of NOLF near the intersection of 13th Street and Iris Avenue (**Figure 12**). The gate has two inbound and one outbound lanes. There also is a separate truck entrance and inspection area. The gate provides access to vehicles, trucks, and pedestrians.



The gate provides access to several parking lots, the Imperial Beach Commissary, Imperial Beach Main Navy Exchange, and various other commercial and industrial land uses within the base. Upon leaving the gate, military personnel have access to residential housing and open space parks with some education, commercial, and office buildings.

Traffic is generally very heavy on pay days (usually the 1st and the 15th of the month). The major retail center at NOLF attracts active and retired military personnel and their families that live in the area during these days.

During the morning peak, the pedestrian gate is closed, requiring pedestrians to use the vehicle travel lane to get their credentials checked to enter NOLF. After the morning peak, the pedestrian gate re-opens. Bus stops are located near the gate, but no crosswalks are provided to cross 13th Street or Iris Avenue.

The gate experiences minor to medium congestion traveling west along 13th Street, traveling east on Iris Avenue/Satellite Boulevard and east on Grove Avenue / Halo Street during morning peak commute hours. I-5 and SR 75 experience no congestion at the morning commute hours (**Appendix D**). During the afternoon peak hours, the gate experiences more significant congestion along 13th Avenue and Grove Avenue / Halo Street. SR 75 experiences heavy traffic in the east direction in the afternoon.

Goods Movement

I-5 and SR 75 serve as major freight and goods movement corridors for NOLF and the region. Goods transported to the facility and between the facility and other bases use these corridors. Goods arriving and leaving the facility are directed to use the separate truck lane at Gate 12. However, it has been observed that the truck entrance is often closed, and trucks need to wait for a guard to open it up. This delay sometimes interferes with movement at the intersection.

SR 75 experiences significant traffic congestion and several intersections operate at a low level of service, especially during peak hours. This congestion not only causes poor access to NOLF, but also impedes trucks trying to access the other installations of NBC. Trucks transporting jet fuels and explosives travel along the SR 75 in Imperial Beach to access other freight corridors such as I-5.

Summary of Challenges for Naval Base Coronado

Traffic / Regional Connectivity

- Due to the limited access Roads into NASNI, the City of Coronado Streets experience congestion during the morning and evening peak hours
- SR 75 experiences traffic congestion from both the east (from I-5) and south (from Silver Strand) access corridors during peak hours
- Congestion on I-5 impacts access to SR 75
- SR 75 needs signal upgrades and re-timing
- Gate queueing onto local Streets
- Vehicular traffic to NASNI utilizing local Street network deteriorates pavement conditions
- Congestion on local Streets generated by military and civilian employees commuting to and traveling in between installations of NBC (e.g., NASNI, NAB, NOFL)
- Congestion delays access to NASNI and trucks trying to access I-5 Coronado.
- Resident complaints about traffic noise in early mornings (5 to 6 a.m.)
- Limited traffic calming solutions on 3rd Street and 4th Street while maintaining traffic throughput
- Poor traffic flow at the intersections of 3rd Street and Alameda Avenue, and 4th Street and Alameda Avenue

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



- Gate 5 converts the outbound lane to a second inbound lane during the AM peak which limits vehicle egress
- Vehicles exiting NASNI through Gate 5 are delayed at the intersection of Ocean Boulevard and Ocean Drive due to limited gaps in traffic to make a left turn or waiting for pedestrians to cross.
- The City of Coronado posts signs to restrict detour movements off of 3rd Street and 4th Street during the peak periods, but they are not always effective in preventing vehicles from making the maneuvers without heavy enforcement operations
- Lack of traffic signal synchronization for outbound traffic from NASNI and along Palm Avenue
- The left turn signal on Orange Avenue from SR 75 does provide enough capacity to meet the morning peak demands, which leaves significant queuing onto the SR 75 (Coronado Bridge)
- Imperial Beach is a predominately a residential community with many residents commuting to other cities for employment
- Issues balancing people walking and biking with cars on SR 75 under Caltrans standards
- Traffic and movement of goods occurs between NOLF and NAB/NASNI since some inflatables and large equipment are stored at NOLF
- SR 75 could be impacted by sea level rise
- Navy is planning to grow by 17,000 - 20,000 new military personnel

Mobility

- Most bike facilities are shared with motor vehicles
- No shuttle between NAB and NASNI to accommodate trips between installations due to work tasks or military personnel living on one installation and working at the other
- Local bus delays due to congestion in the City of Coronado during peak periods
- There is a lack of efficient internal circulation options on base
- Low ridership on MTS Route 901 and NASNI internal bus shuttle
- The NASNI internal shuttle only serves trips on the east side of the base
- Those who take MTS Route 901 would prefer to walk rather than taking the internal shuttle
- No shuttle between NAB and NASNI
- No transit access to new SSTC gate
- The main Streets for entry and exit are on 3rd and 4th Street one-way Streets, and there are no priority lanes for alternative commutes (transit or bike)
- Pedestrians and people biking are not allowed to enter on 3rd Street
- Limited bicycle access to gates except the Main Gate and Gate 2
- No wayfinding for pedestrians from 3rd Street to the pedestrian access point at the Main Gate. There are some shared government cars available on base, but not a major program so there is some dependency on personal vehicles.
- The ferry no longer serves NASNI directly
- Vehicles entering NAB via the Bayside Gate queue along both directions of Strand Way and along the southbound direction of Silver Strand Boulevard
- There are no sidewalks on SR 75 (Silver Strand)
- Long commute distance for most employees does not make biking a reasonable option
- No bike infrastructure on-base
- Limited shared government cars available on base
- Limited transit options from north San Diego cities (e.g., Escondido and other cities along I-15)

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Other

- Coordination challenges between the Navy and local jurisdictions
- Limited affordable housing options in nearby communities
- Unpredictable staff schedules limit their ability to utilize schedule-based mobility services like transit and vanpool
- Goods such as jet fuel and explosives must travel along Silver Strand Boulevard as they are not allowed on the San Diego-Coronado Bridge
- Parking restrictions on NASNI are only possible with effective alternative commuting options for access and internal circulation
- Congestion issues are affecting civilian employee retention
- There is only one electric vehicle charger on-base, and it is restricted to charging two cars at a time
- Egress volumes at back gate to NOLF Coastal Campus needs to be maintained

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Relevant Projects & Programs for Naval Base Coronado

Existing Planned Projects & Programs Relevant to Naval Air Station North Island

Existing Planned Projects & Programs Relevant to Naval Air Station North Island (NASNI)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Silver Strand Blvd	Orange Ave to Avenida Las Arenas	Active	Bicycle	Class II bike lanes on southbound Silver Strand Boulevard with enhanced intersection crossings to connect to Silver Strand bike path.	City of Coronado Bike Plan / Bicycle Master Plan (2011)
Alameda Blvd	Ocean Blvd to First St	Active	Bicycle	Class II bike lanes along Alameda Boulevard with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	City of Coronado Bike Plan / Bicycle Master Plan (2011)
H Avenue	Olive Ave to First St	Active	Bicycle	Class II bike lanes along H Avenue with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	City of Coronado Bike Plan / Bicycle Master Plan (2011)
B Avenue	Ynez Place to First St	Active	Bicycle	Class II bike lanes along B Avenue with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	City of Coronado Bike Plan / Bicycle Master Plan (2011)
D Avenue	First St to Tenth St	Active	Bicycle	Class III bike route along D Avenue with Shared Lane Bicycle Markings (Sharrows) and intersection improvements such as enhanced crosswalks at Third and Fourth Street	City of Coronado Bike Plan / Bicycle Master Plan (2011)
Ocean Blvd	NAS North Island to RD Dada Place	Active	Bicycle	Class III bike route with Shared Lane Bicycle Markings (Sharrows)	City of Coronado Bike Plan / Bicycle Master Plan (2011)
Citywide	City of Coronado	Active	Roadway/ Pedestrian/ Bicycle	Wayfinding Sign Plan for Citywide active transportation programs	City of Coronado Capital Improvement Program (CIP) (2016)
Fourth St	East of Orange Ave	Roadway	Traffic	Speed table east of Orange Avenue on Fourth Street	City of Coronado Capital Improvement Program (2016)

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Naval Air Station North Island (NASNI)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Fourth St	At Alameda Blvd	Roadway	Traffic	Traffic signal at intersection (exit to NAS North Island)	City of Coronado Capital Improvement Program (2016)
10th Street	At Alameda Blvd	Roadway	Intersection	Analyze geometric configurations of the irregular intersection of Tenth Street and Alameda Boulevard to determine if the intersection can be reconfigured to enhance pedestrian crossing and calm traffic speeds on Alameda Boulevard.	City of Coronado Capital Improvement Program (2016)
Fourth St	A Ave, C Ave, and Pomona St	Roadway	Intersection	Project includes bulb-outs at Fourth Street at A Avenue, C Avenue and Pomona Street (south side only). In design, set for construction FY 2017.	City of Coronado Capital Improvement Program (2016)
Route 910	Coronado to Downtown San Diego	Transit	<i>Rapid</i>	Connection from Coronado to Downtown San Diego	SANDAG Regional Plan (2015)
Route 639	Otay to North Island	Transit	<i>Rapid</i>	Connection from Otay Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	SANDAG Regional Plan (2015)

C= Conventional Highway
F= Freeway

ML = Managed Lanes
T = Toll Road

R = Reversible Lanes
OPS = Operational Improvements

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Naval Amphibious Base

Existing Planned Projects & Programs Relevant to Naval Amphibious Base (NAB)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
13th Ave	Bayshore Bike path to Tower Road/Iris Ave	Active	Bicycle	Class II Bike lanes connecting the Bayshore Bikeway to the Imperial Beach airbase	Imperial Beach Capital Improvement Program (CIP) (2016)
Silver Strand Blvd	Orange Ave to Avenida Las Arenas	Active	Bicycle	Class II bike lanes on southbound Silver Strand Boulevard with enhanced intersection crossings to connect to Silver Strand bike path.	City of Coronado Bike Plan / Bicycle Master Plan (2011)
I-5	San Ysidro to Downtown San Diego	Active	Pedestrian	Add Pedestrian Over Crossing (POC) Americans with Disabilities Act (ADA) upgrades	Caltrans District System Management Plan (DSMP) (2016)
Multiple (Palm Ave, Elm Ave, Iris Ave)	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection	SANDAG Regional Plan (2015)
–	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection (Border Access)	SANDAG Regional Plan (2015)
–	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection (Imperial Beach Connector)	SANDAG Regional Plan (2015)
Silver Strand Bike Path	Tarawa Road	Active	Bicycle	Bicycle signals	City of Coronado Bike Plan / Bicycle Master Plan (2011)
I-805	SR-905 to Palomar St	Freeway	Lanes	Add two managed lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
I-5	SR-905 to SR-54	Freeway	Lanes	Add 2 Managed Lanes to 8 Freeway Lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
Route 510	Mira Mesa to Border	Transit	Trolley	Blue Line Rail Grade Separation	SANDAG Regional Plan (2015)

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Naval Amphibious Base (NAB)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Route 639	Otay to North Island	Transit	<i>Rapid</i>	Connection from Otay Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	SANDAG Regional Plan (2015)
Route 510	Palomar St to 12th & Imperial	Transit	Trolley	Phase I - Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St Palomar St, and Blue/Orange Track Connection at 12th/Imperial	SANDAG Regional Plan (2015)
Route 562	San Ysidro to Kearny Mesa	Transit	Trolley	Phase I - Connection from San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/4th Ave, National City Southeast San Diego, Mid-City, and Mission Valley	SANDAG Regional Plan (2015)
Routes 640A/640B	San Ysidro to Palomar	Transit	<i>Rapid</i>	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	SANDAG Regional Plan (2015)
Route 510	University City to Downtown San Diego	Transit	Trolley	Blue line extension to University City providing public transportation in coastal San Diego County. Increased frequencies and front door access to Naval Base San Diego at 32nd St	SANDAG Regional Plan (2015)
Route 561	UTC to COASTER Connection	Transit	Trolley	UTC COASTER Connection (extension of Route 510)	SANDAG Regional Plan (2015)
Route 540	UTC to San Ysidro via downtown	Transit	Trolley	Blue Line Express – UTC to San Ysidro via downtown	SANDAG Regional Plan (2015)

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MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Silver Strand Training Complex

Existing Planned Projects & Programs Relevant to Silver Strand Training Complex (SSTC)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Multiple (Palm Ave, Elm Ave, Iris Ave)	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection	SANDAG Regional Plan (2015)
-	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection (Border Access)	SANDAG Regional Plan (2015)
-	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection (Imperial Beach Connector)	SANDAG Regional Plan (2015)
13th Avenue	Bayshore Bike path to Tower Road/Iris Ave	Active	Bicycle	Class II Bike lanes connecting the Bayshore Bikeway to the Imperial Beach airbase	Imperial Beach Capital Improvement Program (CIP) (2016)
I-5	San Ysidro to Downtown San Diego	Active	Pedestrian	Add Pedestrian Over Crossing (POC) Americans with Disabilities Act (ADA) upgrades	Caltrans District System Management Plan (DSMP) (2016)
I-805	SR-905 to Palomar St	Freeway	Lanes	Add two managed lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
I-5	SR-905 to SR-54	Freeway	Lanes	Add 2 Managed Lanes to 8 Freeway Lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
Route 639	Otay to North Island	Transit	<i>Rapid</i>	Connection from Otay Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	SANDAG Regional Plan (2015)
Routes 640A/640B	San Ysidro to Palomar	Transit	<i>Rapid</i>	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	SANDAG Regional Plan (2015)

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Silver Strand Training Complex (SSTC)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Route 510	Palomar St to 12th & Imperial	Transit	Trolley	Phase I - Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St Palomar St, and Blue/Orange Track Connection at 12th/Imperial	SANDAG Regional Plan (2015)
Route 562	San Ysidro to Kearny Mesa	Transit	Trolley	Phase I - Connection from San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/4th Ave, National City Southeast San Diego, Mid-City, and Mission Valley	SANDAG Regional Plan (2015)
Route 510	University City to Downtown San Diego	Transit	Trolley	Blue line extension to University City providing public transportation in coastal San Diego County. Increased frequencies and front door access to Naval Base San Diego at 32nd St	SANDAG Regional Plan (2015)
Route 561	UTC to COASTER Connection	Transit	Trolley	UTC COASTER Connection (extension of Route 510)	SANDAG Regional Plan (2015)
Route 510	Mira Mesa to Border	Transit	Trolley	Blue Line Rail Grade Separation	SANDAG Regional Plan (2015)
Route 540	UTC to San Ysidro via downtown	Transit	Trolley	Blue Line Express – UTC to San Ysidro via downtown	SANDAG Regional Plan (2015)

C= Conventional Highway
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OPS = Operational Improvements

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Naval Outlying Landing Field Imperial Beach

Existing Planned Projects & Programs Relevant to Naval Outlying Landing Field Imperial Beach (NOLF)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
-	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection	SANDAG Regional Plan (2015)
-	San Ysidro to Imperial Beach	Active	Bicycle	Bayshore Bikeway Connection (Imperial Beach Connector)	SANDAG Regional Plan (2015)
13th Ave	Bayshore Bike path to Tower Road/Iris Ave	Active	Bicycle	Class II Bike lanes connecting the Bayshore Bikeway to the Imperial Beach airbase	Imperial Beach Capital Improvement Program (CIP) (2016)
I-5	San Ysidro to Downtown San Diego	Active	Pedestrian	Add Pedestrian Over Crossing (POC) Americans with Disabilities Act (ADA) upgrades	Caltrans District System Management Plan (DSMP) (2016)
I-805	SR-905 to Palomar St	Freeway	Lanes	Add two managed lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
I-5	SR-905 to SR-54	Freeway	Lanes	Add 2 Managed Lanes to 8 Freeway Lanes (8F to 8F + 2ML)	SANDAG Regional Plan (2015)
Route 639	Otay to North Island	Transit	<i>Rapid</i>	Connection from Otay Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	SANDAG Regional Plan (2015)
Routes 640A/640B	San Ysidro to Palomar	Transit	<i>Rapid</i>	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa va Chula Vista, National City and City College	SANDAG Regional Plan (2015)
Route 510	Palomar St to 12th & Imperial	Transit	Trolley	Phase I - Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St Palomar St, and Blue/Orange Track Connection at 12th/Imperial	SANDAG Regional Plan (2015)

MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Existing Planned Projects & Programs Relevant to Naval Outlying Landing Field Imperial Beach (NOLF)					
Facility	Project Extents	Improvement Type	Subcategory	Project Improvement	Source
Route 562	San Ysidro to Kearny Mesa	Transit	Trolley	Phase I - Connection from San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/ 4th Ave, National City Southeast San Diego, Mid-City, and Mission Valley	SANDAG Regional Plan (2015)
Route 510	University City to Downtown San Diego	Transit	Trolley	Blue line extension to University City providing public transportation in coastal San Diego County. Increased frequencies and front door access to Naval Base San Diego at 32nd St.	SANDAG Regional Plan (2015)
Route 561	UTC to COASTER Connection	Transit	Trolley	UTC COASTER Connection (extension of Route 510)	SANDAG Regional Plan (2015)
Route 510	Mira Mesa to Border	Transit	Trolley	Blue Line Rail Grade Separation	SANDAG Regional Plan (2015)
Route 540	UTC to San Ysidro via downtown	Transit	Trolley	Blue Line Express – UTC to San Ysidro via downtown	SANDAG Regional Plan (2015)

C= Conventional Highway
F= Freeway

ML = Managed Lanes
T = Toll Road

R = Reversible Lanes
OPS = Operational Improvements



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Appendices

- Appendix A.** Navy Affiliated Housing Areas
- Appendix B.** iCommute Park & Ride Map
- Appendix C.** NBC Mobility Report Card
- Appendix D.** Google Traffic Maps



MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Appendix A. Navy Affiliated Housing Areas

This map cannot be used for legal purposes, especially for determination of public access, and is not to be used for sale or transfer of real estate where official government plat maps must be used to verify any traffic way shown on this map. MARCOA Media, LLC assumes no responsibility in cases of misrepresentation by others of map data not confirmed by actual surveys.
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NAVY HOUSING AREAS
(CDC) Child Development Centers
(YOUTH) Youth Recreation Centers
(FFS) Fleet & Family Support Branches

FACILITY	SPOT	CDC	YOUTH	FFS
Admiral Hartman	8	✓	✓	✓
Aero Ridge	8	✓	✓	✓
Bayview Hills	18	✓	✓	✓
Beech Street Knolls	10	✓	✓	✓
Bonita Bluffs	20	✓	✓	✓
Canyon View	8	✓	✓	✓
Chesterton	5	✓	✓	✓
Chesterton Townhouses	4	✓	✓	✓
Chollas Heights	13	✓	✓	✓
Chollas Heights Historical	13	✓	✓	✓
Eucalyptus Ridge	26	✓	✓	✓
Gateway Village	3	✓	✓	✓
Hilary Park	30	✓	✓	✓
Holly Square Apartments	16	✓	✓	✓
Home Terrace	12	✓	✓	✓
Howard Gilmore Terrace	21	✓	✓	✓
La Mesa Park	22	✓	✓	✓
Lojgren Terrace	17	✓	✓	✓
Mira Mesa Ridge	29	✓	✓	✓
Oleek Heights	7	✓	✓	✓
Paradise Gardens	19	✓	✓	✓
Park Summit	9	✓	✓	✓
Pomerado Terrace	28	✓	✓	✓
Prospect View	24	✓	✓	✓
Ramona Vista	27	✓	✓	✓
River Place	23	✓	✓	✓
Santo Terrace	8	✓	✓	✓
Silver Strand Phase I	14	✓	✓	✓
Silver Strand Phase II	15	✓	✓	✓
Terrace View Villas	11	✓	✓	✓
Village at NTC	2	✓	✓	✓
Village at Serra Mesa	6	✓	✓	✓
Vista Ridge	31	✓	✓	✓
Woodlake	25	✓	✓	✓
Naval Medical Center		✓	✓	✓
MCRD		✓	✓	✓
MCAS Miramar		✓	✓	✓

MAP OF SAN DIEGO COUNTY

Legend for the map:
 - Interstate Freys (thick red line)
 - State Freys (red line)
 - Minor Freys (thin red line)
 - Main Roads (grey line)
 - Railroads (dashed line)
 - State Boundary (dashed line)
 - Points of Interest (red star)
 - Colleges & Universities (red square)
 - Hospitals (red circle)
 - Airports (red airplane icon)

PACIFIC OCEAN





MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Appendix B. iCommute Park & Ride Map

southern riverside

Riverside County Park & Ride lots are maintained by the Riverside County Transportation Commission (RCTC), unless otherwise noted. For more information visit IE511.org

(Full San Diego region Park & Ride map on reverse)

LOCATION	TRANSIT	PARKING SPACES
TEMECULA		
A United Methodist Church 42690 Margarita Rd		71
B Orchard Christian Fellowship 42101 Moraga Rd		105
C Rancho Community Church**** 31300 Rancho Community Way		100
D Winchester* 41327 Winchester Rd		87
E Promenade Mall** 40820 Winchester Rd	•	75
SAN JACINTO		
F Mt. San Jacinto College*** 1499 N State St	•	27
PERRIS		
G Downtown Perris Station C St and 4th St	•	24
H South Perris Station 1304 Case Road		74
MENIFEE		
I The View Church 27755 Bradley Rd	•	38
LAKE ELSINORE		
J Grand 15887 Grand Ave		79
K Dexter* 18600 Dexter Ave		50
L Outlet Center 17600 Collier Ave	•	186
M Shepherd of Life 30400 Grand Ave		50
MURRIETA		
N Promise Lutheran Church 25664 Madison Ave		46

* Not an RCTC lot.
 ** Not an RCTC lot; permit required. Call (951) 296-1121.
 *** Permit required. Call (951) 787-7141.
 **** Not an RCTC lot. No overnight parking.

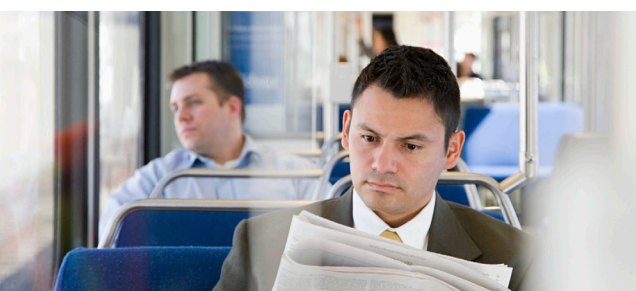
vanpool



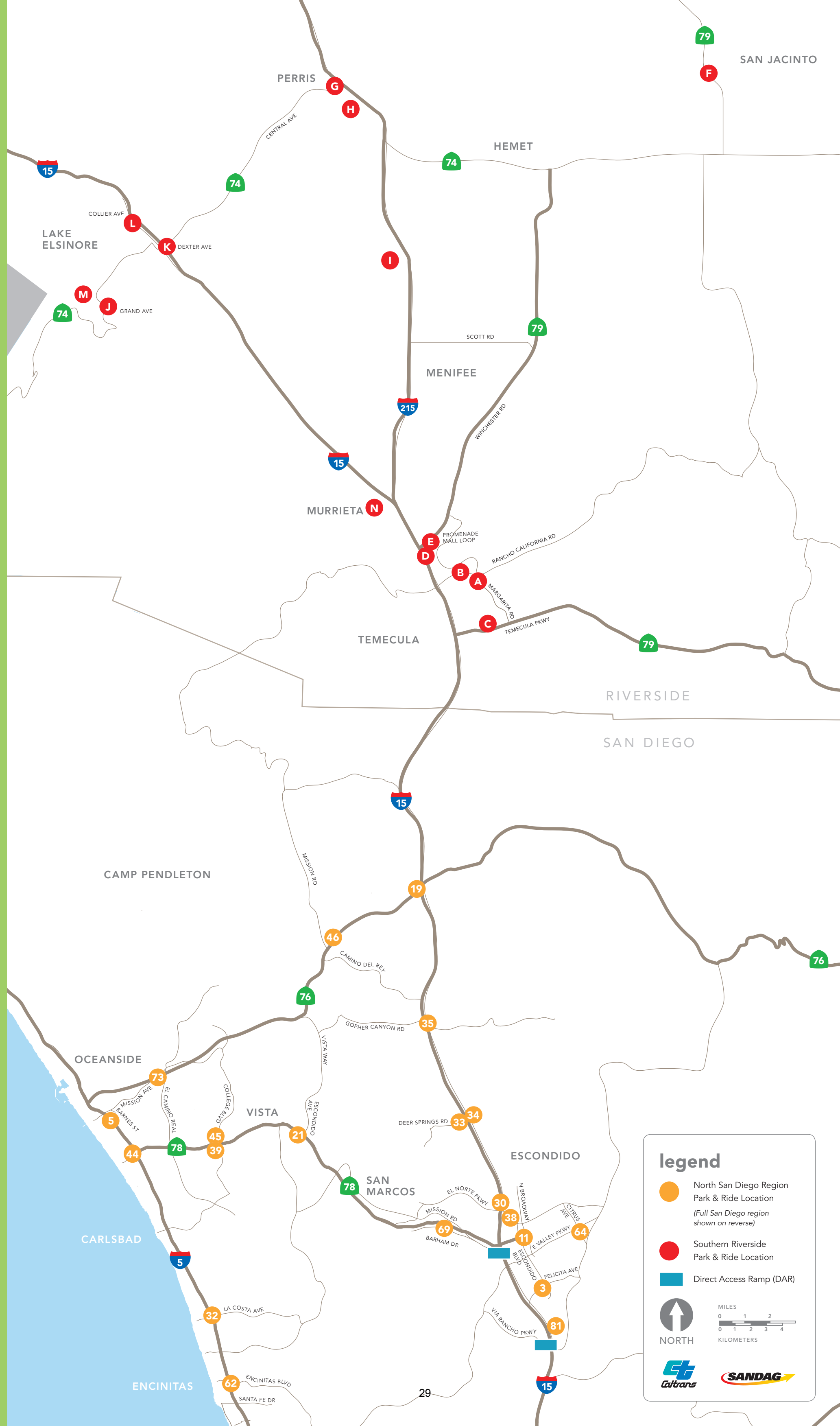
A vanpool brings five or more people together to share the costs of getting to work in a van or SUV. It's like a carpool, only bigger! Vanpool participants generally pay less than \$100 per month to get to work, and multiple vehicle options are available. Visit RedesignYourCommute.com to learn more.



guaranteed ride home



With Guaranteed Ride Home (GRH), commuters who carpool, vanpool, take transit, walk, or bike to work in San Diego County have a built-in safety net. In case of emergency or unscheduled overtime, the GRH program will get you home for free. To find out more, visit 511sd.com/iCommute.



park and go

Park & Ride

Park & Ride lots are free, conveniently located throughout the region, and offer a great place to meet carpool or vanpool partners. This map provides a locator tool for approximately 90 Park & Ride lots in the San Diego region and in southern Riverside County. The map also has information about each lot's features, including the number of parking spaces, bike lockers, and transit connections. Leave your solo commute behind and find an alternative way to get to work and to many other destinations around San Diego County.

iCommute

More information about Park & Ride lots is available through the San Diego Association of Governments (SANDAG) iCommute program. iCommute assists commuters by providing carpool and ridematching services, a subsidized vanpool program, transit solutions, the Guaranteed Ride Home program, regional support for biking, and bike and pedestrian safety program support for schools. Visit 511sd.com/iCommute or call 511 and say "iCommute" for more information.

511

511 is a free phone and web service that consolidates the San Diego region's transportation information into a one-stop resource. 511 provides current information on: traffic conditions, incidents, and driving times; schedule, route, and fare information for San Diego public transportation services; commuter services; and biking information. The 511 service is available 24 hours a day, seven days a week at 511sd.com, by calling 511, or by downloading the 511 San Diego mobile app, available for iOS and Android.



Last modified: May 2016

3761

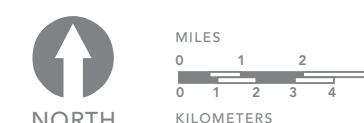


my favorite morning meeting

san diego regional park & ride map

legend

- North San Diego Region Park & Ride Location (Full San Diego region shown on reverse)
- Southern Riverside Park & Ride Location
- Direct Access Ramp (DAR)



san diego region park & ride lots

CALTRANS LOT #	TRANSIT BIKE PARKING PARKING SPACES
1	45
2	30
3	30
4	102
5	43
6	176
7	50
8	43
9	135
10	45
11	85
12	23
16	103
17	25
19	163
20	84
21	15
22	65
24	53
25	60
26	125
28	10
29	25
30	41
32	115
33	28
34	41
35	11
37	63
38	111
39	50
40	22
41	106
42	18
43	26
44	130
45	32
46	50
47	56
48	34
50	23
51	58
53	88
57	132
59	29
60	20
61	17
62	27
63	35
64	20
65	15
69	89
70	36
71	10
72	22
73	50
75	20
76	50
77	102
78	15
80	235
81	76



*Park & Ride parking Monday-Friday, 5:30 a.m. - 6 p.m. only
 **Park & Ride parking Monday-Friday only

iCommute



park & ride map

Information on this map is accurate as of May 2016. HPark & Ride lot locations and amenities change periodically. Visit Caltrans at dot.ca.gov/dist11 to find the most up-to-date Park & Ride lot information.



transit



Taking public transportation helps you beat traffic, save money on gas, and ease the stress of your daily commute. Park at a transit station or Park & Ride lot and get on board the bus, Rapid, Trolley, COASTER, or SPRINTER. Your transit ride is even easier with Compass Card — the smart card for transit passes. Get your Compass Card at Albertsons and select Vons stores in San Diego County or visit 511sd.com/compass for more information.



secure bike parking



GO BY BIKE to close the gaps in your commute. Secure bike parking facilities are available throughout the region to make your trip a little easier. They keep your bike safe while you take transit or share a ride to work. To find out which Park & Ride lots have bike parking, check the list on this map. There is no fee to use bike parking facilities — just a small, refundable deposit. To sign up for bike parking or get more information on bike commuting, visit 511sd.com/iCommute.



TripPlanner



Find the best way to get where you need to go by comparing multiple transportation choices in one place. Just enter your starting point and destination in TripPlanner and click "Let's Go!" It's that easy. Trip Planner compares carpool, vanpool, transit, walk, and bike options, while calculating time, cost, calories burned, and emissions estimates.





MILITARY MULTIMODAL ACCESS STRATEGY






























BRIEFING BOOK



Appendix C. Naval Base Coronado Mobility Report Card

**Mobility Report Card
Naval Base Coronado**

Mobility Options		Supportive Programs/Infrastructure			Related Infrastructure Project Types	
		On Base	City of Coronado	City of Imperial Beach		
	Walking/Biking	<ul style="list-style-type: none"> NASNI - Activity centers (e.g. hangars) are far apart/spread out NAB, SSTC, NOLF - Activity centers are walkable/bikeable; however gate access options are limited 	<ul style="list-style-type: none"> Substantial sidewalks and low speed limits. No sidewalks on Silver Strand. Bayshore Bikeway Class II bike lanes on 1st St., 6th St., & Glorietta Blvd. Class III bike route on Alameda St 	<ul style="list-style-type: none"> Substantial sidewalks. No sidewalks on Silver Strand. Bayshore Bikeway Intermittent Class III bike routes along local streets Class II bike lanes on 13th St. and intermittent Class II bike lanes on Palm Avenue 		Active Transportation
	Public Transit	<ul style="list-style-type: none"> No transit services on base 	<ul style="list-style-type: none"> MTS Route 901, 904 Ferry 	<ul style="list-style-type: none"> MTS Blue Line Trolley MTS Routes 901, 933, & 934 		Transit Infrastructure
	Microtransit	<ul style="list-style-type: none"> Internal shuttle on NASNI 	<ul style="list-style-type: none"> No current service 	<ul style="list-style-type: none"> No current service 		Local Roads
	Carpool & Vanpool	<ul style="list-style-type: none"> Vanpool subsidy with TIPS SANDAG iCommute Vanpool Program No designated parking spaces for carpool or vanpool 	<ul style="list-style-type: none"> No existing High Occupancy Vehicle (HOV) lanes on SR 75 	<ul style="list-style-type: none"> No existing High Occupancy Vehicle (HOV) lanes on SR 75 	 	Freeway Network Parking
	Carshare	<ul style="list-style-type: none"> Limited government fleet 	<ul style="list-style-type: none"> No current programs 	<ul style="list-style-type: none"> No current programs 		Parking
	On-Demand Rideshare	<ul style="list-style-type: none"> Waze Carpool Uber, Lyft with Security Clearance 	<ul style="list-style-type: none"> Waze Carpool Uber, Lyft 	<ul style="list-style-type: none"> Waze Carpool Uber, Lyft 	 	Local Roads Curbside Designation
	Bikeshare	<ul style="list-style-type: none"> Lime permitted on base 	<ul style="list-style-type: none"> Prohibited per City policy 	<ul style="list-style-type: none"> Lime 	 	Active Transportation Local Roads
	Electric Bike & Scootershare	<ul style="list-style-type: none"> No current programs 	<ul style="list-style-type: none"> Prohibited per City policy 	<ul style="list-style-type: none"> No current programs 	 	Active Transportation Local Roads
	Neighborhood Electric Vehicles (NEVs)	<ul style="list-style-type: none"> No current programs 	<ul style="list-style-type: none"> No current programs 	<ul style="list-style-type: none"> No current programs 	 	Active Transportation Local Roads
	Other	<ul style="list-style-type: none"> High supply of parking Limited Electric Vehicle charging infrastructure Some goods movement prohibited from using Coronado Bay Bridge and instead limited to Silver Strand access 	<ul style="list-style-type: none"> Smart Growth Opportunity Areas: Downtown Coronado and Ferry Landing Limited street parking close to base 	<ul style="list-style-type: none"> Smart Growth Opportunity Areas: Palm Avenue & Seacoast Drive and Palm Avenue & 9th St. Traffic Signal Synchronization to base 	  	Parking Electric Vehicle Charging Transit Infrastructure

Data current as of December 2018



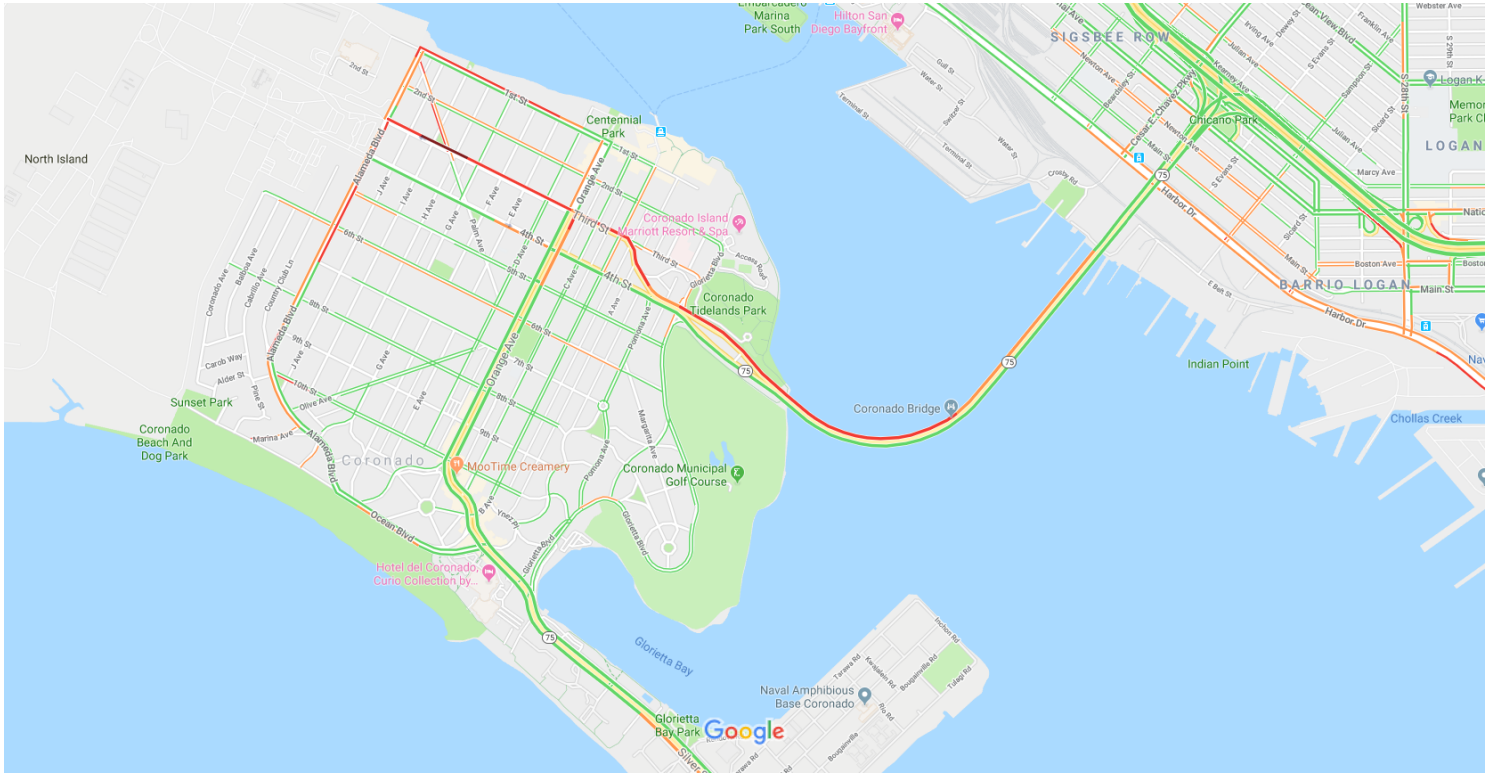
MILITARY MULTIMODAL ACCESS STRATEGY



BRIEFING BOOK



Appendix D. Google Traffic Maps



Map data ©2018 Google 1000 ft

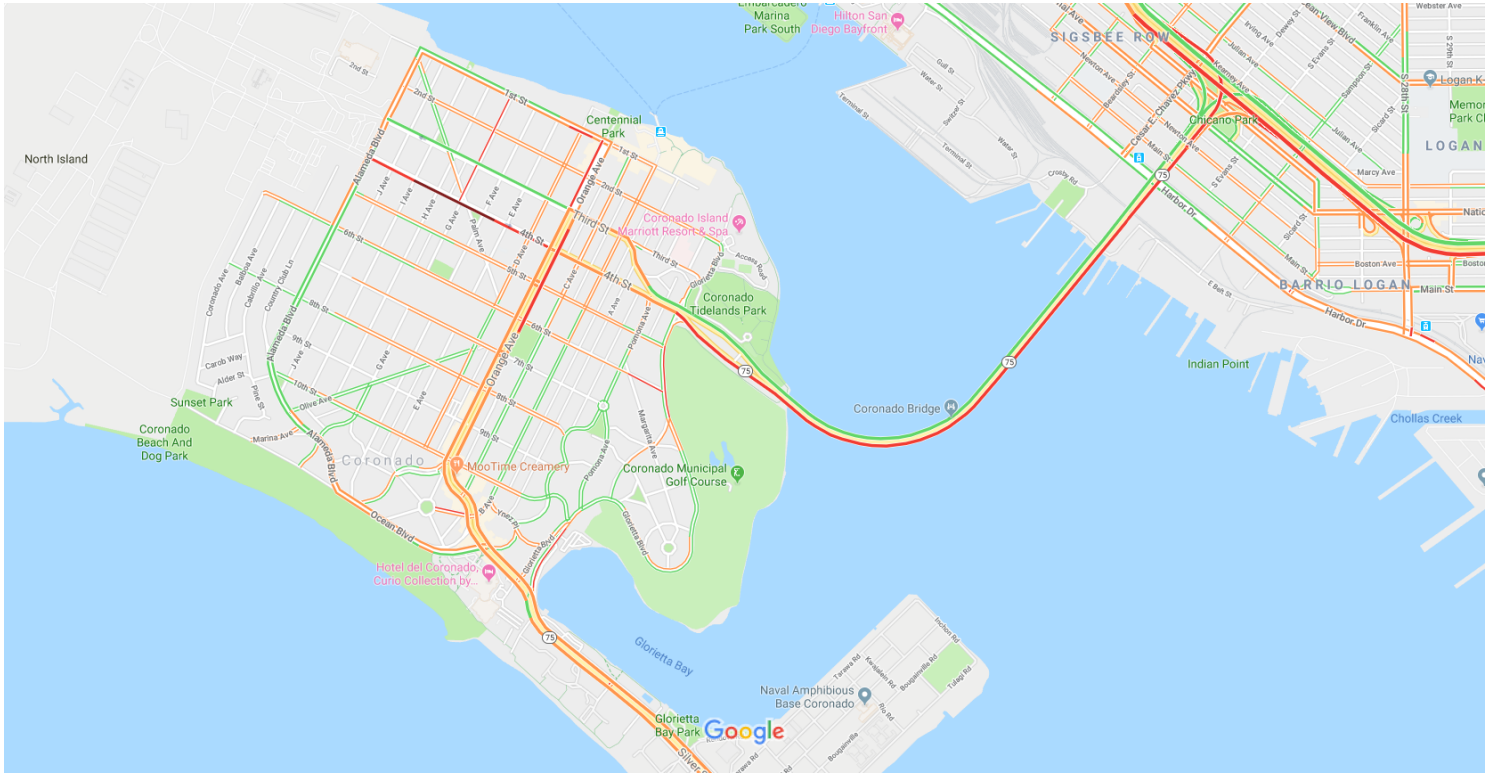
Typical traffic

Fast █ █ █ █ Slow

S M T **W** T F S

Wednesday, 6:00 AM

8 AM 12 PM 4 PM 8 PM



Map data ©2018 Google 1000 ft

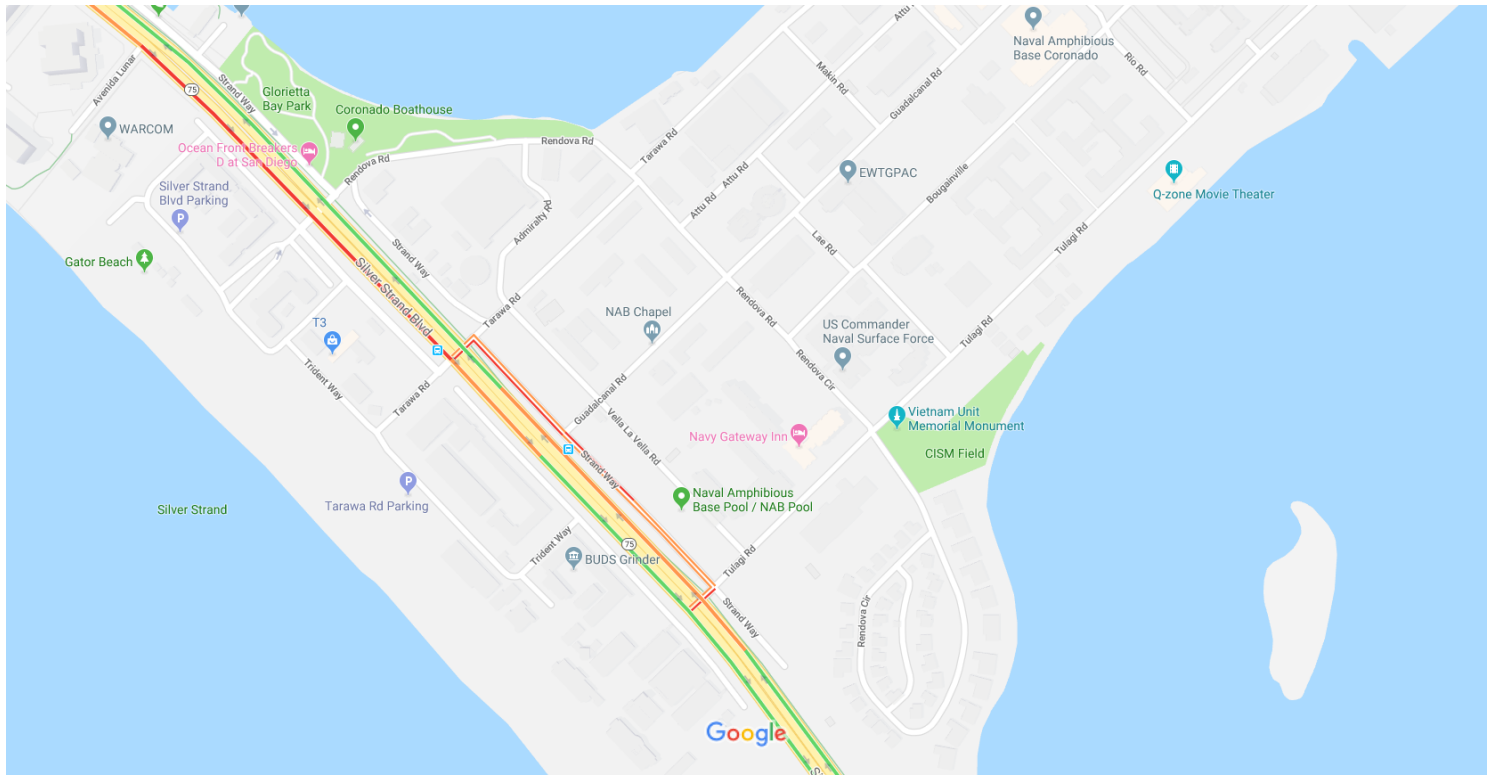
Typical traffic

Fast █ █ █ █ Slow

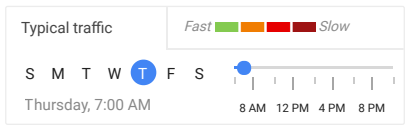
S M T W **T** F S

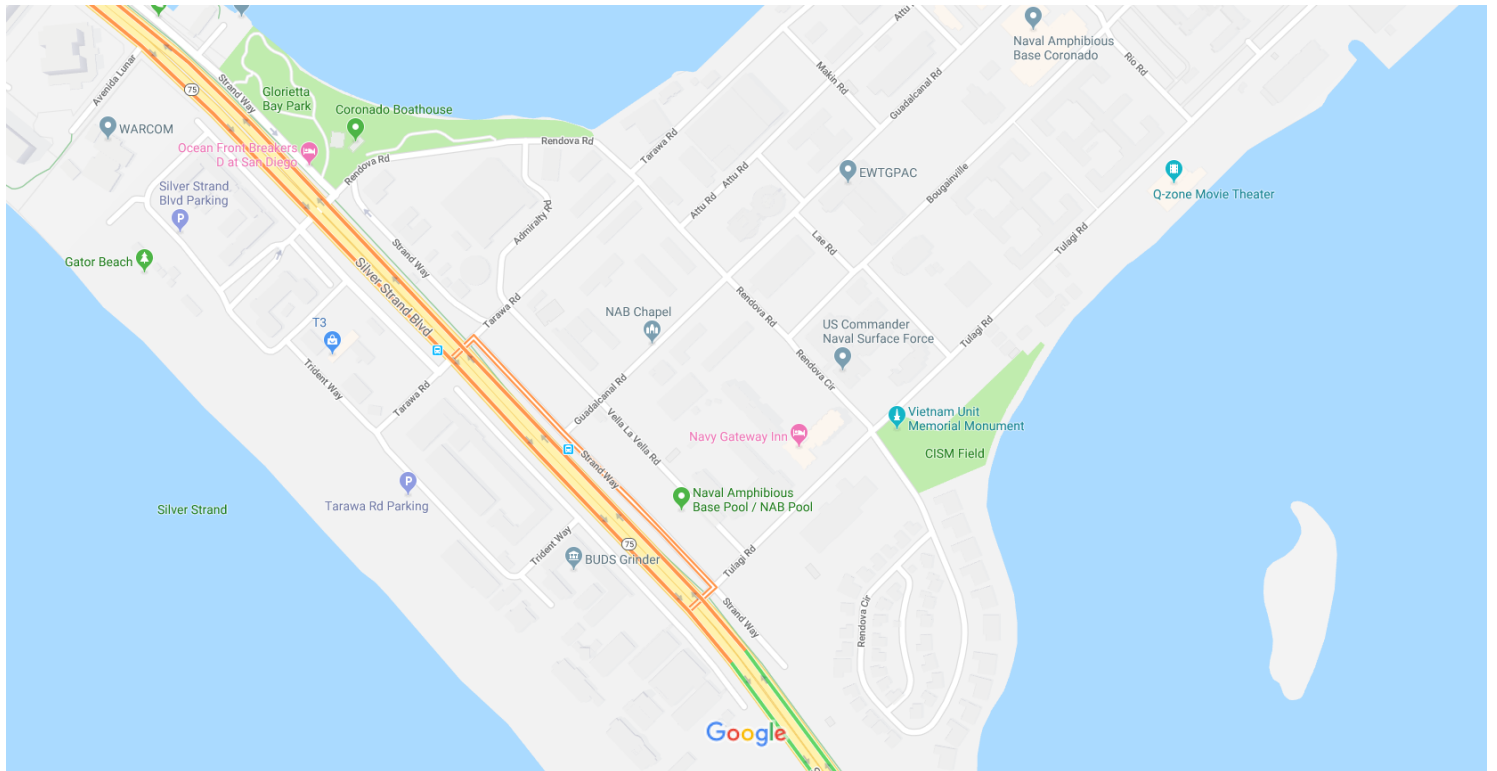
Thursday, 3:40 PM

8 AM 12 PM 4 PM 8 PM



Map data ©2018 Google 200 ft





Map data ©2018 Google 200 ft

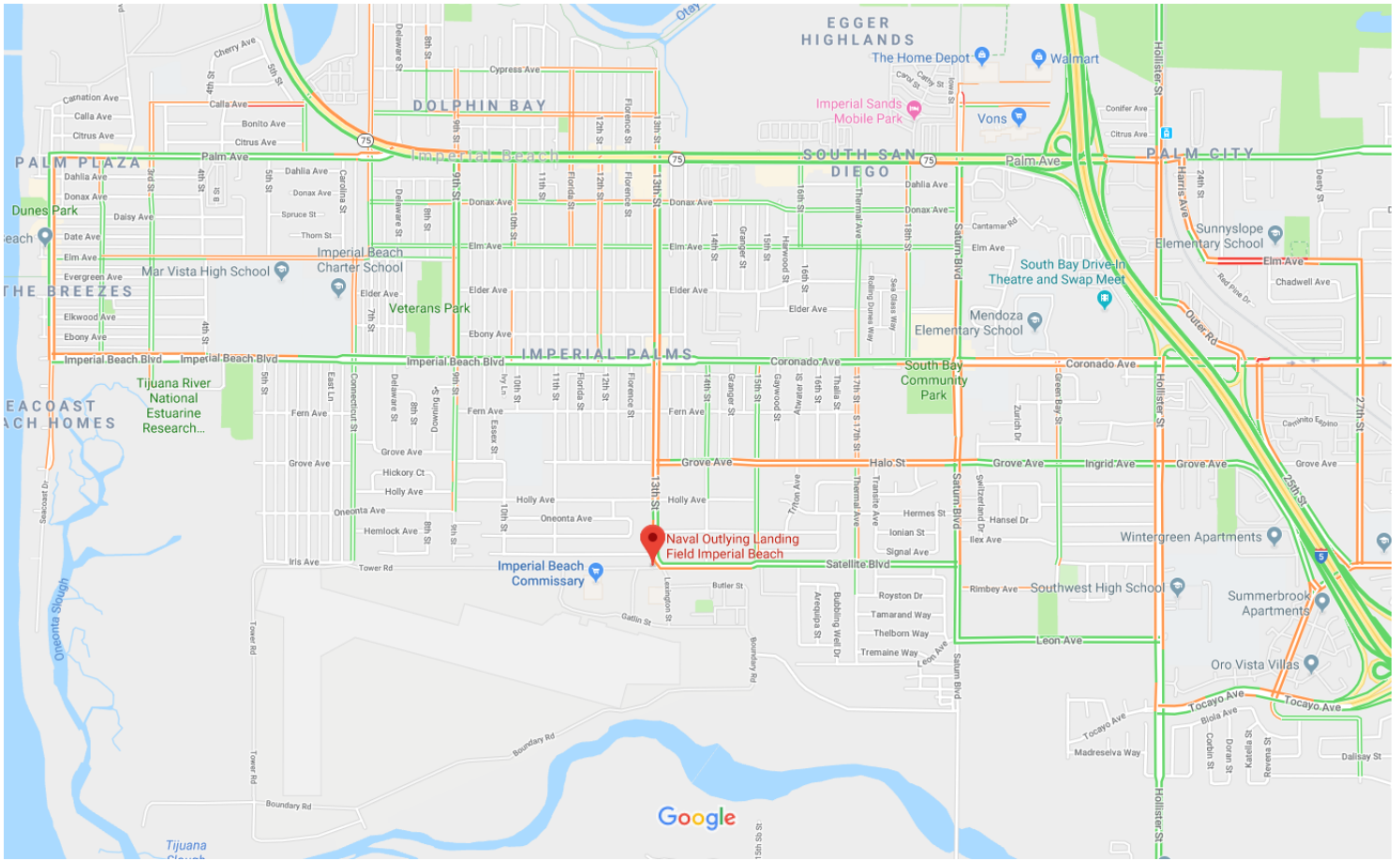
Typical traffic

Fast Slow

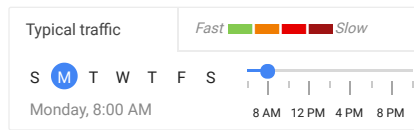
S M T W **T** F S

Thursday, 2:55 PM

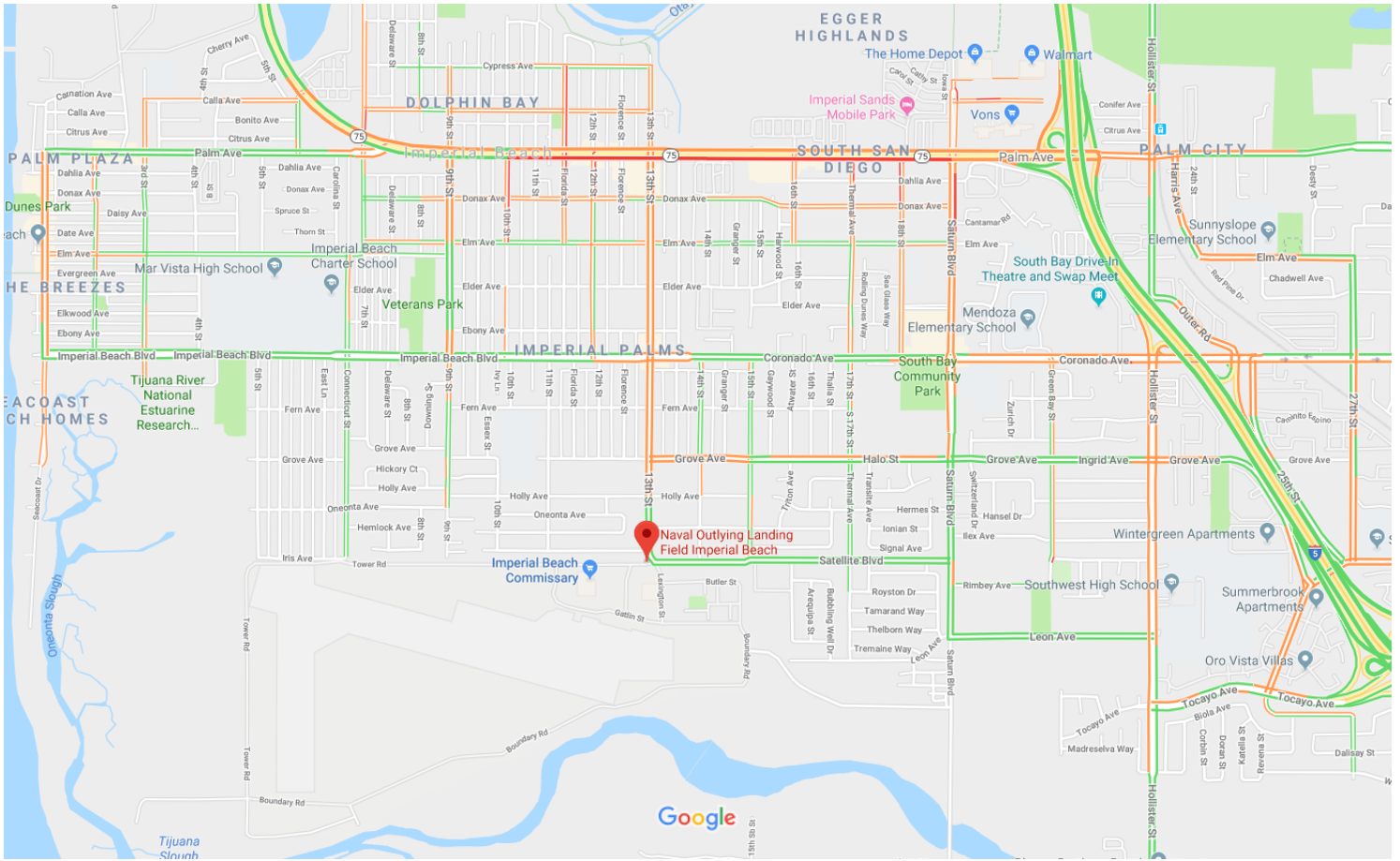
8 AM 12 PM 4 PM 8 PM



Map data ©2018 Google 1000 ft



Google Maps Naval Outlying Landing Field Imperial Beach



Map data ©2018 Google 1000 ft

