# Parking Utilization and Transportation Management Strategies Report

## *Venice Coastal Zone*

Prepared for:
City of Los Angeles
Department of City Planning

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LA18-3029

FEHR PEERS

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# Executive Summary

Parking has long been a major point of discussion in the Venice community. Many residents, tourists, and business owners believe that there should be more parking available, especially by the shoreline. Conversely, some developers and project applicants feel that the current parking requirements are too burdensome. One thing all Venice stakeholders can agree on is that the design and management of parking supply affects the livability and walkability of a community. To that end, the intent of this parking study is to evaluate existing conditions and determine short- and long-term recommendations to improve parking in the Venice Coastal Zone. The goals of this study are to:

- Document the existing parking supply and utilization within the Venice Coastal Zone,
- Analyze the parking constraints and opportunities within the Venice Coastal Zone,
- Analyze travel behavior and parking utilization,
- Identify parking supply and curb management strategies as well as parking demand management strategies that maintain and expand public access,
- Identify transportation demand management strategies that can increase travel choices and encourage alternative modes of travel,
- Evaluate the current Venice Coastal Zone parking in-lieu fee program and propose recommendations for how the program can be improved,
- Analyze and recommend revisions to the parking requirements in the Venice Coastal Zone.

Existing parking inventory was determined through in-person parking counts, reviews of background information, and input from City staff. The examination of existing conditions provides the baseline data from which recommendations could be evaluated. Recommendations are proposed to address future needs, as well as improve the utilization and efficiency of existing parking resources. These recommendations include establishing a parking credits program to replace the current parking in-lieu fee, changing the current parking requirements, and proposing general transportation demand management (TDM) and parking management strategies.

Neighborhoods within the Venice Coastal Zone experience different peak parking demands to serve different purposes; therefore, the data collection area was further separated into nine Parking Analysis Zones, as described in Part 2.2. These Parking Analysis Zones form the basis for data aggregation presented in Part 3.2. Observations of parking duration and availability were conducted in May and July 2018. Parking occupancy data was collected once during each non-summer and summer period through manual parking counts for all on-street parking spaces as well as public and private lots. In the study area, a total of 14,291 parking spaces exists: 12,157 on-street parking spaces and 2,134 off-street parking spaces. Off-street parking includes public and private lots that advertise themselves as beach parking. On-street parking in Venice is mostly unmetered and, when metered, the time limits are not heavily enforced. The recommended strategies found in Parts 4.2 and 4.3 were informed by the findings in Parts 3.2 and 3.3.

These strategies, which include both parking and travel demand management strategies, were analyzed in terms of cost and effectiveness.

Across the Venice Coastal Zone, approximately 18% of on-street spaces are never utilized. Most of the underutilized spaces are in the Oxford Triangle and Lincoln commercial areas. Approximately 6% of public off-street spaces are not used during peak demand and as many as 39% are not used most days of the year. A majority of the underutilized spaces are in LADOT Lots 701 and 731, as well as the beach lots.

The parking ratios required for different land use types in the Venice Coastal Zone were compared to those in the rest of the City of Los Angeles as well as to those in 10 coastal cities. The results of this comparison show that the Venice Coastal Zone has among the highest parking requirements across coastal Southern California, higher than in the rest of the City of Los Angeles. This study identifies a potential decrease in parking requirements for most types of development, with the exception of single-family residences. Suggested changes include lowering requirements for multi-family residences; office, retail, and manufacturing facilities; and restaurant uses. The impact of relaxing certain parking requirements should be analyzed in tandem with the implementation of other recommendations to ensure minimal impact to coastal access. The research and potential updates to parking requirements are presented in Parts 3.4 and 4.4 of this report.

Part 3.5 of this study evaluates the parking in-lieu fee, finding that the current in-lieu fee program is underutilized, in part because the one-time, lump-sum fee is an obstacle for many business owners. Based on today's construction cost, the estimated average cost of providing one parking space is $36,500 per space, far exceeding the current fee of $18,000 per space. To address these issues, Part 4.5 of the study proposes two alternative recommendations: adjusting the current in-lieu fee to align with current parking costs or replacing the existing in-lieu fee program with a parking credits program.

Trip lengths were also analyzed. A sample of 599,000 trips to the Venice Coastal Zone, collected from GPS and cell phone data from May 2017 through April 2018, identified travel patterns for trips that end in Venice. It was determined that 26% represented trips coming from farther away than Ventura and Orange counties. The remaining 74% represent local and regional trips. Over 40% of trips are four miles or less, and nearly 30% are three miles or less. This analysis did not include trips that both begin and end in the study area.

Information on commute mode and vehicle ownership provide insight into the community's parking needs. Compared to the city at large, residents of the Venice Coastal Zone are twice as likely to walk to work or work from home, five times as likely to bicycle to work, nearly half as likely to carpool to work, and one-fifth as likely to take transit to work. Residents of the Venice Coastal Zone own fewer vehicles per household, on average, than residents in the City of Los Angeles as a whole: 1.45 vehicles per household compared to 1.57 across the City. Almost half of households in the Venice Coastal Zone own just one vehicle.

Current efforts to update the Venice Local Coastal Program will be informed, in part, by the information presented in this parking study. The recommendations of this study are proposed with consideration to the California Coastal Act. One of the key goals of the California Coastal Act is to enhance and protect public access to the coast. It is important to note that the recommendations herein must first be proposed in the Venice Local Program (LCP), adopted by the City Council, and then certified by the California Coastal Commission before becoming effective. Any changes to parking regulations or enforcement will be communicated to the public in a timely manner.

The findings and recommendations of this report provide an opportunity for the Los Angeles Department of City Planning to make changes in the way parking policy is implemented. These changes can help ensure that parking in the Venice Coastal Zone is efficiently managed and continues to serve its users, and that existing regulations are effectively and equitably enforced. Providing convenient access for employees, residents, shoppers, and visitors will ensure that Venice remains a vibrant hub of activity.

# Part I: Introduction

## 1.1 Study Purpose

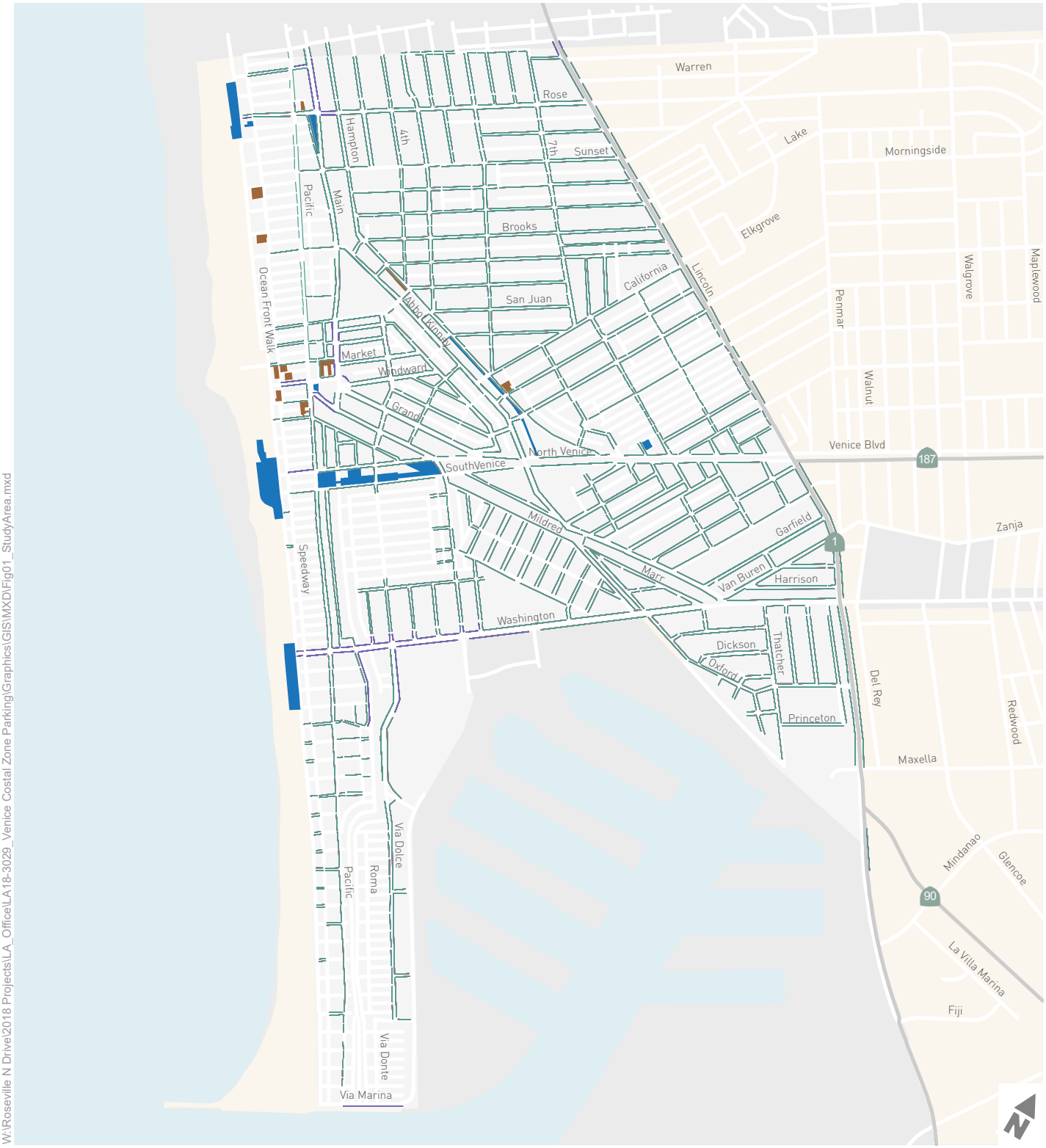
The purpose of the study is to obtain a comprehensive understanding of parking dynamics in the Venice Coastal Zone area that can be used to inform decision-making about existing and proposed parking policies. Venice attracts a growing number of over 10 million visitors each year. A typical summer day in Venice can draw between 50,000 to 60,000 beachgoers. Because of its coastal allure and popularity among tourists, parking in Venice can be hard to come by. Considerable time is spent trying to find free or cheap parking, as many beachgoers choose to park their vehicles in residential neighborhoods. The ongoing competition for curb space between residents and visitors is further heightened by under-parked, nonconforming uses. A common belief among residents and visitors is that Venice does not have enough parking. This study seeks to examine this idea of inadequate parking to determine whether the perception is true and, if found to be true, where scarcity of parking exists, and to what extent. Based on the study's findings, recommendations for parking strategies and traffic management are provided.

This report seeks to analyze parking constraints and opportunities within the Venice Coastal Zone as it relates to the City's efforts to prioritize pedestrians, bicyclists, and transit users. As required by the California Coastal Act of 1976, development regulations and parking policies in the Venice Coastal Zone are to be implemented in a manner that maximizes public access to coastal destinations.[1] The authority for this mandate comes from the California Constitution,[2] which declares that "access to the navigable waters of this State shall be always attainable for the people thereof." To this end, the recommendations herein should be implemented in a manner consistent with the Coastal Act's public access provisions. Findings and recommendations from this report will be incorporated into the City of Los Angeles' Land Use Plan for the Venice Coastal Zone Local Coastal Program, which, after public review and comment, will be submitted to the California Coastal Commission for certification.

## 1.2 Study Area and Map

The Venice Coastal Zone is generally bounded by Venice Beach to the west, the city limit to the north, Lincoln Boulevard to the east, and the unincorporated area of Marina del Rey (roughly Via Marina, Washington Boulevard, and Oxford Avenue) to the south. Figure 1 shows the general scope of the study area, including the location of available metered and non-metered on-street parking, and public and private off-street lots open to the public that were included in this study.

[1] Section 30500 of California Coastal Act
[2] Article 10, Section 4 of the California Constitution

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Available On-Street Metered Parking

Available On-Street Parking

Private Off-Street Lot

Public Off-Street Lot

**Parking Supply**

| | |
|---|---|
| On-Street Metered Parking | 329 |
| On-Street Un-Metered Parking | 11,828 |
| On-Street Subtotal | 12,157 |
| Off-Street Private Lots | 571 |
| Off-Street Public Lots | 1,563 |
| Off-Street Subtotal | 2,134 |
| Total | 14,291 |

Figure 1

## Venice Coastal Zone Study Area

## 1.3 Report Organization

The primary goals of this study are to:

- Document the existing parking supply and utilization within the Venice Coastal Zone,
- Analyze the parking constraints and opportunities within the Venice Coastal Zone,
- Analyze travel behavior and parking utilization,
- Identify parking supply and curb management strategies as well as parking demand management strategies that maintain and expand public access,
- Identify transportation demand management strategies that can increase travel choices and encourage alternative modes of travel,
- Evaluate the current Venice Coastal Zone parking in-lieu fee program and propose recommendations for how the program can be improved,
- Analyze and recommend revisions to the parking requirements in the Venice Coastal Zone.

The organization of this report is as follows:

**Part I: Introduction**

**Part II: Existing Conditions**

- Documentation of existing parking supply within the Venice Coastal Zone

**Part III: Data, Analysis, and Findings**

- Analysis of parking constraints and opportunities within the Venice Coastal Zone
- Analysis of travel behavior and parking utilization in the Venice Coastal Zone
- Comparative analysis of existing parking requirements

**Part IV: Recommendations**

- Identification of parking supply and curb management strategies as well as parking demand management strategies that maintain and expand public access
- Identification of transportation demand management strategies to increase travel choices and encourage alternatives to driving alone
- Evaluation of the current Venice Coastal Zone parking in-lieu fee program, with recommendations for how the program can be improved
- Recommendation of revised parking requirements in the Venice Coastal

# Part II: Existing Conditions

## 2.1 Background

The study area boundaries were determined in consultation with City of Los Angeles staff and encompass all available on-street parking, including metered and unmetered spaces, and 11 public and 12 private off-street parking lots within the Venice Coastal Zone. The Venice Coastal Zone is home to several iconic destinations, including Venice Beach and the shops, restaurants, and hotels, located along the mixed-use corridors of Main Street, Rose Avenue, Abbot Kinney Boulevard, Venice Boulevard, Washington Boulevard, Lincoln Boulevard, and Ocean Front Walk. Residential land uses, including single-family and multi-family residences, as well as several public facilities and some light industrial land uses make up the rest of the study area.

## 2.2 Parking Challenges, Opportunities, and Needs

Parking supply and demand largely vary depending on location. As neighborhoods within the Venice Coastal Zone experience different peak parking demands to serve different purposes, the data collection area was further separated into nine Parking Analysis Zones for the purpose of this study. The areas that make up the Parking Analysis Zones were defined by common land use mix and street network boundaries. Within each zone, land uses may be relatively similar or mixed. For example, the Beach Impact Parking Analysis Zone represents a mix of commercial and residential uses but includes all major destinations associated with the beach, such as the Boardwalk, Skate Park, Muscle Beach, pickleball and basketball courts, tourist shops, restaurants, and other beach-serving services. The Oxford Triangle Parking Analysis Zone, on the other hand, is almost exclusively residential, with a road pattern that isolates it to some extent from the rest of Venice. These Parking Analysis Zones form the basis for data aggregation presented in Part 3.2.

A manual count of parking spaces was conducted in a non-summer month and verified during a summer month. This count determined there are approximately 12,157 on-street parking spaces and 2,134 off-street parking spaces. The estimated on-street spaces were based on the length of unmarked curb space, the areas where on-street parking is permitted, the number of on-street spaces, the locations of special curb designations, meter prices, and other restrictions on parking. The estimated off-street spaces were based on existing spaces in public and private lots, time limits, meter or lot prices, and other parking restrictions.

Parking demand (both on-street and off-street) was analyzed during four observation periods (1-4, outlined below). These time periods were selected to capture the anticipated "peak hour" of parking demand for a variety of day types (e.g., weekday vs. weekend) and to reflect seasonal fluctuations in parking demand; namely, that parking demand is higher during the summer months, when the beach is a more popular destination due to higher temperatures and people being on vacation. The data collected in May is more representative of parking demand throughout the rest of the year, when schools are in

session and fewer people are on vacation and visiting the beach (although probably higher than demand in the winter months, when temperatures are lower). Parking surveys were conducted during:

1. A weekday in May 2018 (non-summer 2018), when area schools were in normal session
2. A weekend in May 2018 (non-summer 2018), when area schools were in normal session
3. A weekday in July 2018 (summer 2018), when area schools were out of session
4. A weekend in July 2018 (summer 2018), when area schools were out of session

Parking occupancy data was collected once during each non-summer (2018) and summer (2018) period through manual parking counts for all on-street parking spaces and off-street lots (public and private). Occupancy sweeps for both on-street and off-street parking were conducted in 2-hour increments from 8 am to 8 pm on a weekday and a weekend day during each non-summer and summer period. An additional occupancy sweep of on-street parking was conducted overnight on a weekday during each period, in order to estimate residential demand for parking in the Venice Coastal Zone. This timeline of data collection is summarized in Table 1.

**Table 1: Parking Utilization Data Collection and Timeline**

| Season | Month | Day of the Week | Location | Type of Parking Data | Hours |
|---|---|---|---|---|---|
| Non-Summer | May | Weekday | On-Street | Occupancy | 8:00 am – 8:00 pm |
| | | | | Duration | |
| | | | | Occupancy | Overnight |
| | | | Off-Street | Occupancy | 8:00 am – 8:00 pm |
| | | Weekend | On-Street | Occupancy | 8:00 am – 8:00 pm |
| | | | | Duration | |
| | | | Off-Street | Occupancy | |
| Summer | July | Weekday | On-Street | Occupancy | 8:00 am – 8:00 pm |
| | | | | Duration | |
| | | | | Occupancy | Overnight |
| | | | Off-Street | Occupancy | 8:00 am – 8:00 pm |
| | | Weekend | On-Street | Occupancy | 8:00 am – 8:00 pm |
| | | | | Duration | |
| | | | Off-Street | Occupancy | |

Source: Fehr & Peers, 2019.

During both non-summer and summer periods, a sample of on-street parking was surveyed with Automated License Plate Recognition (ALPR) vehicle technology. The ALPR vehicle technology collected license plate data in 2-hour increments from 8 am to 8 pm on a weekday and a weekend day to estimate parking turnover and duration at those on-street spaces. Field observations were also conducted by Fehr & Peers staff to:

- Verify the overall level of parking occupancy in Venice,
- Qualitatively determine if high levels of parking occupancy result in excessive vehicle circulation,
- Establish if parking intrusion occurs into the residential neighborhood on either side of mixed-use corridors and/or in the vicinity of the beach,
- Verify the location and types of parking spaces and parking restrictions.

Field observation findings are discussed further in Part 3.2.4.

## 2.3 Mobility & Connectivity

The City of Los Angeles' *Mobility Plan 2035* (Los Angeles Department of City Planning 2016) lays the foundation for a network of complete streets and establishes complete streets standards to provide safe and efficient transportation for pedestrians (especially for vulnerable users such as children, seniors, and people with disabilities), bicyclists, transit riders, and car and truck drivers.

The *Mobility Plan 2035* designates several streets in the Venice Coastal Zone as part of its Pedestrian Enhanced Districts (PEDs). The PEDs identify where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to and from the major destinations within communities. As shown in Figure 2, the PEDs include street segments along Rose Avenue, Pacific Avenue, and Abbot Kinney Boulevard. Additionally, there are street segments included in the city's Neighborhood Enhanced Network. The *Mobility Plan 2035* defines the Neighborhood Enhanced Network as a system of local streets that are slow moving and safe enough to connect neighborhoods through active transportation.[3] Streets included in the city's network include the following streets in Venice: Riviera Avenue, Dell Avenue, California Avenue, 7th Avenue, Palms Boulevard, Oakwood Avenue, Abbot Kinney Boulevard, Marr Street, Oxford Avenue, Berkeley Drive, Thatcher Avenue, and Princeton Drive.

### 2.3.1 Pedestrian Connections

The Venice Coastal Zone is connected by a network of paved sidewalks that facilitate travel by foot. Walk Streets, coastal accessways, Ocean Front Walk, and the California Coastal Trail are unique pedestrian pathways in the Venice Coastal area that designate a right-of-way for pedestrians. Sidewalks are typically found on both sides of the street throughout Venice, except along the Venice Canals and on many of the residential streets south of Washington Boulevard, between the beach and the Grand Canal. Sidewalks, which are often narrow, are in need of repair in many areas. Many older sidewalks are not ADA-compliant due to widths, obstructions, and lack of curb ramps. Venice's alleyways are not improved with sidewalks, as their primary purpose is to provide vehicle access to lots.

Marked and/or high-visibility crosswalks across all intersection legs are typically provided at major intersections in Venice. Pedestrian scrambles are present at the intersections of Pacific Avenue and

[3] Los Angeles Department of City Planning, Mobility Plan 2035: An Element of the General Plan. Adopted September 7, 2016. P.61, accessed from https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf

Windward Avenue, and Pacific Avenue and Washington Boulevard. Building better streets designed to manage conflict between pedestrians and vehicles is a high priority in the Venice Coastal Zone, where six traffic deaths occurred between 2012 and 2018.[4]

### 2.3.2 Bicycle and Electric Scooter Connections

The Venice Coastal Zone is served by a network of on- and off-street bicycle facilities. Bike paths currently exist alongside the Ocean Front Walk and as part of the California Coastal Trail that hugs the beach, as shown in Figure 2. Bike lanes are on select streets, most of which are designated as part of the city's Bicycle Enhanced Network per the *Mobility Plan 2035*, while other streets are designated as bike routes marked with sharrows. The bike lanes that run along Venice Boulevard and Washington Boulevard provide direct access to and from the coastline.

Metro Bike Share and the City of Santa Monica's Breeze are both primarily docked bike share services that operate in the Venice Coastal Zone. Metro Bike Share manages 13 docks serving the Venice area, as shown in Figure 2, as well as dockless Metro Smart Bikes. Metro Bike Share stations typically accommodate 10-25 bikes each. Breeze supplies bikes at five docks, which accommodate 8 to 12 bikes each.

Dockless electric bike and scooter share companies, including Bird, Lime, and Spin, began operating in the Venice Coastal Zone in 2018. Riders sign up to locate, unlock, and ride "e-bikes" and "e-scooters" through a smartphone app. Though prices vary slightly between companies, e-scooter rentals typically cost $1 to unlock plus $.15/minute. The scooters reach speeds of up to 15 miles per hour. The dockless bikes and scooters are collected regularly and re-distributed in "drop zones" to rebalance the supply throughout the area.

While the number of dockless shared vehicles available in the Venice Coastal Zone varies throughout the day and seasonally throughout the year, almost 7,500 were reported in Venice and its surrounding areas in June 2019.[5] As of September 2018, the City of Los Angeles has been permitting dockless shared vehicle operators through a one-year pilot program (beginning with a 120-day Conditional Use Permit). Under this program dockless vehicles continued to be available for use in the Venice Coastal Zone into 2020, but their future regulatory framework in the City of Los Angeles is uncertain. In April 2021, City Council adopted an ordinance to replace the existing shared mobility device pilot program with a permanent annual permit program.

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[4] Vision Zero Memorials and Traffic Fatalities Map, accessed from https://ladotlivablestreets.org/programs/vision-zero/maps

[5] The Los Angeles Department of Transportation (LADOT) reported in June 2019 that 7,482 dockless vehicles had been reported by operators in Council District 11, which includes the Venice Coastal Zone and other adjacent neighborhoods. "Dockless Bike/Scooter Share Pilot Program Update." City of Los Angeles Inter-Departmental Correspondence. From Seleta J. Reynolds, General Manager, Department of Transportation to Honorable City Council. June 5, 2019. http://clkrep.lacity.org/onlinedocs/2017/17-1125_rpt_DOT_06-05-2019.pdf

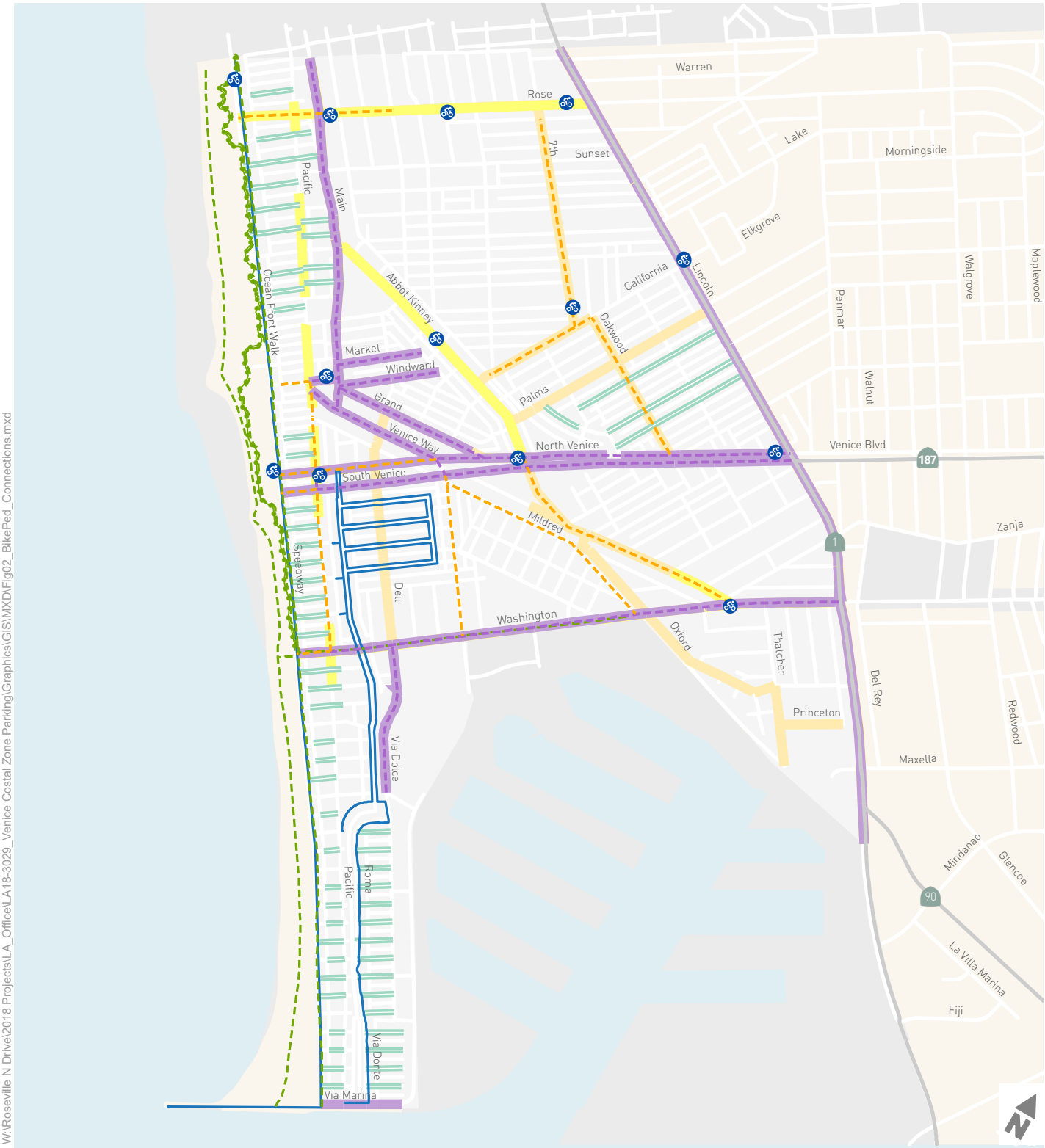


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Figure 2

## Pedestrian and Bicycle Connections

### 2.3.3 Transit Connections

#### *i Fixed-Route Service*

The Venice Coastal Zone is served by several LADOT Commuter Express, Big Blue Bus, Culver City Bus, and Los Angeles County Metropolitan Transportation Authority (Metro) bus routes, as described in Table 2 below and shown in Figure 3. A Playa Vista Beach Shuttle also provides fixed-route service to Abbot Kinney on Fridays, Saturdays, and Sundays from Playa Vista and Marina del Rey. Finally, the Metro Expo Light Rail Line terminates at the Downtown Santa Monica station, located 1.6 miles from the Venice Coastal Zone boundary on 4th Street. Venice Boulevard and Lincoln Boulevard are designated Comprehensive Transit Enhanced Streets, per the City of Los Angeles's *Mobility Plan 2035*, within the study area.

Transit has a limited reach and role in the Venice Coastal Zone, where the commute mode share by transit is lower than for the city overall and the density of transit stops and service is also lower than in most of the city and nearby cities such as Santa Monica and Culver City. Ridership data from Metro lines 33 and 733 show that on a typical Saturday in October, the two stops nearest the beach (Main/Grand and Main/Venice) saw combined boardings and alightings over 1,100. Weekday ridership at the same stops during the same month was just under 1,000.[6]

[6] Interactive Stop Map (October 2019). Accessed from https://la-metro.maps.arcgis.com/apps/Minimalist/index.html?appid=6f605df28f7d488c8c3b7cf4f5c367de

**Table 2: Fixed-Route Transit Service to the Venice Coastal Zone**

| Operator | Line | Route | Weekday Peak Headways[1] | Weekday Off-Peak Headways[1] | Weekend Headways[1] |
|---|---|---|---|---|---|
| Playa Vista Beach Shuttle (LA County) | - | Playa Vista through Marina del Rey to Abbot Kinney | 30 min (Friday only) | 30 min (Friday only) | 30 min |
| LADOT Commuter Express (City of LA) | 437 | Venice to downtown Los Angeles | 25 min | - | - |
| Big Blue Bus (SM) | 1 | UCLA through downtown Santa Monica to Venice | 15 min | 20 min | 20 min |
| Big Blue Bus (SM) | 3 | Downtown Santa Monica to the Aviation/LAX Green Line stop | 20 min | 20 min | 30 min |
| Big Blue Bus (SM) | Rapid 3 | Downtown Santa Monica to the Aviation/LAX Green Line stop | 15 min | 20 min | 20 min |
| Big Blue Bus (SM) | 16 | UCLA to Marina Del Rey by Mar Vista | 25 min | 25 min | - |
| Big Blue Bus (SM) | 18 | UCLA through downtown Santa Monica to Venice | 20 min | 30 min | 30 min |
| Culver City Bus (Culver City) | 1 | West LA Transit Center to Venice Beach | 15 min | 20 min | 20 min |
| Metro | 33 | Union Station in downtown Los Angeles to Ocean Park. During evening/owl trips, Line 33 runs from Ocean Park to downtown Santa Monica. | 15 min | 30 min | 30 min |
| Metro | 108/358 | Marina Del Rey to Pico Rivera | 25 min | 25 min | 60 min |
| Metro | Rapid 733 | Union Station in downtown Los Angeles to Ocean Park | 20 min | 20 min | 25 min |

Notes: 1. Headway refers to the time between buses.
Sources: Free Beach Shuttle Map and Schedule, accessed from https://playavista.com/shared/2017/05/Playa-Vista-Beach-Shuttle-Brochure.pdf?x72063.
LADOT Commuter Express Routes, accessed from https://www.ladottransit.com/comexp/
Big Blue Bus Routes and Schedules, accessed from https://www.bigbluebus.com/Routes-And-Schedules/
Culver City Bus Maps, Bus Stop, and Schedules, accessed from https://www.culvercity.org/how-do-i/find/culver-city-bus/maps-bus-stops-schedules
LA Metro Bus Schedules, accessed from https://www.metro.net/riding/maps/

### *ii On-Demand Shuttle Service*

With on-demand shuttle service, riders reserve a seat on a shuttle that collects them at their location and transports them to their destination. Several on-demand shuttle services operate in and adjacent to the Venice Coastal Zone, as outlined in Table 3 and illustrated in Figure 3.

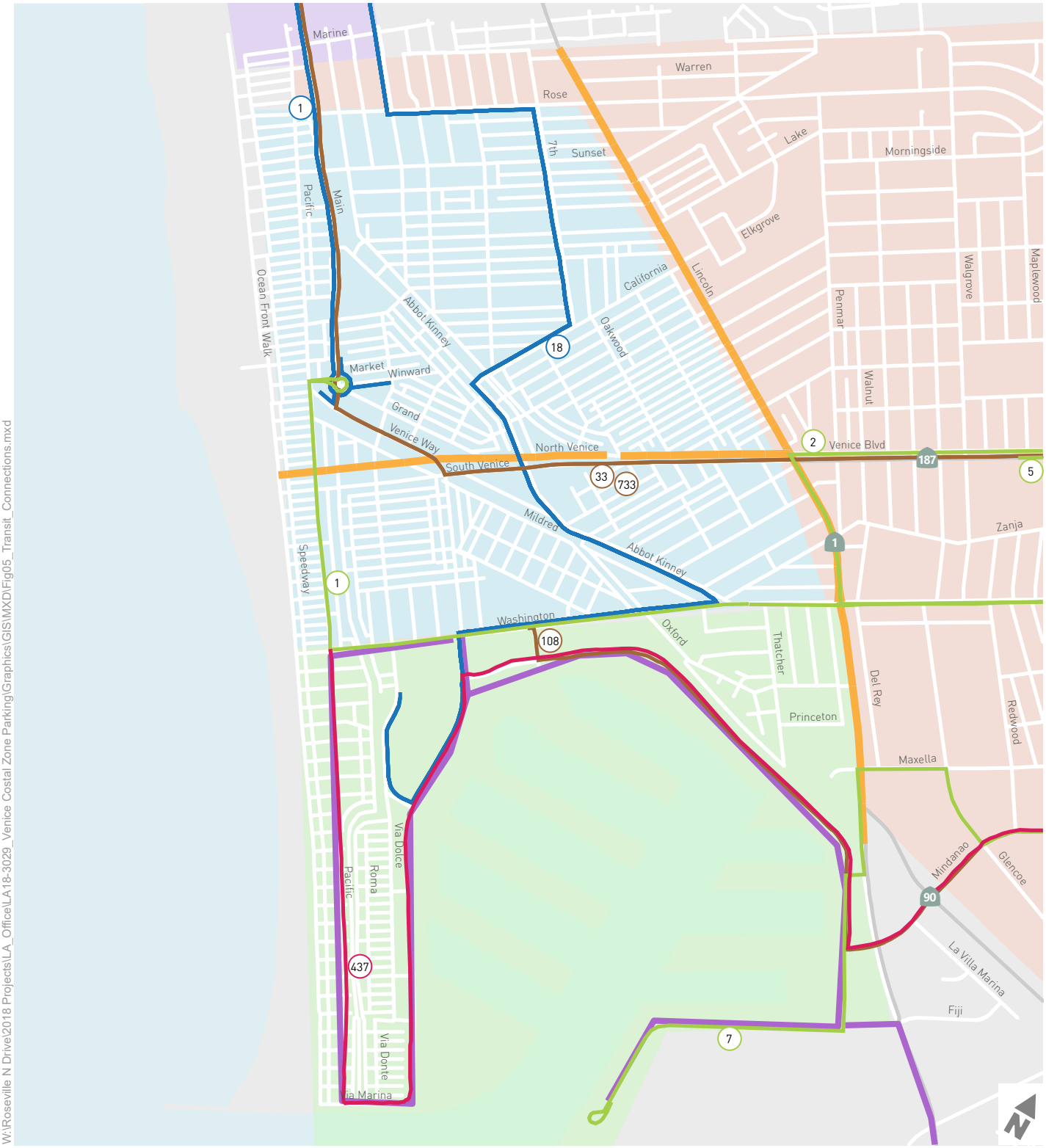
Circuit is a private company that provides a free, app-based shuttle service using a fleet of electric vehicles. In addition to Venice, the company's service area covers Marina Del Rey and Santa Monica. Demand responsive shuttle service could also operate as an extension of public transit.

In March 2019, LADOT initiated LA*now*, an on-demand shuttle pilot on the Westside. LA*now* is an app-based on-demand shuttle service that serves the Venice Coastal Zone north of Washington Boulevard and extends east to the Expo Line Palms station and south to Playa Vista.

**Table 3: On-Demand Shuttle Service in the Venice Coastal Zone**

| Operator | Service Area | Weekday Hours of Operation | Weekend Hours of Operation |
|---|---|---|---|
| Circuit Venice | Santa Monica City Line south to Washington Boulevard, Pacific Ocean east to Lincoln Boulevard | 12:30 pm – 9:00 pm | 12:30 pm – 9:00 pm |
| LA*now* *(LADOT)* | Santa Monica City Line south to Washington Boulevard, Pacific Ocean east to Palms Expo Line Station and Playa Vista | 6:00 am – 7:00 pm | - |
| Circuit Santa Monica | Montana Avenue south to Los Angeles City Line, Pacific Ocean east to 4th Street | 11:30 am – 9:00 pm | 11:30 am – 9:00 pm |
| Circuit Marina del Rey | Washington Boulevard south through the marina, Pacific Ocean east to Lincoln Boulevard | 12:00 pm – 9:00 pm | 12:00 pm – 9:0 0pm |

Sources: Circuit Ride service areas and hours of operation accessed from http://thefreeride.com/
LA*now* service area and hours of operation accessed from https://www.ladottransit.com/lanow/

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Culver City Bus
Big Blue Bus
Comprehensive Transit Enhanced Streets
Metro Bus
LADOT Commuter Express
**Playa Vista Beach Shuttle Regular Route**

Transit Service Areas
Circuit Ride Marina Del Rey
Circuit Ride Santa Monica
Circuit Ride Venice
LANow

Transit Line Route Number

Figure 3

## Transit Connections

# 2.4 Parking Supply

## 2.4.1 On-Street Parking

There are approximately 12,157 on-street parking spaces within the study area. This includes 329 metered spaces, 116 additional marked spaces, and 11,712 unmarked curb spaces, as summarized in Table 4. Most metered on-street parking spaces are located along commercial corridors, such as Lincoln Boulevard and Washington Boulevard. This inventory of un-marked spaces is an estimate. For this study, the length of unmarked curb was measured and divided by 20 feet per space to estimate a count of potential parking spaces. This inventory also includes curb space currently designated as loading zones and other zones where parking is currently prohibited. Discussion and analysis of parking occupancy includes only spaces without parking restrictions in place at the time data was collected.

On-street parking throughout the Venice Coastal Zone is regulated by a mixture of restrictions, time limits, and parking payment technologies. Aside from weekly street sweeping and some segments where overnight parking is prohibited for vehicles over 7 feet high or 22 feet long, many residential streets provide unrestricted parking. Mixed-use and commercial corridors have a variety of restrictions, including:

- 15-minute, 30-minute, 1-hour, 2-hour, 3-hour, or 4-hour parking
- No parking during one or both peak periods (7 am - 9 am, 3 pm - 7 pm or 4 pm - 6 pm)
- No overnight parking
- Overnight parking only
- Passenger or commercial loading only
- Passenger loading only during school pick-up and drop-off times (6:30 am-9:30 am, 1:30 pm-4 pm)
- No parking 7 am - 5 pm school days
- Sightseeing Bus/Van Zone only
- Taxi Zone (including pick-up and drop-off areas for ride-share, shuttle service, and transit)

**Table 4: Parking Supply in the Venice Coastal Zone Study Area**

| Parking Type | Number of Spaces |
|---|---|
| On-Street Marked (Metered) | 329 |
| On-Street Marked (Not metered) | 116 |
| On-Street Unmarked | 11,712 |
| On-Street Subtotal | 12,157 |
| Off-Street Public Lots | 1,563 |
| Off-Street Private Lots | 571 |
| Off-Street Lots Subtotal | 2,134 |
| **Total** | **14,291** |

Source: Fehr & Peers, 2019.

LADOT operates the 329 on-street meters throughout the Venice Coastal Zone. These metered spaces have time restrictions of 30 minutes, 1 hour, and 2 hours, and prices of $0.25 per 30 minutes, $1 per hour, and $2 per hour. Of these 329 on-street meters, 190 are single-space, smart parking meters, while the other 139 spaces are managed by multi-space pay stations. All meters accept credit cards. Analysis of meter transactions shows that the median daily revenue was $4.79, or $1,747 per year per meter, as shown in Table 5.

**Table 5: Single-Space Meter Revenue in the Venice Coastal Zone Study Area**

| | Per Day | Per Year |
|---|---|---|
| Minimum | $0.67 | $246 |
| Median | $4.79 | $1,747 |
| Maximum | $10.05 | $3,669 |

Note: Calculated from average daily revenue per meter from 190 single-space meters in the study area. Excludes revenue from multi-space pay stations covering 139 spaces.
Sources: IPS Single Space Meter Transactions Zones 541 Venice and 562 Washington Pacific from LADOT, January 1, 2017 – December 1, 2017. Fehr & Peers, 2019.

Meter revenue also varies seasonally, with January generating the lowest total revenue across the Venice Coastal Zone and July generating the highest total revenue, as shown in Table 6 and Figure 4.

**Table 6: Single-Space Meter Revenue by Month in the Venice Coastal Zone Study Area**

| Month | Total | Average Daily |
|---|---|---|
| January | $19,362 | $624.58 |
| February | $17,869 | $638.16 |
| March | $24,171 | $779.71 |
| April | $25,003 | $833.42 |
| May | $31,077 | $1,002.47 |
| June | $32,215 | $1,073.83 |
| July | $35,557 | $1,146.99 |
| August | $34,403 | $1,109.78 |
| September | $31,609 | $1,053.65 |
| October | $22,088 | $712.53 |
| November | $20,062 | $668.75 |

Note: Calculated from average daily revenue for all 190 single-space meters in the study area. Excludes revenue from multi-space pay stations covering 139 spaces. December revenue not included.
Sources: IPS Single Space Meter Transactions Zones 541 Venice and 562 Washington Pacific from LADOT, January 1, 2017 – December 1, 2017. Fehr & Peers, 2021.

*Figure 4: Average Daily Revenue for Single-Space Meters by Month in the Venice Coastal Zone*


Note: Calculated from average daily revenue for all 190 single-space meters in the study area. Excludes revenue from multi-space pay stations covering 139 spaces. December revenue not included.
Sources: IPS Single Space Meter Transactions Zones 541 Venice and 562 Washington Pacific from LADOT, January 1, 2017 – December 1, 2017. Fehr & Peers, 2021.

### 2.4.2 Off-Street Parking

Approximately 2,134 parking spaces are provided in 23 off-street parking lots in the study area, as shown in Figure 5 and Table 7. This includes 1,563 spaces in public lots and 571 spaces in privately operated lots that serve beachgoers and other visitors to the Venice Coastal Zone. These privately operated lots were included in the study because they advertise themselves to the public as parking for beach access and, therefore, contribute to available parking for beachgoers. It is important to note, however, that the supply of parking available in private lots may be dedicated to existing commercial uses. The largest parking areas are the three public lots located at the beach and the additional City-owned lots in the median between North and South Venice Boulevards. Together, these four locations account for 1,300 parking spaces. The three beach lots are owned by the County of Los Angeles, while the lots located between North and South Venice Boulevards are owned by LADOT and operated by a private contractor.


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| | Public Lot | |
|---|---|---|
| 1 | LADOT Lot 613 | 38 |
| 2 | LADOT Lot 616 | 29 |
| 3 | LADOT Lot 617 | 26 |
| 4 | LADOT Lot 759 | 66 |
| 5 | LADOT Lot 760 | 50 |
| 6 | LADOT Lot 740 | 40 |
| 7 | 1 Rose Avenue | 243 |
| 8 | 2100 Ocean Front Walk | 343 |
| 9 | Washington Blvd Beach Lot | 380 |
| 10 | LADOT Lots 701 & 731* | 334 |
| 11 | LADOT Lot 761 | 14 |

| | Private Lot | |
|---|---|---|
| 12 | 2 Rose Avenue | 23 |
| 13 | 613 Speedway | 52 |
| 14 | 801 Ocean Front Walk | 52 |
| 15 | 1501 Ocean Front Walk | 49 |
| 16 | 1601 Ocean Front Walk | 61 |
| 17 | 49 Market Street | 45 |
| 18 | 29 Windward Avenue | 66 |
| 19 | 46 Market Street | 47 |
| 20 | 105 Rose Avenue | 10 |
| 21 | 1000 Electric Avenue | 45 |
| 22 | 1418 Electric Avenue | 44 |
| 23 | Windward Circle | 77 |

**Public Lot Subtotal 1,563**

**Private Lot Subtotal 571+**

**Total Off-Street Supply 2,134+**

Public Off-Street Lot

Private Off-Street Lot

*Supply is subject to change

+Private lot subtotal may include spaces already allocated and not available for general use

Figure 5

## Off-Street Lots

**Table 7: Off-Street Parking Supply in the Venice Coastal Zone Study Area**

| Location | | Supply | Pricing |
|---|---|---|---|
| ***Public Lots*** | | | |
| 1 | LADOT Lot 613 | 53 | $0 |
| 2 | LADOT Lot 616 | 29 | $0 |
| 3 | LADOT Lot 617 | 22 | $0 |
| 4 | LADOT Lot 759 | 66 | $0.75 each 15 minutes, Friday & Saturday 6 pm – 2 am<br>$0.50 each 15 minutes, all other times |
| 5 | LADOT Lot 760 | 50 | $0.75 each 15 minutes, Friday & Saturday 6 pm – 2 am<br>$0.50 each 15 minutes, all other times |
| 6 | LADOT Lot 740 | 41 | $5 per day, 7 am – 9 am & 4 pm – 8 pm, May to September<br>$12-$25 per day, 9 am – 4 pm, May to September<br>$1 per hour, 9 am – 6 pm or $4 per 10 hours, September to April |
| 7 | LA County: 1 Rose Ave. Beach Lot | 243 | $4 per day, non-summer weekday<br>$5 per day, non-summer weekend<br>$5 per day, summer weekday<br>$9 per day, summer weekend |
| 8 | LA County: 2100 Ocean Front Walk Beach Lot | 343 | $6 per day, non-summer weekday<br>$9 per day, non-summer weekend<br>$9 per day, summer weekday<br>$18 per day, summer weekend |
| 9 | LA County: Washington Blvd. Beach Lot | 380 | $4 per day, non-summer weekday<br>$5 per day, non-summer weekend<br>$5 per day, summer weekday<br>$9 per day, summer weekend |
| 10 | LADOT Lots 701 & 731 | 327[1] | $5-$25 per day, based on time of year, demand, and weather |
| 11 | LADOT Lot 761 | 14 | $1 per hour, non-summer<br>$2 per hour, summer |
| Public Subtotal | | 1,563 | |
| ***Private Lots*** | | | |
| 12 | 2 Rose Avenue | 23 | * |
| 13 | 613 Speedway | 52 | * |
| 14 | 801 Ocean Front Walk | 52 | * |
| 15 | 1501 Ocean Front Walk | 49 | * |
| 16 | 1601 Ocean Front Walk | 61 | * |
| 17 | 49 Market Street | 45 | * |
| 18 | 29 Windward Avenue | 66 | * |
| 19 | 46 Market Street | 47 | * |
| 20 | 105 Rose Avenue | 10 | * |
| 21 | 1000 Electric Avenue | 45 | * |

**Table 7: Off-Street Parking Supply in the Venice Coastal Zone Study Area**

| Location | | Supply | Pricing |
|---|---|---|---|
| 22 | 1418 Electric Avenue | 44 | * |
| 23 | Windward Circle | 77 | * |
| Private Subtotal | | 571 | |
| Total Off-Street Supply | | 2,134 | |

1. Data received from LADOT in August 2021 indicates that Lots 701 & 731 have 346 parking spaces. The parking analysis completed for this study accounts for 327 parking spaces as shown in the table which undercounts the parking utilization by 19 spaces.
*Pricing in private lots varies by time of year and demand but typically costs between $10 and $25 per day.
Source: Fehr & Peers, 2019.

## 2.5 Parking Paradigm Shift

The way we travel is changing. The introduction of transportation network companies (TNCs), or ride-share services, and electric scooters have transformed our streetscapes and sidewalks. Mobility choice has become increasingly important with a growing preference against driving alone. To that end, the fundamental idea of parking is undergoing a paradigm shift—a change in how a problem is perceived and solutions evaluated.[7] The new paradigm recognizes the need to adjust parking planning practices as transportation and land use conditions evolve. A report by the Victoria Transport Policy Institute states the following:

> *The old paradigm assumes that parking should be abundant and free at most destinations. It strives to maximize supply and minimize price. The old paradigm assumes that parking lots should almost never fill, that parking facility costs should be incorporated into the costs of buildings or subsidized by governments, and that every destination should satisfy its own parking needs.*
>
> *The new paradigm strives to provide optimal parking supply and price. It considers too much supply as harmful as too little, and prices that are too low as harmful as those that are too high. The new paradigm strives to use parking facilities efficiently. It considers full lots to be acceptable, provided that additional parking is available nearby, and that any spillover problems are addressed. It emphasizes sharing of parking facilities between different destinations. It favors charging parking facility costs directly to users, and providing financial rewards to people who reduce their parking demand.*

The old paradigm focuses on expanding parking supply. The new paradigm uses parking management strategies to better utilize existing supply. Effective parking management implementation requires

[7] Litman, T. (2016). *Parking management: strategies, evaluation and planning*. Victoria, BC: Victoria Transport Policy Institute.

expanding the range of options and impacts considered during planning. Table 8 compares the old and new parking paradigms.

**Table 8: Comparison of Old and New Parking Paradigms**

| Old Parking Paradigm | New Parking Paradigm |
|---|---|
| "Parking problem" means inadequate parking supply. | There can be many types of parking problems, including inadequate or excessive supply, too low or high prices, inadequate user information, and inefficient management. |
| Parking should generally be provided free, funded indirectly, through rents and taxes. | As much as possible, users should pay directly for parking facilities. |
| Parking should be available on a first-come basis. | Parking should be regulated to favor higher priority uses and encourage efficiency. |
| Parking requirements should be applied rigidly, without exception or variation. | Parking requirements should reflect each particular situation and should be applied flexibly. |
| Innovation faces a high burden of proof and should only be applied if proven and widely accepted. | Innovations should be encouraged, since even unsuccessful experiments often provide useful information. |
| Parking management is a last resort, to be applied only if increasing supply is infeasible. | Parking management programs should be widely applied to prevent parking problems. |
| "Transportation" means driving. Land use dispersion (sprawl) is acceptable or even desirable. | Driving is just one type of transport. Dispersed, automobile-dependent land use patterns can be undesirable. |

Source: Litman, T. (2016). *Parking Management: Strategies, Evaluation and Planning*. Victoria, BC: Victoria Transport Policy Institute.

# Part III: Data, Analysis, and Findings

## 3.1 Methodology

Two key metrics are used in this report to measure the operation of parking in Venice: parking availability and parking duration. Parking availability is measured by occupancy rate—the number of vehicles parked during a given time period divided by the total number of spaces. On-street parking occupancies of 85-90% are usually considered the highest acceptable target since someone looking for a space will not find an empty one easily. Occupancies above 100% are possible, when vehicles park illegally or in unofficial spaces. In this study, occupancies above 100% are also possible because unmarked on-street parking supply is an estimate based on measurements of the curb and an assumed 20 feet per space (although many vehicles require less than 20 feet of curb space to park). High occupancies in one area combined with lower occupancies nearby indicate an opportunity for parking management.

Parking availability relates to the level of parking utilization at a specific time and day. Occupancy and availability are reported for on-street parking supply and off-street parking supply. The Parking Analysis Zones in this report combine both on-street and off-street parking supply.

Duration is the length of time a car remains in a given parking space and can be estimated from the partial license plate information. Duration data can be used to understand parking behavior in order to redefine time restrictions and parking fees. Analyzing parking duration can help identify whether there are different parking behaviors in different areas, and across different time periods.

## 3.2 Existing Parking Demand

On average, an automobile is parked 23 hours each day across several parking spaces each week. On-street parking (otherwise known as curbside parking) and off-street parking (such as surface parking lots and parking structures) make up the total number of parking spaces available in a given area. Competition for existing parking spaces and other parking conflicts are among the most common problems facing planners. Such problems can be often defined either in terms of supply (i.e., too few spaces are available) or in terms of management (i.e., available facilities are used inefficiently and should be better managed). Efficient management of on- and off-street parking can significantly reduce the number of parking spaces required in a particular situation, providing a variety of economic, social, and environmental benefits. This study divides the Venice Coastal Zone into nine Parking Analysis Zones, examining parking demand for those areas in terms of availability and duration.

### 3.2.1 On-Street Parking

There are approximately 12,157 on-street parking spaces within the study area, comprising 329 metered spaces, 116 additional marked spaces, and 11,712 unmarked curb spaces. Maps depicting on-street parking occupancy and availability are provided for non-summer and summer data collection for both weekday and weekend (Appendix A). Analysis of on-street parking demand throughout the Venice Coastal Zone indicates little difference between summer and non-summer patterns of occupancy on weekdays, which experience the lowest overall occupancy and highest availability of the time periods studied. Likely reflecting longer daylight hours, occupancy remains higher on some street segments later into the evening during the summer. Summer weekends experience the highest overall occupancy and the lowest availability, while non-summer weekends represent a midpoint. This section will therefore focus on describing conditions on non-summer weekend days as the design scenario for parking management recommendations, with some information on significant differences between weekday and summer weekend conditions.

#### *i On-Street Parking Availability*

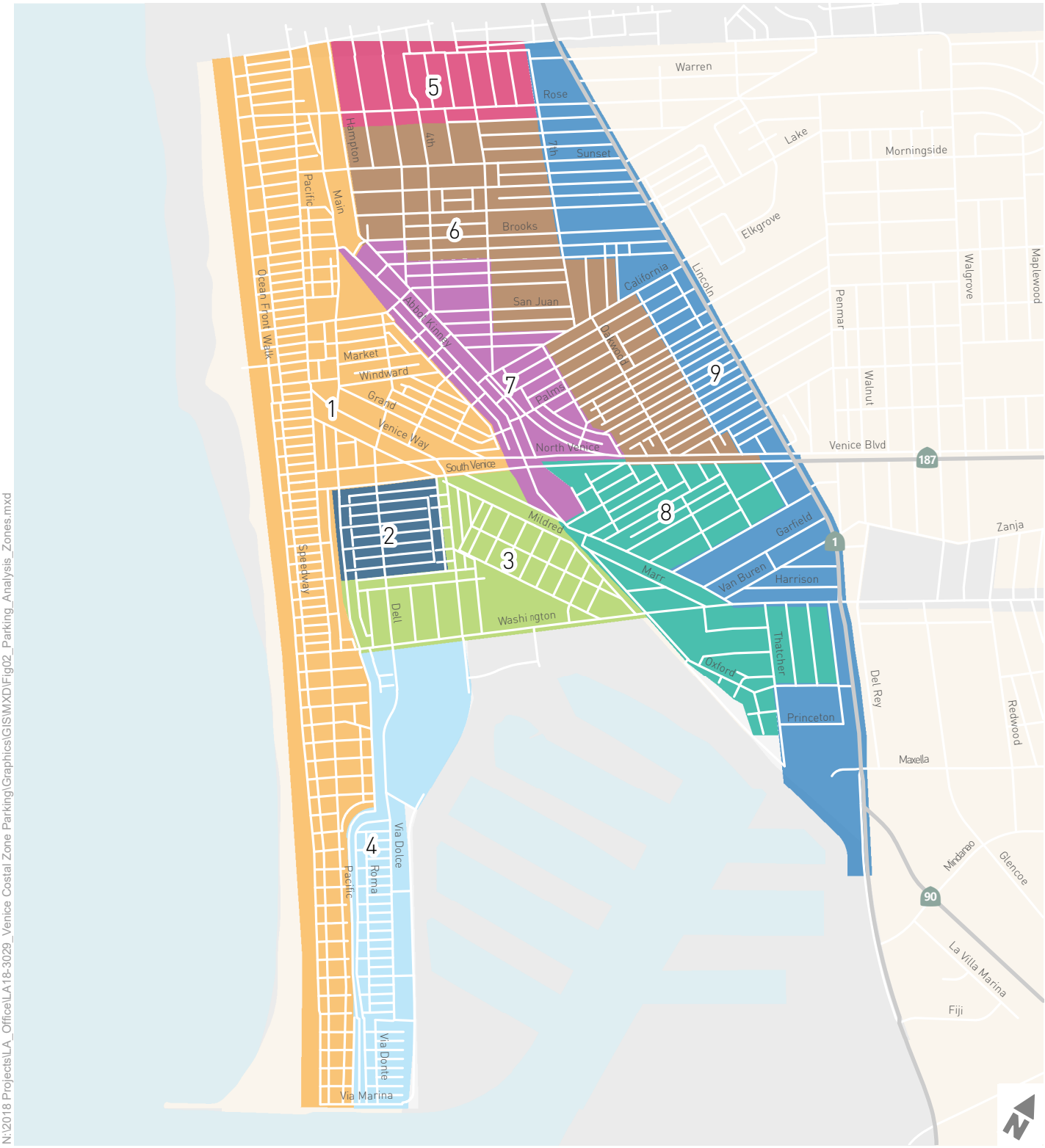
Across all time periods analyzed, streets closest to the beach experience the highest rates of occupancy, including the residential and mixed-use streets between Pacific Avenue, Abbot Kinney Boulevard, and North Venice Boulevard. Mixed-use corridors—including Rose Avenue, Pacific Avenue, Main Street, Abbot Kinney Boulevard, and Venice Boulevard—experience near 100% occupancy throughout the majority of the day across all study periods. Only Lincoln and Washington Boulevards remain less than fully occupied, with considerable availability throughout most time periods (summer weekends are the one exception, when more of Washington Boulevard experiences near 100% occupancy). Demand along Lincoln Boulevard is generally consistent and not affected by seasonal changes in demand or even differences between weekdays and weekend days. Overnight, these mixed-use corridors experience lower occupancy than adjacent residential streets. Across all time periods, Lincoln Boulevard and the residential area of Oxford Triangle experience the lowest occupancy and the highest availability of on-street parking. Because of their distance from the beach, the parking demand in these areas are least affected by beachgoers looking for parking.

Demand for parking changes with the seasons. On weekends during the summer, by 10 am, demand begins to spill into the residential neighborhoods east of Hampton Drive. By noon during summer weekends, parking demand has spread east, as far as 7th Avenue. At 10 am on non-summer weekends, demand is mostly contained within the Beach Impact Zone and along Abbot Kinney Boulevard. At 12 pm, parking remains contained within a block of Abbot Kinney Boulevard.

It is important to recognize that the beach and mixed-use corridors create demand for parking that can spill over into adjacent residential streets. In order to understand the demand for parking near key destinations, including the beach and mixed-use corridors in the study area, on-street parking occupancy has been aggregated into nine Parking Analysis Zones, as shown in Figure 6. The nine zones were selected to account for land use patterns, street network operations, and places of common interest. The nine zones are as follows:

1. Beach Impact Zone Parking Analysis Zone
2. Venice Canals Parking Analysis Zone
3. Washington Commercial Parking Analysis Zone
4. Ballona Grand Canal Parking Analysis Zone
5. Rose Commercial Parking Analysis Zone
6. Oakwood-Milwood-Southeast (SE) Venice Parking Analysis Zone
7. Abbot Kinney Commercial Parking Analysis Zone
8. Oxford Triangle Parking Analysis Zone
9. Lincoln Commercial Parking Analysis Zone

The Venice Canals Parking Analysis Zone was excluded from this parking analysis because that zone does not include any on-street parking. Maps depicting on-street occupancy and availability in the Parking Analysis Zones are provided for non-summer and summer data collection, across weekday and weekend time periods in Appendix B.

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Parking Analysis Zone

| | | | |
|---|---|---|---|
| 1 | Beach Impact Zone | 6 | Oakwood-Millwood-SE Venice |
| 2 | Venice Canals | 7 | Abbot Kinney Commercial |
| 3 | Washington Commercial | 8 | Oxford Triangle |
| 4 | Ballona Grand Canal | 9 | Lincoln Commerical |
| 5 | Rose Commercial | | |

Figure 6

## Parking Analysis Zones

Table 9 shows on-street occupancy and availability by Parking Analysis Zone on a non-summer weekend day. While the Beach Impact Zone, Rose Commercial, and Abbot Kinney Commercial Parking Analysis Zones sustain high occupancy throughout the day, availability remains during all time periods throughout the rest of the Venice Coastal Zone. The Beach Impact Zone has the highest utilization of all the parking analysis zones, sustaining more than 100% utilization throughout the day. Such utilization means that visitors that drive to the area are unlikely to find an available space and may contribute to conflicts with pedestrians and other active users as they cruise for parking on residential streets. The Rose Commercial Zone operates close to optimally throughout the day, experiencing between 79% and 84% utilization. At such rates of utilization, parking supply is being utilized, while vehicles entering the area are able to find a space near their desired destination relatively easily. The Abbot Kinney Commercial Parking Analysis Zone operates slightly higher, ranging from 81% to 96% throughout the day. This means that during much of the day, as in the Beach Impact Zone, drivers are unlikely to easily find a space near their desired destination. They may cruise through the neighborhood multiple times in the hope that a space will become available.

For beach access, the Washington Commercial Parking Analysis Zone includes the most availability. This corridor is underutilized and can accommodate more vehicles throughout the day. The same is true of the Lincoln Commercial Parking Analysis Zone, whose utilization ranges from 58% to 64% throughout the day. This corridor can accommodate higher parking demand. Most residential zones, including the Ballona Grand Canal, Oakwood-Milwood-SE Venice, and Oxford Triangle Parking Analysis Zones maintain sufficient levels of available parking to serve residents and their guests, with excess supply that is underutilized.

**Table 9: On-Street Parking Occupancy and Availability by Parking Analysis Zone in the Venice Coastal Zone (Non-Summer Weekend)**

| | Parking Analysis Zone | 8-10 am | 10 am-12 pm | 12-2 pm | 2-4 pm | 4-6 pm | 6-8 pm |
|---|---|---|---|---|---|---|---|
| 1 | Beach Impact Zone | 101% | 103% | 105% | 106% | 105% | 96% |
| 2 | Venice Canals | - | - | - | - | - | - |
| 3 | Washington Commercial | **51%** | **49%** | **52%** | **54%** | **61%** | **63%** |
| 4 | Ballona Grand Canal | **71%** | **78%** | **78%** | **77%** | **72%** | **64%** |
| 5 | Rose Commercial | 82% | 84% | 83% | **79%** | **80%** | **79%** |
| 6 | Oakwood-Milwood-SE Venice | **68%** | **65%** | **71%** | **74%** | **70%** | **73%** |
| 7 | Abbot Kinney Commercial | 81% | 88% | 96% | 94% | 89% | 82% |
| 8 | Oxford Triangle | **61%** | **62%** | **64%** | **64%** | **61%** | **63%** |
| 9 | Lincoln Commercial | **58%** | **61%** | **59%** | **60%** | **62%** | **64%** |

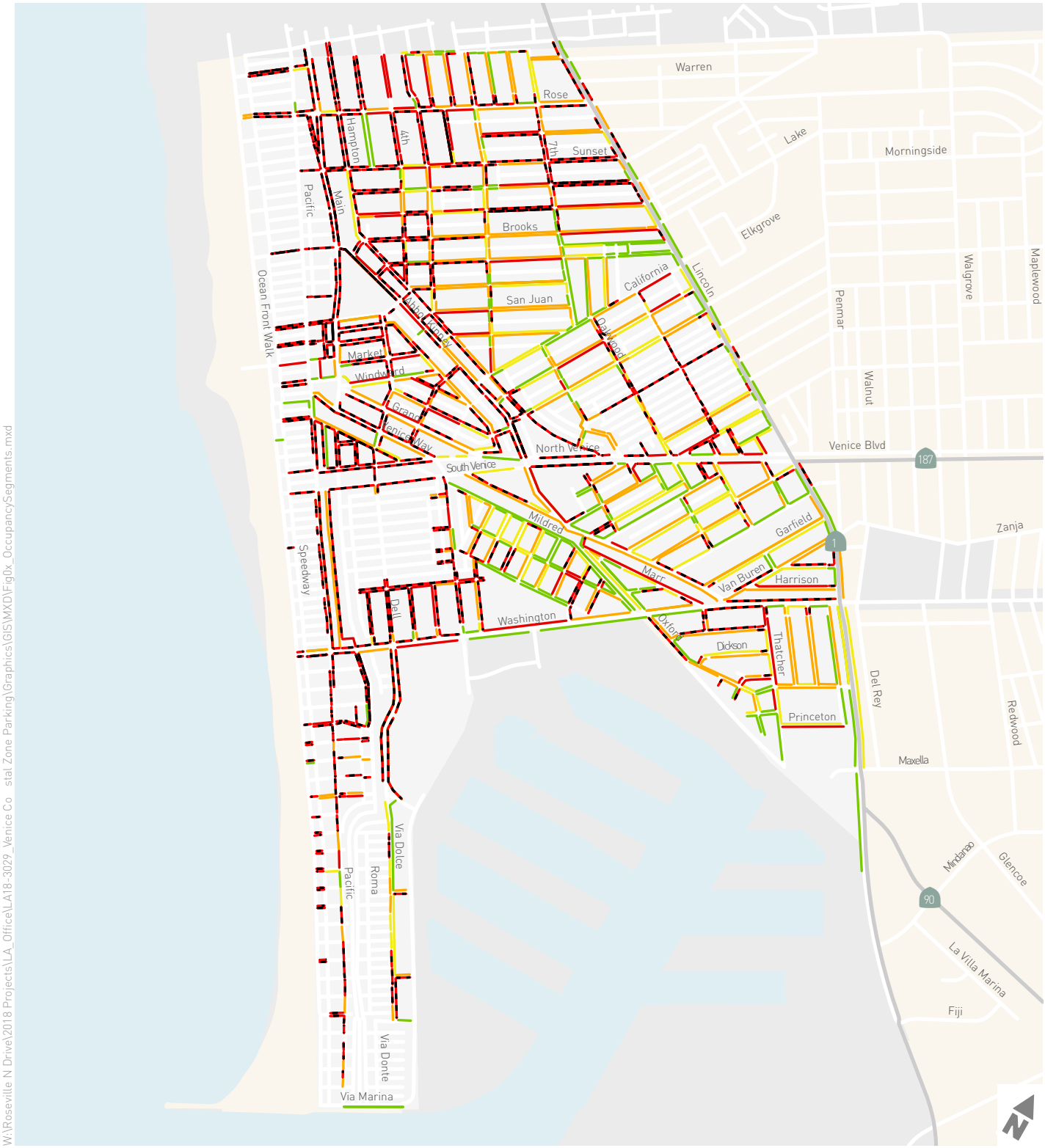
Source: Fehr & Peers, 2019.
**Bold** indicates occupancy less than or equal to 80%.

As shown in Table 10, over 2,000 on-street spaces are available during peak hours of demand across different days of the week and time of year. Throughout the Venice Coastal Zone, approximately 18% of on-street spaces are never utilized. Figure 7 to Figure 9 summarize the number of on-street spaces available during three study periods, representing low, medium, and high availability scenarios. From these figures, we see that most of the underutilized spaces are in the Oxford Triangle and Lincoln Commercial areas, while streets nearest the beach have little or no available spaces. This suggests that off-street lots near the beach may help to manage parking demand for coastal access.

**Table 10: Peak Period On-Street Parking Occupancy and Availability in the Venice Coastal Zone**

| | Non-Summer Weekday | Non-Summer Weekend | Summer Weekend |
|---|---|---|---|
| Occupied Spaces | 8,938 | 9,216 | 9,875 |
| Total Unrestricted Spaces[1] | 11,887 | 11,826 | 12,102 |
| Percent | 75% | 78% | 82% |
| Available | 2,949 | 2,610 | 2,227 |
| Availability Scenario | Medium Availability | Medium Availability | Low Availability |

Notes: 1. The supply of unrestricted spaces changes by time period according to parking restrictions in place on different days of the week.
Source: Fehr & Peers, 2019.

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

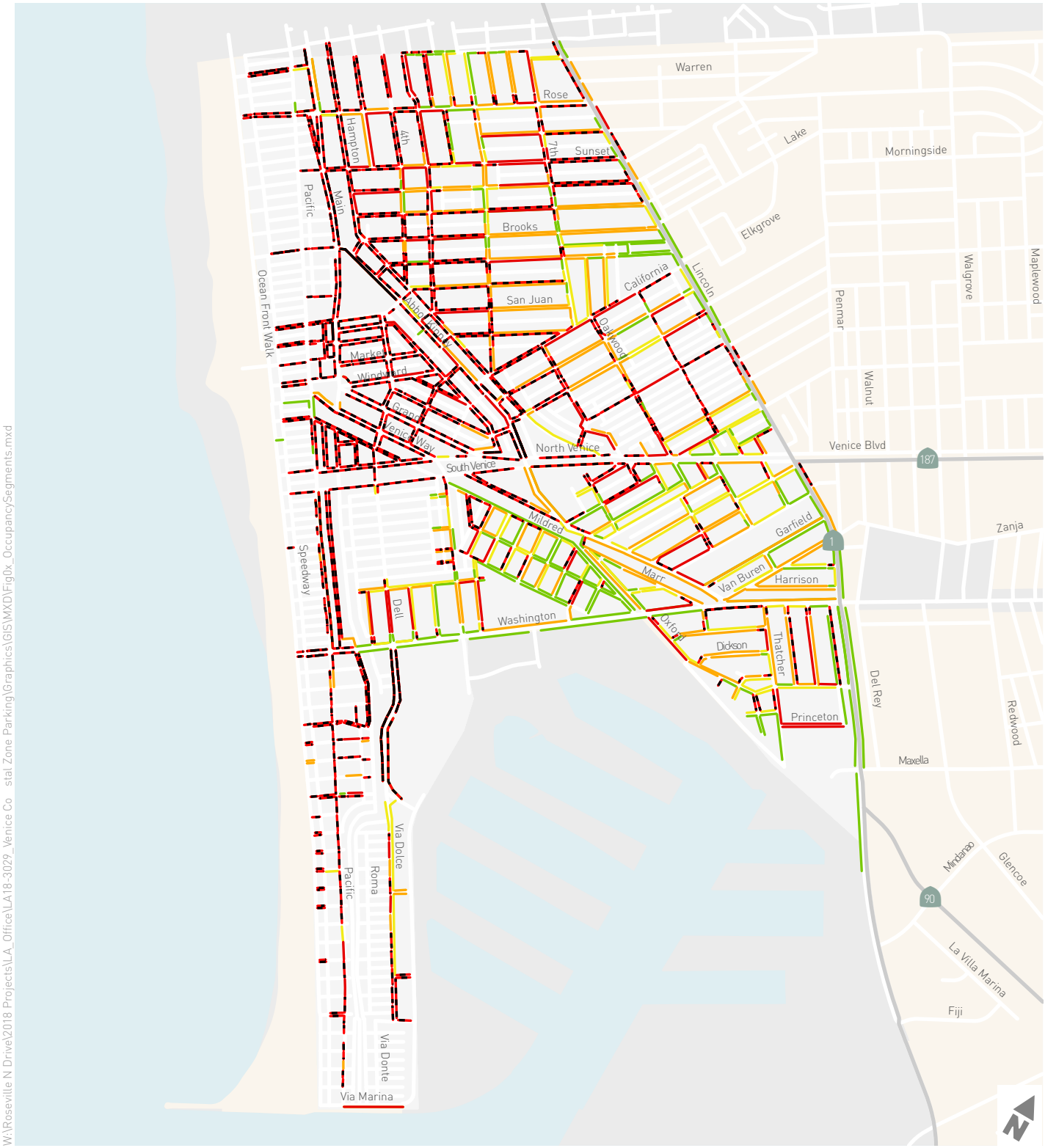
**Non-Summer Parking Occupancy**
**Weekday Parking: 6pm-8pm**

MEDIUM

**2,949**

**Spaces Available**

Figure 7
Peak Period On-Street Parking Occupancy and Availability in the Venice Coastal Zone

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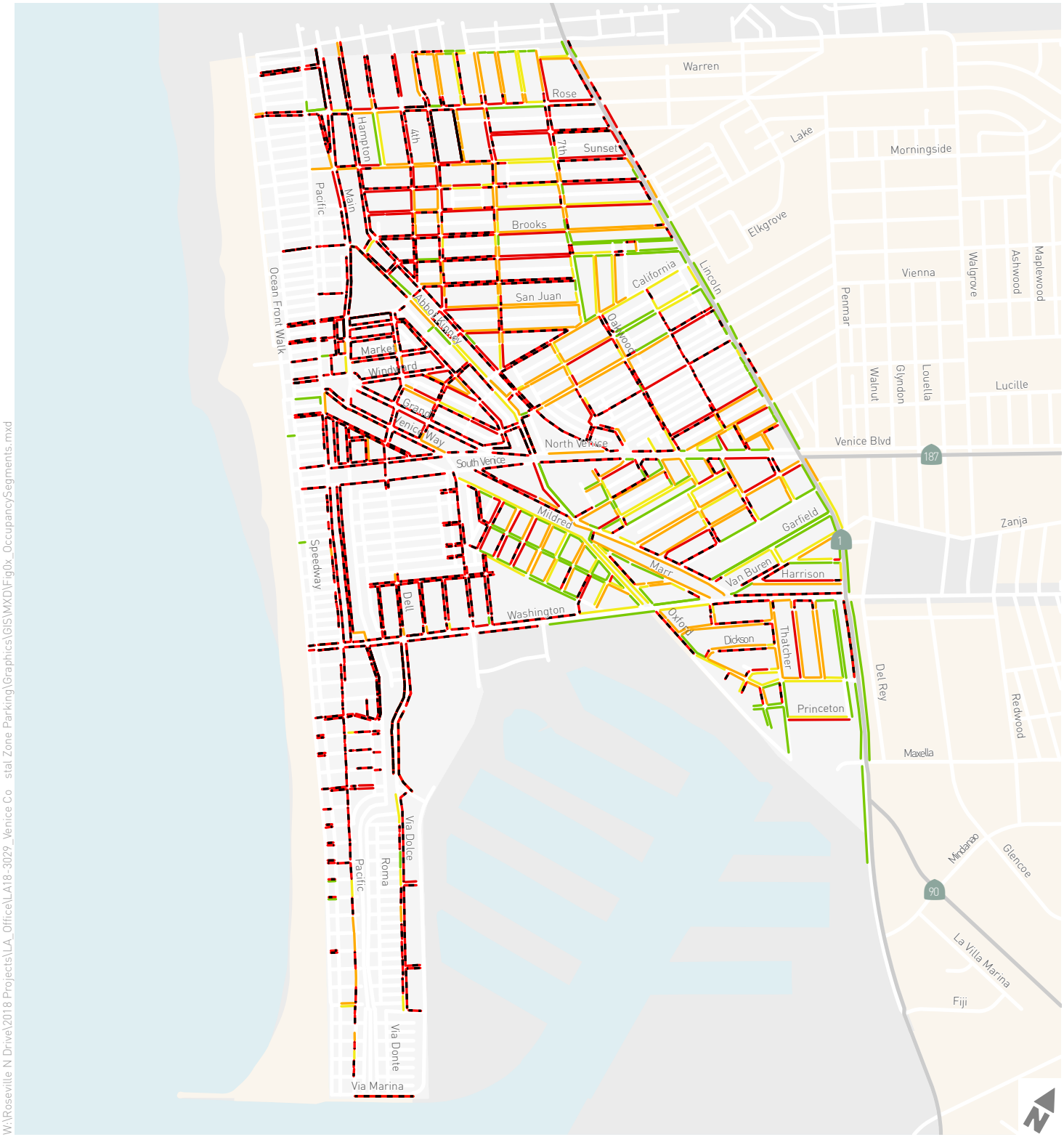
Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

**Non-Summer Parking Occupancy**
**Weekend Parking: 2pm-4pm**

MEDIUM
**2,610**
**Spaces Available**

Figure 8
Peak Period On-Street Parking Occupancy and Availability in the Venice Coastal Zone

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

**Summer Parking Occupancy**
**Weekend Parking: 6pm-8pm**

LOW
**2,227**
**Spaces Available**

Figure 9
Peak Period On-Street Parking Occupancy and Availability in the Venice Coastal Zone

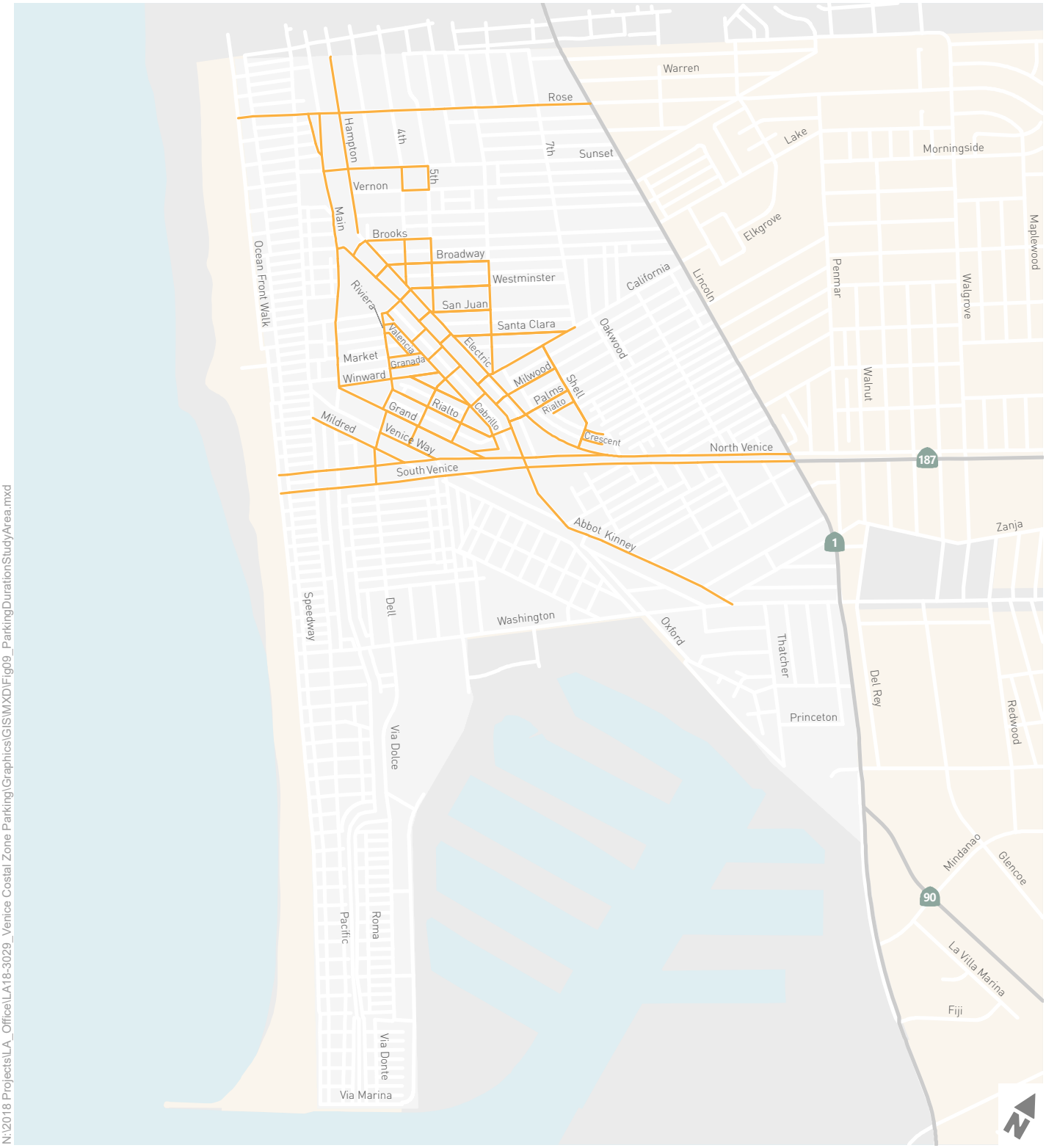
Residential parking utilization was estimated using on-street sweeps on a weeknight during the non-summer and summer study periods. Weeknights were studied to capture parking utilization when businesses are most likely to be closed and residents are most likely to be home. In general, on weeknights, on-street parking utilization is low on mixed-use corridors such as Rose Avenue, Abbot Kinney Boulevard, Venice Boulevard, Washington Boulevard, and Lincoln Boulevard. The residential streets closest to the beach, on either side of Rose Avenue, and in the Oakwood and Millwood neighborhoods have the highest utilization during both non-summer and summer study periods.

As with on-street parking utilization generally, overnight parking utilization varies by season, with summer seeing utilization up to 16 percentage points higher per Parking Analysis Zone as compared to overnight parking utilization during the non-summer study period. This increase in residential utilization was highest in the Rose Commercial Zone, with increases of ten percentage points or more in the Beach Impact Zone, Oakwood-Milwood-Southeast Venice, and Ballona Grand Canal Parking Analysis Zones, as shown in Appendix B.

### *ii On-Street Parking Duration*

The parking demand from various employees, visitors, and residents to Venice have different characteristics. Employees typically occupy a parking space for 6 to 10 hours. Restaurant and retail patrons may range from 30 minutes to several hours depending on the trip purpose. And beachgoers may park for one to eight hours or more. Given the varying nature of parking demand, parking turnover was measured to determine whether existing timing restrictions are serving the needs of various users and if there are vehicles parked curbside that would be better served by an off-street parking facility. For example, Venice visitors circulating for parking for a quick errand may be deterred from making a return trip to the area, and vehicles circulating to find parking can lead to traffic congestion; conflict with pedestrians, bicyclists, and other non-motorized modes; an increase in greenhouse gas emissions; and frustrated drivers.

Parking duration and turnover data for on-street parking was collected on a sample of streets throughout the Venice Coastal Zone, as shown in Figure 10. The sample of streets was selected to represent commercial corridors where longer parking durations can negatively affect adjacent businesses and neighborhood streets where commercial parking demand is likely to spill over and overlap with residential parking and, to some extent, demand for beach parking. Data was collected during the non-summer and summer data collection periods, on weekdays and weekends during each period. This data collection focused on mixed-use corridors and adjacent residential and mixed-use streets, targeting areas where spillover from commercial areas may be a problem and/or where demand from beachgoers may overlap with commercial demand.

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Parking Duration Study Area

Figure 10

## Parking Duration Study Area

The more vehicles that park for short periods of time, the higher the parking turnover, which means more vehicles are served by the same supply of curb space. Vehicles that park for longer periods of time, on the other hand, prevent turnover by occupying curb space. As shown in Table 11, on non-summer weekend days, regardless of time restrictions, 57% of vehicles parked for two hours or less, while 15% parked for eight hours or more. This suggests that a majority of those parking on the street in the study area are visiting retail destinations and that a significant portion of vehicles parking on residential streets represent spillover from mixed-use corridors, such as Abbot Kinney Boulevard. The 15% that park for eight hours or more are likely employees that work in the area, while those parking for between two and eight hours are likely visiting the beach.

Only 9% of the spaces studied have time limit restrictions, but such restrictions are not strongly correlated with parking duration. Even in spots with three- or four-hour limits, for example, almost two-thirds of vehicles parked for two hours or less. Of vehicles parking in spots without time limits, 57% did so for two hours or less. This suggests that on-street parking near the beach and along mixed-use corridors, where data was collected, is primarily used for short-term parking. Where time limits do exist, 50% of parked vehicles violated those restrictions. This suggests that a lack of enforcement may perpetuate the inefficient use of on-street supplies for long-term parking, while off-street supplies go underutilized.

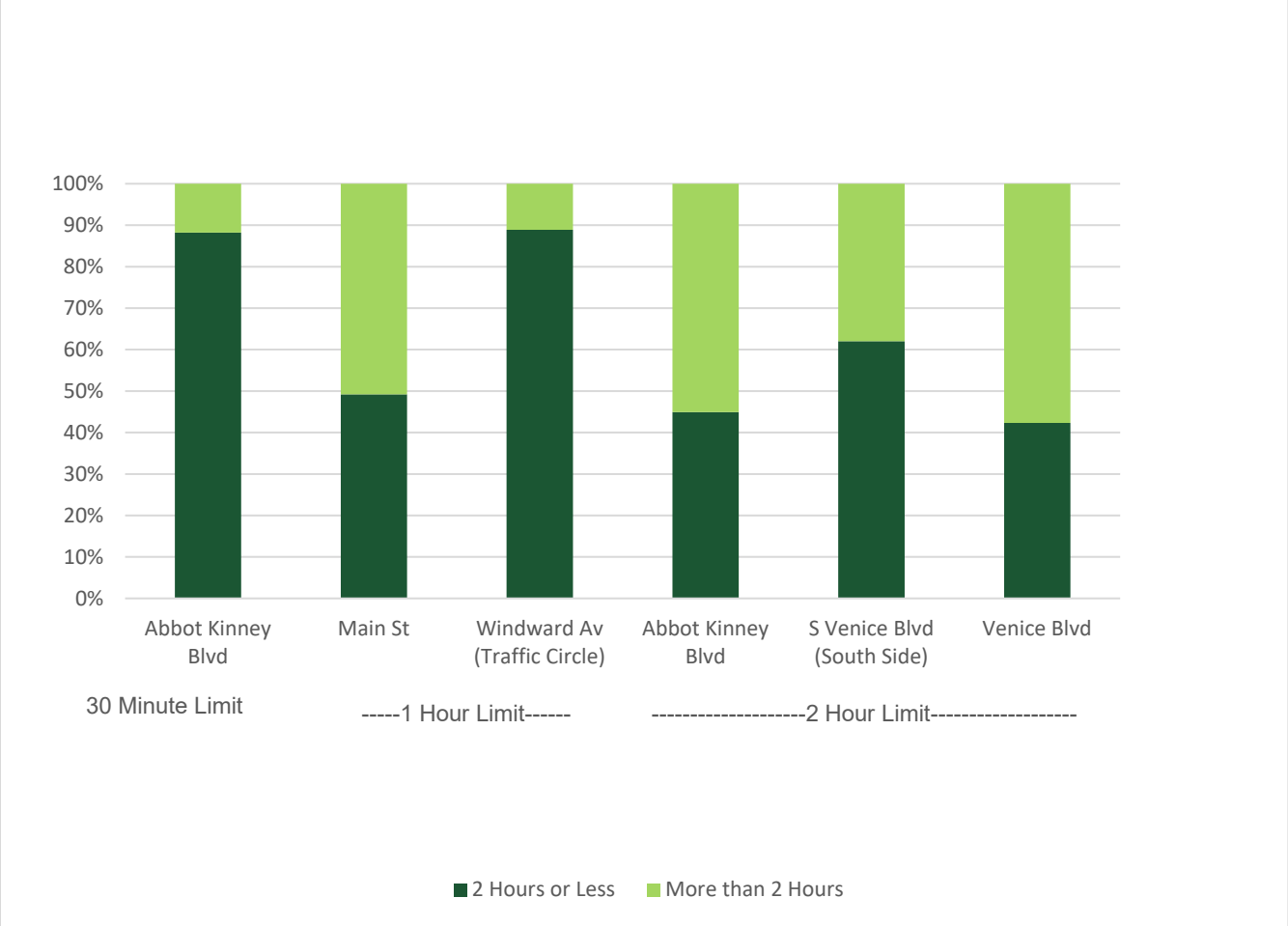
**Table 11: Parking Duration in the Venice Coastal Zone (Non-Summer Weekend)**

| Time Limit | Spaces Studied | 2 Hours | 4 Hours | 6 Hours | 8 Hours | 10 Hours | 12 Hours | 8+ Hours |
|---|---|---|---|---|---|---|---|---|
| 2 Hours or Less | 254 | 51% | 15% | 16% | 6% | 1% | 10% | 18% |
| 3 or 4 Hours | 43 | 66% | 21% | 7% | 2% | 1% | 4% | 6% |
| None | 2,860 | 57% | 19% | 9% | 5% | 3% | 7% | 15% |
| Total | 3,157 | 57% | 19% | 9% | 5% | 3% | 8% | 15% |

Source: Fehr & Peers, 2019.
Grey highlights vehicles parked in violation of posted time limits.

Figure 11 shows the five streets included in this study area that have parking restrictions of 30 minutes, 1 hour, and 2 hours, with a breakdown by percentage of the number of vehicles that parked for 2 hours or less or more than 2 hours on a non-summer weekend day.

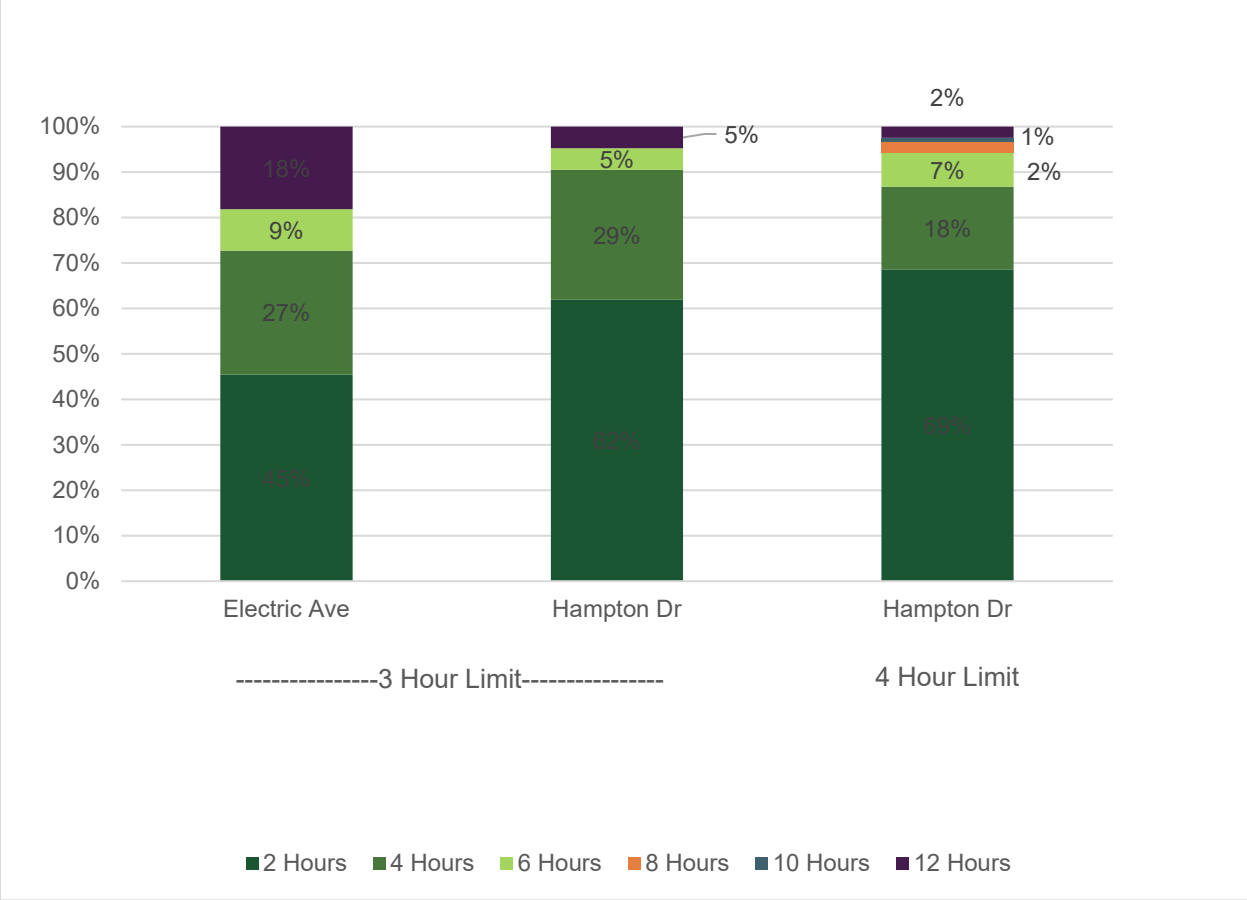
*Figure 11: On-Street Parking Duration by Corridor in the Venice Coastal Zone – Non-Summer Weekend (30-Minute to 2-Hour Time Limits)*




Source: Fehr & Peers, 2019.

Figure 12 shows the two streets included in this study area that have parking restrictions of 3 hours and 4 hours, with a breakdown by percentage of the number of vehicles that parked for varying lengths of time on a non-summer weekend day. This figure suggests that around two-thirds of those parking on Hampton Drive do so for less than the posted time limit. Parking restrictions on Hampton Drive could be reduced to two hours to increase turnover and serve more vehicles.

*Figure 12: On-Street Parking Duration by Corridor in the Venice Coastal Zone – Non-Summer Weekend (3-Hour and 4-Hour Time Limits)*




Source: Fehr & Peers, 2019.

Table 12 shows the 40 streets included in this study area that have no parking restrictions (excluding street sweeping and overnight restrictions), with a breakdown by percentage of the number of vehicles that parked for varying lengths of time on a non-summer weekend day. This table suggests that parking time restrictions could be added to many streets in the study area without affecting many current users. Such restrictions would encourage long-term parkers to use off-street lots or find alternatives, freeing up on-street spaces near commercial corridors for those that are parking for shorter periods of time.

**Table 12: On-Street Parking Duration by Corridor - Non-Summer Weekend (No Time Limits)**

| Street | 0-2 Hours | Up to 4 Hours | Up to 6 Hours | Up to 8 Hours | Up to 10 Hours | Up to 12+ Hours |
|---|---|---|---|---|---|---|
| 4th Ave | 54% | 10% | 10% | 11% | 6% | 10% |
| 5th Ave | 37% | 24% | 11% | 11% | 4% | 13% |
| 6th Ave | 47% | 13% | 13% | 9% | 4% | 15% |
| Abbot Kinney Blvd | 73% | 17% | 5% | 1% | 2% | 1% |
| Altair Place | 19% | 32% | 15% | 12% | 4% | 17% |
| Andalusia Ave | 49% | 13% | 15% | 6% | 5% | 12% |
| Broadway St | 33% | 17% | 17% | 10% | 3% | 20% |
| Brooks Ave | 38% | 23% | 8% | 8% | 6% | 17% |
| Cabrillo Ave | 32% | 24% | 16% | 11% | 2% | 14% |
| California Ave | 44% | 18% | 15% | 6% | 5% | 11% |
| Dell Ave | 45% | 23% | 0% | 18% | 5% | 9% |
| Electric Ave | 52% | 20% | 15% | 6% | 3% | 5% |
| Grand Blvd | 36% | 22% | 10% | 7% | 8% | 17% |
| Hampton Dr | 62% | 20% | 11% | 3% | 1% | 3% |
| Main St | 46% | 21% | 9% | 5% | 2% | 18% |
| Market St | 25% | 18% | 12% | 8% | 10% | 27% |
| Mildred Ave | 37% | 25% | 12% | 10% | 4% | 11% |
| Milwood Ave | 36% | 19% | 23% | 8% | 4% | 10% |
| N Venice Blvd | 84% | 9% | 0% | 6% | 0% | 0% |
| N Venice Blvd (North Side) | 66% | 17% | 4% | 4% | 1% | 8% |
| N Venice Blvd (South Side) | 40% | 24% | 11% | 4% | 6% | 14% |
| Palms Blvd | 36% | 28% | 20% | 8% | 5% | 3% |
| Rialto Ave | 31% | 23% | 11% | 13% | 4% | 18% |
| Riviera Ave | 37% | 27% | 7% | 12% | 5% | 12% |
| Rose Ave | 63% | 16% | 9% | 3% | 2% | 7% |
| S Main St | 26% | 11% | 14% | 9% | 1% | 39% |
| S Venice Blvd | 43% | 21% | 7% | 0% | 4% | 25% |
| S Venice Blvd (South Side) | 60% | 18% | 6% | 3% | 1% | 12% |
| San Juan Ave | 39% | 19% | 13% | 9% | 6% | 15% |
| Santa Clara Ave | 39% | 20% | 14% | 7% | 5% | 15% |
| Shell Ave | 40% | 21% | 11% | 8% | 2% | 18% |
| Strongs Dr | 51% | 25% | 8% | 8% | 1% | 7% |
| Sunset Ave | 60% | 13% | 17% | 3% | 1% | 5% |
| Superba Ave | 29% | 6% | 6% | 12% | 0% | 47% |
| Windward Ave (Traffic Circle) | 89% | 11% | 0% | 0% | 0% | 0% |
| Venice Blvd | 43% | 13% | 28% | 6% | 2% | 7% |

**Table 12: On-Street Parking Duration by Corridor - Non-Summer Weekend (No Time Limits)**

| Street | 0-2 Hours | Up to 4 Hours | Up to 6 Hours | Up to 8 Hours | Up to 10 Hours | Up to 12+ Hours |
|---|---|---|---|---|---|---|
| Venice Way | 41% | 24% | 9% | 10% | 2% | 15% |
| Vernon Ave | 47% | 29% | 12% | 3% | 0% | 9% |
| Westminster Ave | 42% | 19% | 8% | 9% | 4% | 18% |
| Windward Ave | 41% | 21% | 7% | 13% | 5% | 14% |

Source: Fehr & Peers, 2019.

### 3.2.2 Off-Street Parking

In the Venice Coastal Zone, there are a total of 23 off-street parking lots containing approximately 2,134 parking spaces. This includes 1,563 spaces in public lots and 571 spaces in privately operated lots that serve beachgoers and other visitors to the Venice Coastal Zone.

LADOT Lot 613 is located off Venice Boulevard near Oakwood Avenue (#1 in Figure 5). It provides free parking throughout the day and experiences occupancy rates above 80% from 12 pm to 2 pm and 6 pm to 8 pm on non-summer weekend days. Parking occupancy of 80% is considered optimal because at that rate, parking supply is well-utilized while still allowing arriving vehicles to find a space relatively easily. Above 80% occupancy, spaces become harder to find, which may affect operations in the parking lot, including congestion and conflict with pedestrians walking to and from their vehicles. Below 80% occupancy, drivers may find an available space easily, but parking supply—representing valuable public space—is not being used to its full potential. Occupancy rates below 80% indicate that a lot can accommodate increased demand without affecting operations of the facility.

There are four LADOT owned and operated lots along South Irving Tabor Court, just north of Abbot Kinney Boulevard, between Santa Clara Avenue and Venice Boulevard: two of these lots provide free parking throughout the day, while the other two are metered at a rate of $0.50 per 15 minutes most days and $0.75 per 15 minutes on Friday and Saturday nights. Unsurprisingly, the free lots and paid lots experience different occupancy rates. During the non-summer months, the free lots (616 and 617, #2 and #3 in Figure 5) experience near 100% occupancy from 8 am until 4 pm on weekends. By contrast, the two paid lots (759 and 760, #4 and #5 in Figure 5) on South Irving Tabor Court experience occupancy above 80% from 10 am to 4 pm. Of the four lots, Lot 759, located between Santa Clara Avenue and California Avenue, maintains the most availability.

There are two private parking lots that operate in proximity to the four LADOT lots on Irving Tabor Court. One is located west of the LADOT lots, at 1000 Electric Avenue between Broadway Street and Westminster Avenue (#22 in Figure 5); the other is located at 1418 Electric Avenue, at the northwest corner of Electric and Milwood Avenues (#23 in Figure 5). These lots are considerably more expensive than the LADOT lots and their occupancies reflect that fact: during both non-summer and summer months, available parking in

those lots exceeds that in the LADOT lots. The high occupancy of LADOT Lots 616, 617, 759, and 760 suggest that they are priced too low.

LADOT Lot 740 is located off Rose Avenue between South Main Street and Main Street (#6 in Figure 5)). Parking costs $1 per hour, paid at pay stations, from 9 am to 6 pm, and is limited to two hours. The lot experiences peak occupancy (above 80%) from 12 pm to 8 pm on non-summer weekend days. Interestingly, during the summer months, Lot 740 experiences occupancy above 90% from 4 pm to 6 pm on weekdays and sub-optimal occupancy of 80% or less during every other time on weekdays and throughout the weekend. Sub-optimal occupancy in this lot suggests that its two-hour time limit is not serving current demand at the site.

Three lots on the beach are owned and operated by the Los Angeles County Department of Beaches and Harbors. These lots are located at Rose Avenue, Venice Boulevard, and Washington Boulevard (#7, #8, and #9 in Figure 5). On non-summer weekends, these beach lots experience a peak of over 90% from 2 pm to 4 pm but maintain high levels of availability throughout the rest of the day.

LADOT Lots 701 and 731,[8] located in the median between North and South Venice Boulevards, are here analyzed as one facility (#10 in Figure 5) because Lot 701, which is located east of Lot 731 between Dell Avenue and Venice Way/Mildred Avenue, is often closed until Lot 731, located between Pacific and Dell Avenues, fills up. Data collected indicate that, together, these lots are the most underutilized off-street facility in this study. Parking costs vary between $5 and $25 per day, depending on the time of year, demand, and weather. About 70% of parking, or 233 spaces, remain open, on average, throughout the day on a non-summer weekend. This means that these lots can accommodate a shift in demand from on-street spaces to off-street spaces when used in tandem with parking demand management strategies such as preferential parking districts, revised time limits, coordinated valet, and additional metering and enforcement.

Maps depicting off-street parking occupancy and availability are provided for non-summer and summer data collection, across weekday and weekend time periods in Appendix C.

### *i Off-Street Parking Availability*

Table 13 shows occupancy throughout the day for all off-street lots included in the study on non-summer weekend days. During the non-summer months, private lots near Windward Avenue (#15, #16, #17, #18, and #19) have their peak during the lunch hour from 12 pm to 2 pm on weekdays and for slightly extended hours—from 10 am to 4 pm—on weekends. During the summer months, these same lots have the same peak from 12 pm to 2 pm on weekdays but an expanded peak on weekends: from 10 am to 6 pm.

[8] As of the date of this report, Lot 731 is the site of a pending housing project. Lot 731 is currently a surface parking lot with 196 vehicle spaces. If approved, the development will be required to provide a minimum of 196 spaces for public access to replace the parking that currently exists onsite.

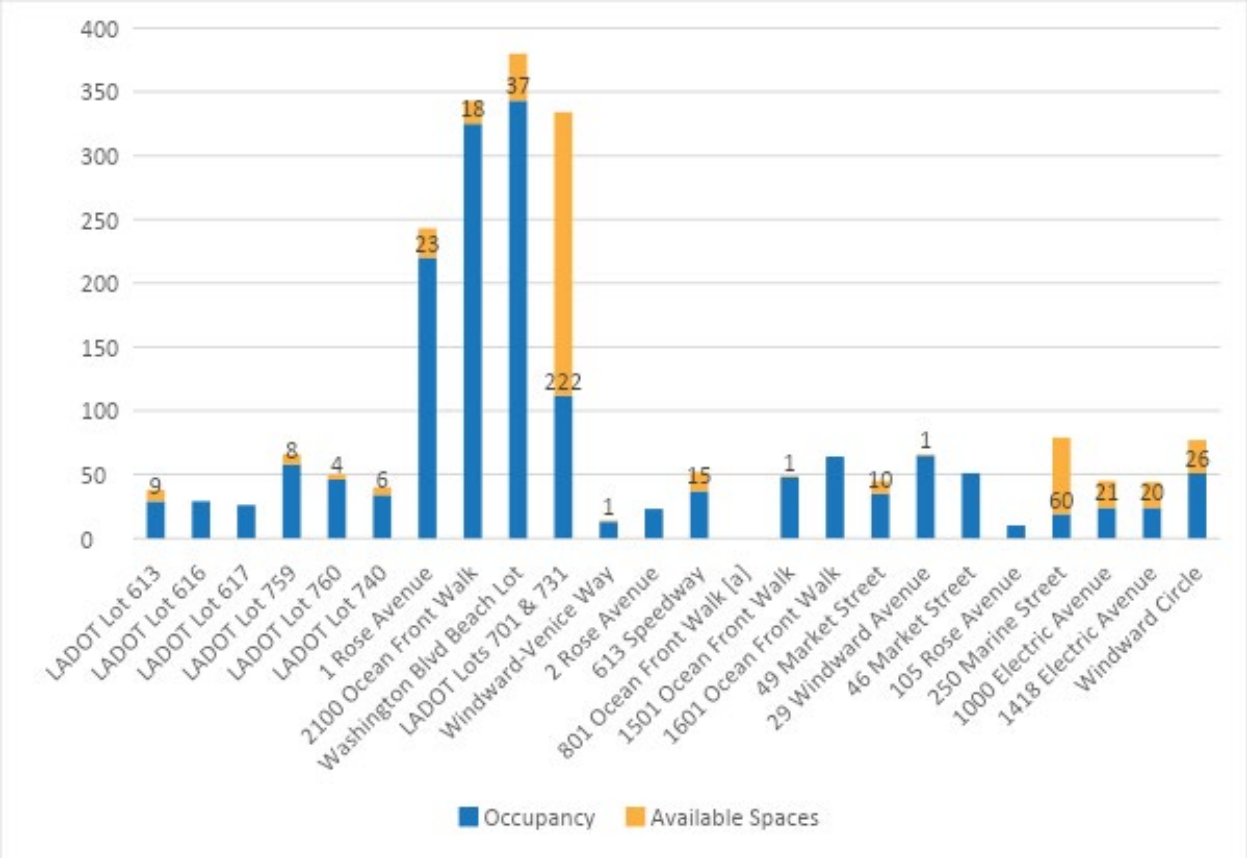
**Table 13: Off-Street Parking Occupancy in the Venice Coastal Zone (Non-Summer Weekend)**

| Location | | Supply | Priced? | Average All Day | 8-10 am | 10-12 pm | 12-2 pm | 2-4 pm | 4-6 pm | 6-8 pm |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Public Lots*** | | | | | | | | | | |
| 1 | LADOT Lot 613 | 53 | | 74% | 47% | 79% | 82% | 76% | 63% | 97% |
| 2 | LADOT Lot 616 | 29 | | 89% | 93% | 97% | 97% | 100% | 79% | 66% |
| 3 | LADOT Lot 617 | 22 | | 97% | 96% | 96% | 100% | 100% | 88% | 100% |
| 4 | LADOT Lot 759 | 66 | ✔ | 60% | 32% | 82% | 85% | 88% | 41% | 30% |
| 5 | LADOT Lot 760 | 50 | ✔ | 81% | 62% | 82% | 98% | 92% | 78% | 76% |
| 6 | LADOT Lot 740 | 41 | ✔ | 79% | 48% | 65% | 95% | 85% | 100% | 85% |
| 7 | 1 Rose Avenue | 243 | ✔ | 67% | 32% | 65% | 78% | 91% | 87% | 49% |
| 8 | 2100 Ocean Front Walk | 343 | ✔ | 62% | 56% | 74% | 65% | 95% | 61% | 25% |
| 9 | Washington Blvd Beach Lot | 380 | ✔ | 53% | 18% | 35% | 59% | 90% | 78% | 37% |
| 10 | LADOT Lots 701 & 731 | 346 | ✔ | 30% | 16% | 28% | 34% | 34% | 45% | 25% |
| 11 | LADOT Lot 761 | 14 | ✔ | 90% | 100% | 100% | 100% | 93% | 100% | 50% |
| ***Private Lots*** | | | | | | | | | | |
| 12 | 2 Rose Avenue | 23 | ✔ | 90% | 65% | 78% | 96% | 100% | 100% | 100% |
| 13 | 613 Speedway | 52 | ✔ | 71% | 62% | 60% | 79% | 71% | 92% | 60% |
| 14 | 801 Ocean Front Walk | 52 | ✔ | [a] | [a] | [a] | [a] | [a] | [a] | [a] |
| 15 | 1501 Ocean Front Walk | 49 | ✔ | 75% | 39% | 88% | 92% | 98% | 80% | 55% |
| 16 | 1601 Ocean Front Walk | 61 | ✔ | 75% | 57% | 79% | 90% | 105% | 79% | 38% |
| 17 | 49 Market Street | 45 | ✔ | 67% | 18% | 89% | 98% | 78% | 53% | 67% |
| 18 | 29 Windward Avenue | 66 | ✔ | 60% | 9% | 68% | 100% | 98% | 55% | 30% |
| 19 | 46 Market Street | 47 | ✔ | 82% | 55% | 81% | 96% | 109% | 96% | 55% |
| 20 | 105 Rose Avenue | 10 | ✔ | 77% | 20% | 80% | 100% | 100% | 100% | 60% |
| 21 | 1000 Electric Avenue | 45 | ✔ | 40% | 18% | 31% | 67% | 53% | 51% | 0% |
| 22 | 1418 Electric Avenue | 44 | ✔ | 54% | 32% | 82% | 70% | 55% | 39% | 45% |
| 23 | Windward Circle | 77 | ✔ | 46% | 13% | 39% | 55% | 66% | 57% | 45% |

Source: Fehr & Peers, 2019.
[a] Access was denied for weekend data collection.

Figure 13 shows off-street lot occupancy and available spaces during the period of peak demand on a non-summer weekend day.

*Figure 13: Peak Off-Street Occupancy and Available Spaces in the Venice Coastal Zone - Non-Summer Weekend (2 pm-4 pm)*




Source: Fehr & Peers, 2019.
[a] Access was denied for weekend data collection.

Table 14 shows off-street lot occupancy and available spaces during the period of peak demand on a non-summer weekend day. Even during the busiest two-hour period, from 2 pm to 4 pm, over 400 parking spaces remain available in off-street lots throughout the Venice Coastal Zone. Over 300 of these open spaces are found in publicly owned and operated lots, and over 200 of those are in LADOT Lots 701 and 731, which have already been identified as the most underutilized off-street facilities in the study area. These lots are located close to both the beach and popular destinations along Abbot Kinney Boulevard, both of which experience the highest parking demand throughout all study periods.

**Table 14: Off-Street Parking Occupancy and Available Spaces in the Venice Coastal Zone (Non-Summer Weekend)**

| Location | | Supply | 2 - 4 pm Demand | Open Spaces |
|---|---|---|---|---|
| ***Public Lots*** | | | | |
| 1 | LADOT Lot 613 | 53 | 83% | 9 |
| 2 | LADOT Lot 616 | 29 | 100% | 0 |
| 3 | LADOT Lot 617 | 22 | 100% | 0 |
| 4 | LADOT Lot 759 | 66 | 88% | 8 |
| 5 | LADOT Lot 760 | 50 | 92% | 4 |
| 6 | LADOT Lot 740 | 41 | 85% | 6 |
| 7 | 1 Rose Avenue | 243 | 91% | 23 |
| 8 | 2100 Ocean Front Walk | 343 | 95% | 18 |
| 9 | Washington Blvd Beach Lot | 380 | 90% | 37 |
| 10 | LADOT Lots 701 & 731 | 327[1] | 34% | 222 |
| 11 | LADOT Lot 761 | 14 | 93% | 1 |
| **Subtotal Public Lots Open Spaces** | | | | **328** |
| ***Private Lots*** | | | | |
| 12 | 2 Rose Avenue | 23 | 100% | 0 |
| 13 | 613 Speedway | 52 | 71% | 15 |
| 14 | 801 Ocean Front Walk | 52 | [a] | [a] |
| 15 | 1501 Ocean Front Walk | 49 | 98% | 1 |
| 16 | 1601 Ocean Front Walk | 61 | 105% | 0 |
| 17 | 49 Market Street | 45 | 78% | 10 |
| 18 | 29 Windward Avenue | 66 | 98% | 1 |
| 19 | 46 Market Street | 47 | 109% | 0 |
| 20 | 105 Rose Avenue | 10 | 100% | 0 |
| 21 | 1000 Electric Avenue | 45 | 53% | 21 |
| 22 | 1418 Electric Avenue | 44 | 55% | 20 |
| 23 | Windward Circle | 77 | 66% | 26 |
| **Subtotal Private Lots Open Spaces** | | | | **94** |
| **Total Open Spaces** | | | | **422** |

Source: Fehr & Peers, 2019.
1. Data received from LADOT in August 2021 indicates that Lots 701 & 731 have 346 parking spaces. The parking analysis completed for this study accounts for 327 parking spaces as shown in the table which undercounts the parking utilization by 19 spaces.
[a] Access was denied for weekend data collection.

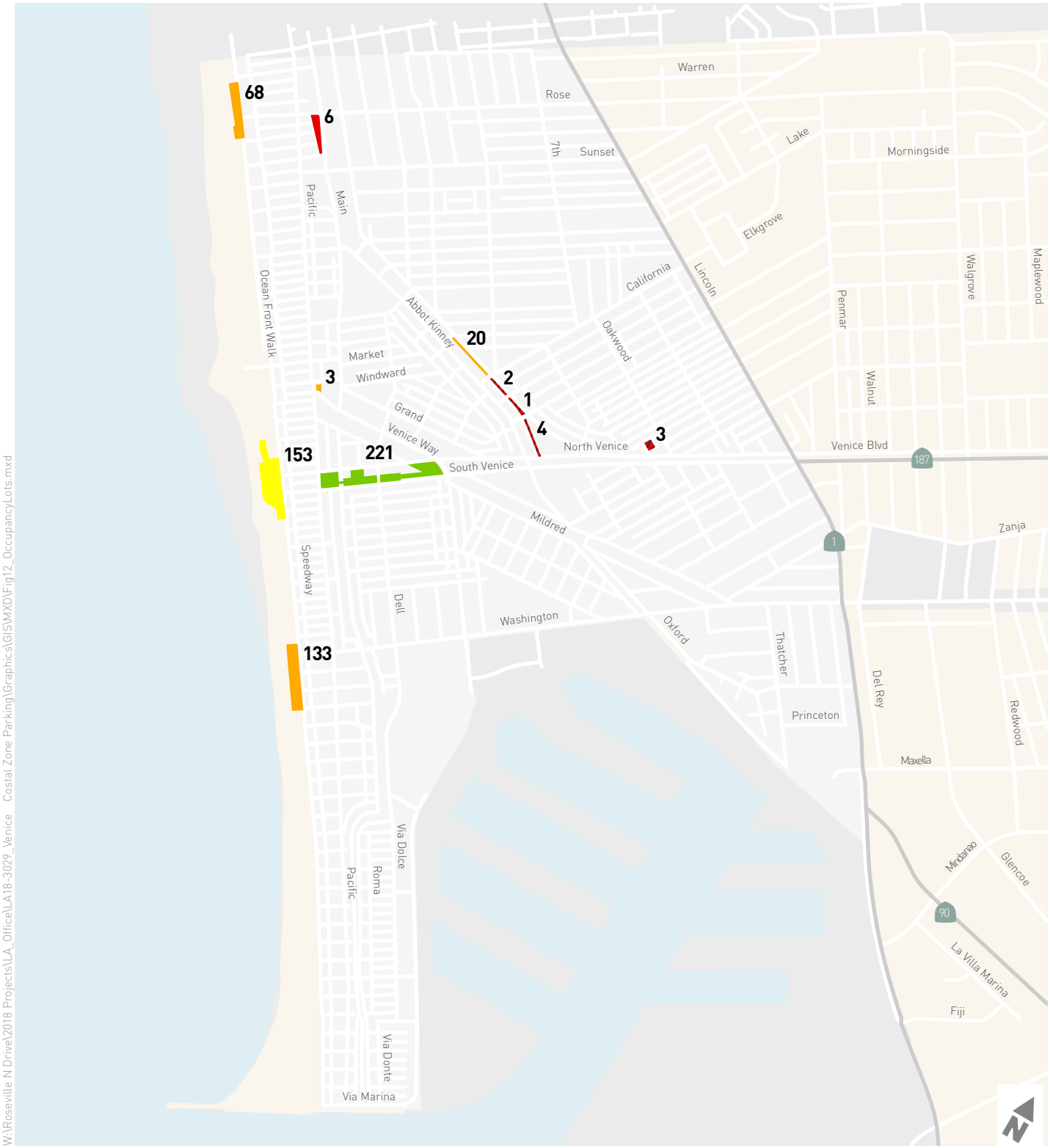
Because the City and the County own a portion of the off-street parking supply in the Venice Coastal Zone, it is worth paying attention to occupancy and availability in these lots. As shown in Table 15, between about 100 and 600 public off-street spaces remain available during peak hours of demand across different days of the week and time of year. Across the Venice Coastal Zone, in other words, approximately 6% of public off-street spaces are never utilized and even on most days of the year, as many as 39% are not utilized.

**Table 15: Peak Period Public Off-Street Parking Occupancy and Availability in the Venice Coastal Zone**

| | Non-Summer Weekday | Non-Summer Weekend | Summer Weekend |
|---|---|---|---|
| Occupied Spaces | 949 | 1,235 | 1,465 |
| Total Spaces | 1,563 | 1,563 | 1,563 |
| Percent | 61% | 79% | 94% |
| Available | 614 | 328 | 98 |

Source: Fehr & Peers, 2019.

Figure 14 through Figure 16 summarize the number of publicly owned off-street spaces available during three study periods. From these figures, we see that most of the underutilized spaces are in LADOT Lots 701 and 731, as well as the beach lots.

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

**Available Spaces in Off-Street Public Parking Non-Summer Weekday: 12pm-2pm**

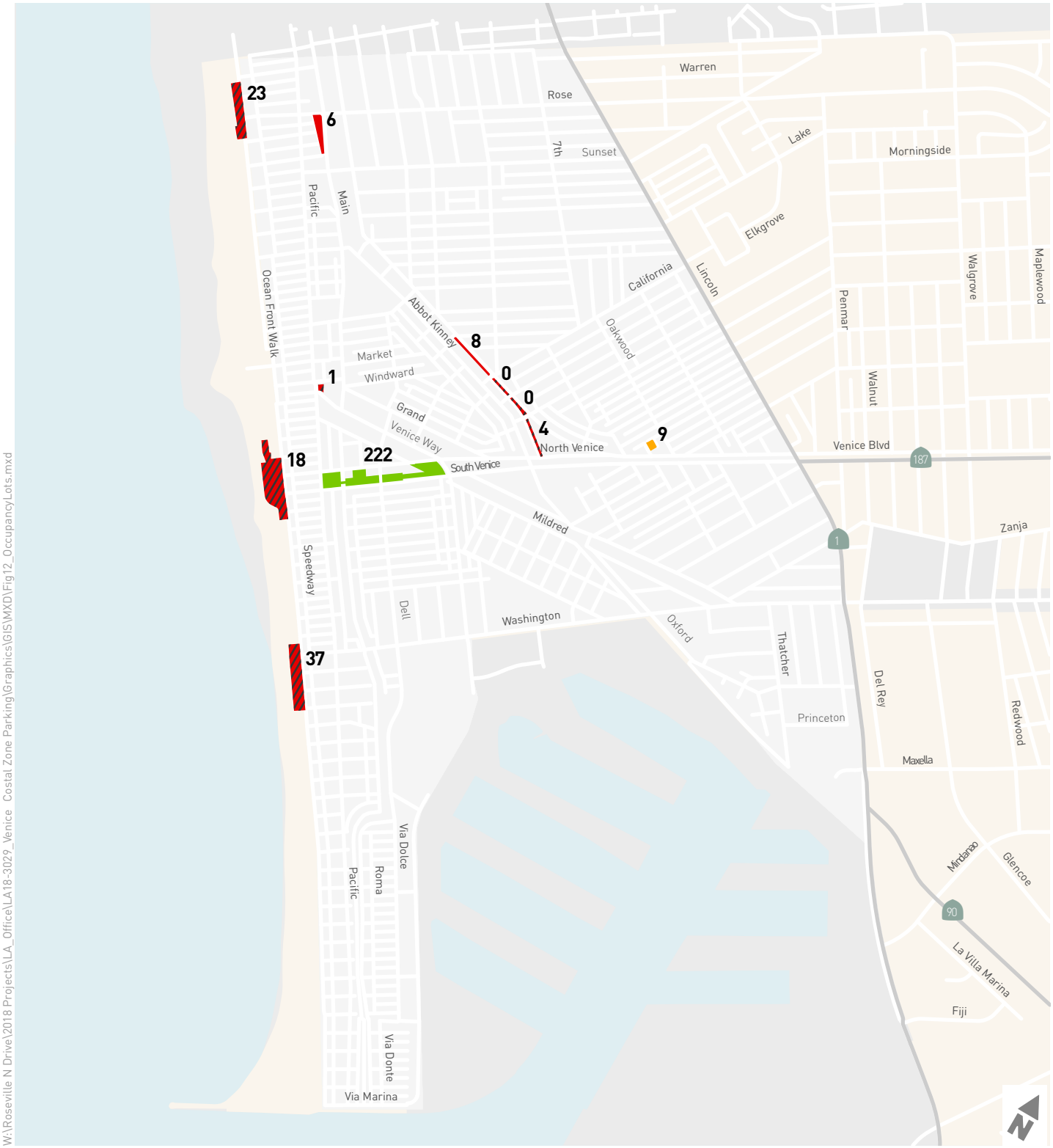
HIGH

**614**

**Spaces Available**

Figure 14

Peak Period Public Off-Street Parking Occupancy and Availability in the Venice Coastal Zone

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

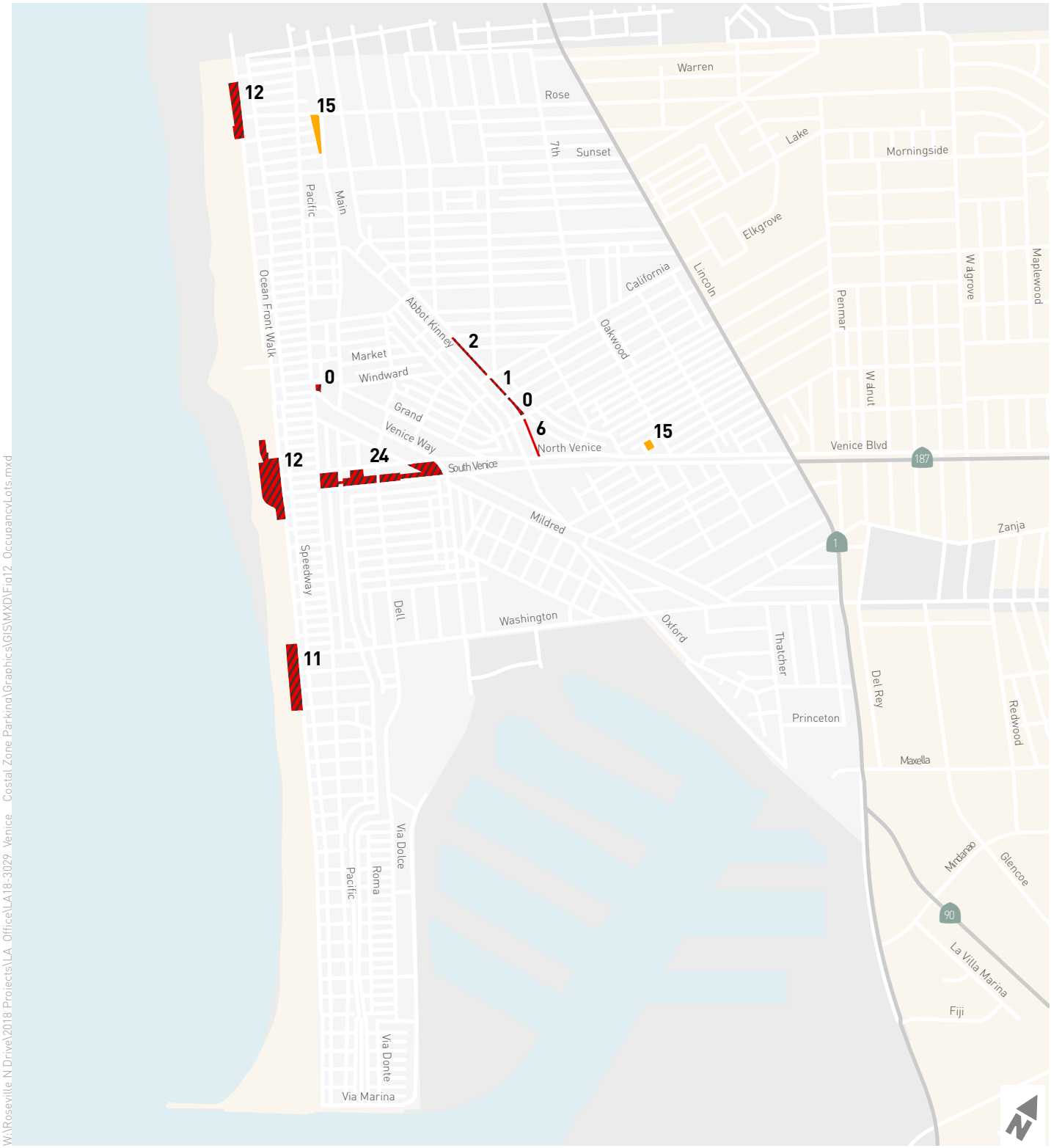
**Available Spaces in Off-Street Public Parking Non-Summer Weekend: 2pm-4pm**

MEDIUM

**328**

**Spaces Available**

Figure 15
Peak Period Public Off-Street Parking Occupancy and Availability in the Venice Coastal Zone




W:\Roseville N Drive\2018 Projects\LA Office\LA18-3029 Venice Costal Zone Parking\Graphics\GIS\MXD\Fig12 OccupancyLots.mxd

Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

**Available Spaces in Off-Street Public Parking Summer Weekend: 12pm-2pm**

LOW

**98**

**Spaces Available**

Figure 16

Peak Period Public Off-Street Parking Occupancy and Availability in the Venice Coastal Zone

### 3.2.3 Off- and On-Street Parking Availability

On-street and off-street parking occupancy and availability were aggregated by Parking Analysis Zone in order to understand the relationship of on-street and off-street parking utilization within the vicinity of shared destinations. Maps depicting combined on-street and off-street occupancy and availability in the Parking Analysis Zones are provided for non-summer and summer data collection, across weekday and weekend time periods in Appendix B.

The aggregated analysis of on-street and off-street parking reveals that on-street parking fills up earlier in the day than off-street parking. On-street parking also maintains higher occupancy than off-street lots across all analysis zones and time periods. This likely reflects the fact that most on-street parking is free in the study area, while almost all off-street parking is paid. Parking management strategies outlined in Chapter 4.2 would help reverse this pattern: encouraging the use of off-street lots for beachgoers and those parking for longer periods of time while reserving on-street supplies for those parking for two hours or less and have a greater need to park near their destination.

The Beach Impact and Abbot Kinney Commercial Zones experience the highest overall occupancy, while the Lincoln Commercial Zone never exceeds 70% occupancy. On non-summer weekend days, occupancy peaks from 2 pm to 4 pm, with an extended peak in the Beach Impact Zone and Abbot Kinney Commercial parking analysis zones, where combined occupancy remains above 80% from 10 am to 6 pm. Nevertheless, public off-street lots are underutilized and maintain hundreds of open spaces during even the busiest period from 2 pm to 4 pm as shown in Figure 15 and Table 15.

Table 16 shows combined on-street and off-street occupancy by Parking Analysis Zone for a non-summer weekend day. In the aggregate, only the Beach Impact Zone and Abbot Kinney Commercial Parking Analysis Zones experience constrained parking throughout the day. All other Parking Analysis Zones maintain availability, through a combination of on-street and off-street parking facilities, throughout most of the day. Aggregating the data in this way shows that while parking is constrained in specific locations, supply over a broader area is sufficient to meet demand, if people are willing to walk a bit further to reach their destination. Micromobility options that are already popular in the area—like electric scooters—are likely to make it easier for those parking off-street to get to their final destination.

**Table 16: Combined On-Street and Off-Street Parking Occupancy by Parking Analysis Zone in the Venice Coastal Zone (Non-Summer Weekend)**

| | Parking Analysis Zone | 8 am - 10 am | 10 am- 12 pm | 12 pm - 2 pm | 2 pm - 4 pm | 4 pm - 6 pm | 6 pm 8 pm |
|---|---|---|---|---|---|---|---|
| 1 | Beach Impact Zone | 72% | 83% | 88% | 94% | 89% | 72% |
| 2 | Venice Canals | - | - | - | - | - | - |
| 3 | Washington Commercial | 51% | 49% | 52% | 54% | 61% | 63% |
| 4 | Ballona Grand Canal | 71% | 78% | 78% | 77% | 72% | 64% |
| 5 | Rose Commercial | 76% | 78% | 83% | 74% | 74% | 73% |
| 6 | Oakwood-Milwood-SE Venice | 67% | 65% | 71% | 74% | 70% | 73% |
| 7 | Abbot Kinney Commercial | 77% | 86% | 94% | 92% | 85% | 77% |
| 8 | Oxford Triangle | 61% | 62% | 64% | 64% | 61% | 63% |
| 9 | Lincoln Commercial | 58% | 61% | 59% | 60% | 62% | 64% |

Source: Fehr & Peers, 2019.

### 3.2.4 Field Observations

Field observations were conducted by Fehr & Peers to:

- Verify the overall level of parking occupancy in the Venice Coastal Zone,
- Qualitatively determine if high levels of parking occupancy increase levels of vehicle circulation,
- Establish if and where parking intrusion into residential neighborhoods occurs,
- Verify the location and types of parking spaces and parking restrictions,
- Observe other parking and travel behavior patterns, including instances of illegal parking and other violations.

Overall, on-street parking spaces were well-utilized across all time periods of observation. Many vehicles were observed shifting from particular street segments as street cleaning restrictions went into effect. Those vehicles would then circulate over several blocks to find parking nearby. On mixed-use corridors, such as Rose Avenue, Windward Avenue, Abbot Kinney Boulevard, and Washington Boulevard near the beach, vehicles were observed double parking for short periods of time and/or dropping off individuals and/or waiting for parking spaces to become available. Near the beach, these and other streets are also crowded with pedestrians, bicyclists, and people on skateboards, scooters, and other micromobility devices.

On weekends, and especially during the summer, vehicles circulating for parking cause operational delays and pose hazards to pedestrians, bicyclists, and scooters. This dynamic was most noticeable near the beach on streets such as Rose Avenue, Speedway, Pacific Avenue, Windward Avenue, and Washington Boulevard. Signage for public beach lots is small and sparse, and signs advertising "Public Beach Parking" at private lots are much more frequent and visually prominent than signs for public lots. Access and signage for LADOT Lots 701 and 731 in the median of Venice Boulevard is constrained, except near the westernmost driveway near Pacific Avenue.

In residential neighborhoods, it was observed that many vehicles are parked illegally in alleyways. Additionally, many residences have private garages off these alleys, in lieu of driveways from the front of their properties. Many garages appear to go unused for parking and are, instead, used for storage or other uses.

### 3.2.5 Findings and Recommendations

#### *i* *On-Street Parking Findings and Recommendations*

1. Vehicles were observed double-parking for short periods of time near the beach and on Abbot Kinney Boulevard, picking up or dropping off passengers or else waiting for on-street parking spaces to become available. These vehicles would be better served by designated passenger loading/pick-up and drop-off locations that minimize conflicts with active transportation users and other traffic.
2. On-street parking along mixed-use corridors primarily serves those parking for two hours or less, even where no time limits are posted. Nevertheless, where time limits are in place, almost 50% of

vehicles are parked in violation of those limits. This suggests that a lack of enforcement may perpetuate the inefficient use of on-street supplies for long-term parking, while off-street supplies go underutilized.

3. Secondary areas of demand in the Venice Coastal Zone include the mixed-use corridors along Abbot Kinney Boulevard and Rose Avenue. With the Beach Impact Zone, these are the only parking analysis zones that experience on-street parking constraints throughout the day. The rest of the Venice Coastal Zone maintains sufficient on-street parking availability on non-summer weekend days.
    a. A majority of those parking near the beach on Abbot Kinney Boulevard do so for two hours or less, regardless of time restrictions in place. Expanding time restrictions and meters in the area can help manage parking supplies more efficiently.
    b. The Washington Commercial Parking Analysis Zone maintains on-street availability of close to 40% or more throughout the day.
    c. The Lincoln Commercial and Oxford Triangle Parking Analysis Zones maintain on-street availability of 30% or more throughout the day.

### *ii Off-Street Parking Findings and Recommendations*

While on-street parking in the analyzed Beach Impact Zone remains fully occupied throughout the day, off-street lots are underutilized with hundreds of available spaces. This suggests that beach parking is constrained due to mismanagement rather than a lack of supply:

1. The three County-owned, County-operated beach lots along Rose Avenue, Venice Boulevard, and Washington Boulevard are underutilized. Their occupancy peaks from 2 pm to 4 pm, while together, 56% of their supply remains available, on average, throughout the day. This amounts to 541 spaces.
2. LADOT Lots 701 and 731, located in the median between North and South Venice Boulevards, are the most underutilized of all the lots studied and provide access to both the beach and proximity to major destinations along Abbot Kinney Boulevard. On average, 233 spaces, or 70% of supply, remain available in these lots on non-summer weekend days. Even during the busiest two-hour period, from 2 pm to 4 pm, these two lots maintain over 200 open spaces.
3. From 2 pm to 4 pm (highest demand period) almost 500 spaces remain available in public and private off-street lots throughout the Venice Coastal Zone on non-summer weekend days.

Private lots charge significantly more than public lots and vary their prices according to demand more dynamically than public lots do. They also experience longer peaks (from 10 am to 4 pm). Despite being cost competitive, public beach lots are still underutilized. Better signage, wayfinding, and management is needed to utilize public lots more effectively.

### *iii Findings and Recommendations for All Parking*

1. Near the beach, vehicles circulating for parking conflict with high volumes of pedestrians, bicyclists, and those using scooters, skateboards, and other active modes, especially on streets

such as Speedway and Pacific Avenue, where they intersect with Rose Avenue, Windward Avenue, and Washington Boulevard.

2. Proximity to the beach and price are the two defining determinants of parking demand in the Venice Coastal Zone. Free, on-street parking near the beach and public, off-street lots that do not charge for parking see the highest occupancy across all time periods.
3. Demand varies little between non-summer and summer weekdays, while summer weekends experienced the highest parking demand. Non-summer weekends represent a midpoint and were therefore selected as the design scenario for analysis and recommendations.

## 3.3 Travel Behavior

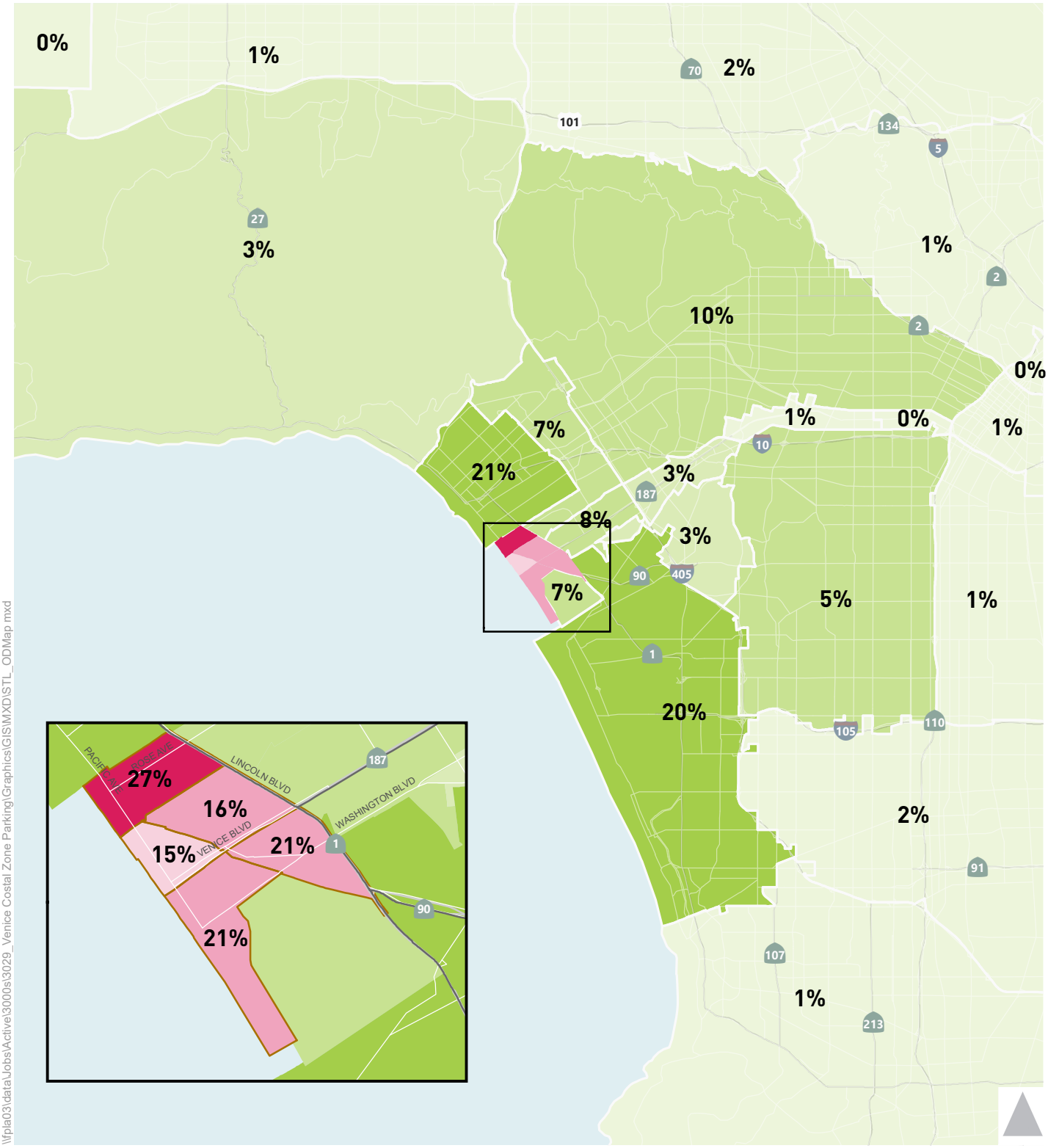
Many factors influence a person's willingness to switch from driving alone to more sustainable modes of travel. This section describes some of the important behavioral considerations that underpin the transportation demand management (TDM) strategies recommended in Part 4.3. These factors include:

- Trip lengths and trip purposes
- Commute mode share
- Household income
- Vehicle ownership
- Micromobility

### 3.3.1 Trip Lengths and Trip Purposes

To understand trip lengths and trip types in Venice, GPS and cell phone data are analyzed to identify travel patterns for vehicle trips that end in Venice. This data, obtained through StreetLight, Inc., provides a regional view of travel patterns along with the ability to delineate travelers into residents, workers, and visitors based on the home location of their cell phone or GPS device and their movement patterns throughout the day. StreetLight data are reported by geographic zones created specifically for each analysis. Typically, smaller zones will be used in and near the area of interest, and larger zones will be used farther away. For this study, the Venice Coastal Zone was divided into five smaller zones, and the region surrounding Venice was divided into 32 larger "origin zones" that extend through Los Angeles County and through portions of Orange County and Ventura County. The StreetLight data analyzed in this report included a sample size of 599,000 trips collected across all days from May 2017 through April 2018. Figure 17 shows the regional distribution of trips ending in the Venice Coastal Zone on an average weekday. Figure 18 shows this same distribution on an average weekend day.

Of all the trips in the data set, 74% originated in one of the 32 origin zones, which means that 26% of the data set represents trips coming from farther away than Ventura and Orange counties. For that 26%, TDM strategies that target tourist trips made irregularly are included in our recommended TDM program. For the remaining 74% of the local and regional trips that terminate in the Venice Coastal Zone, additional analysis is needed to understand more about the characteristics of those trips so that an appropriate blend of TDM strategies can be achieved.




**Trips to Venice Destination Zones**

- 13% - 16%
- 17% - 21%
- 22% - 24%
- 25% - 30%

**Trips from Origin Zones**

- 0% - 2%
- 3% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 25%

Figure 17

## Average Weekday Trip Origins and Destinations

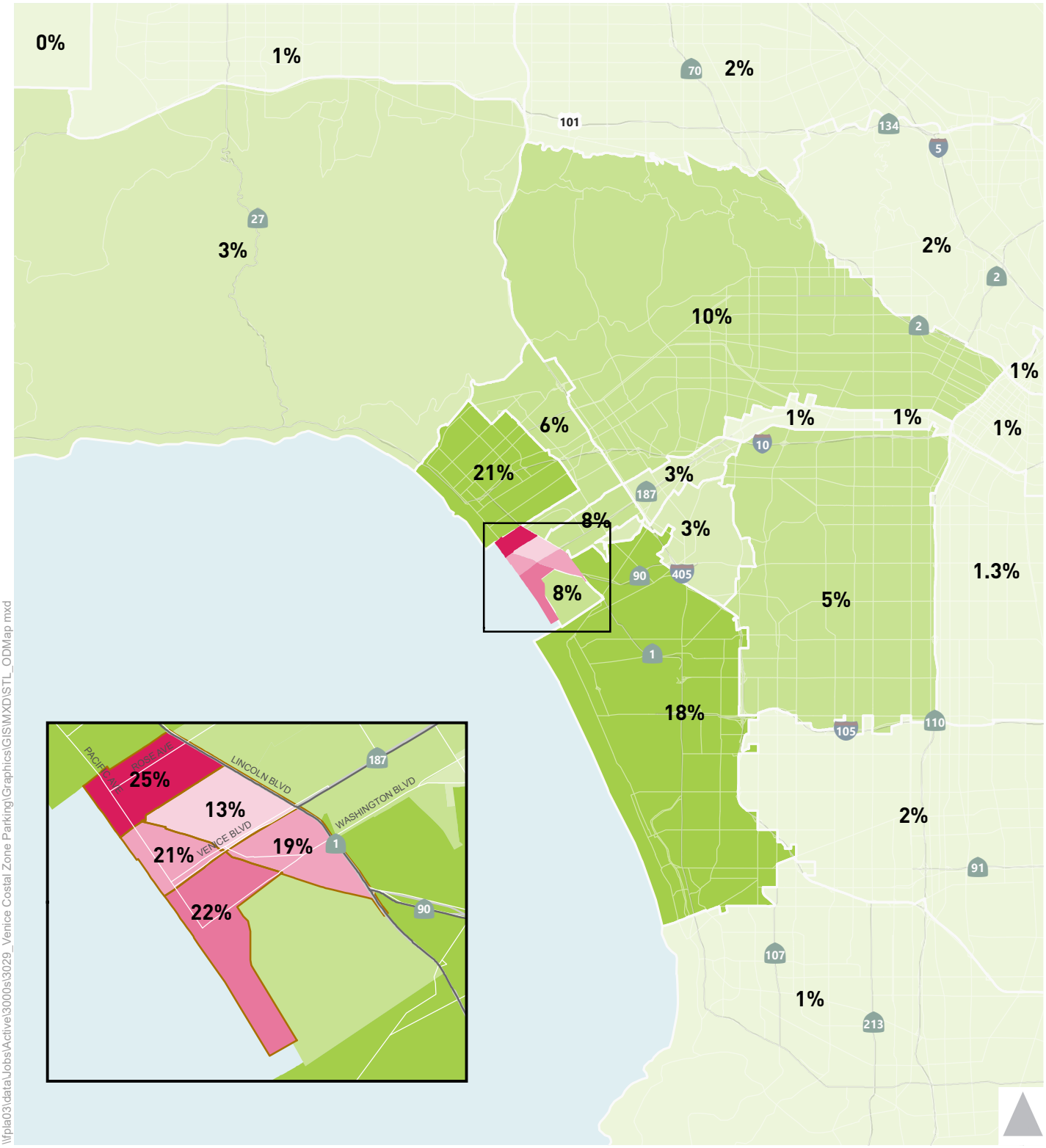



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Figure 18

## Average Weekend Trip Origins and Destinations

For vehicle trips ending in Venice, the average trip length on weekdays was 8.4 miles, while the average trip length on weekends was 9.4 miles (not including the 26% of trips coming from farther away than Orange and Ventura counties). Trip lengths to areas along the beach were longer than trip lengths to other parts of Venice, both on weekdays and weekends. Table 17 shows the percent of trips to the Venice Coastal Zone that are 4 miles or less and 3 miles or less. Over 40% of trips are 4 miles or less, and nearly 30% are 3 miles or less. This analysis only includes trips that originate outside the Venice Coastal Zone and terminate within it; all the trips that originate and terminate entirely within the Venice Coastal Zone are also likely to be shorter in length. TDM strategies that support transit and active modes like bicycling could induce a shift away from single occupant vehicles (SOV) for trips of these lengths.

**Table 17: Percent of Regional Trips to The Venice Coastal Zone**

| Day | 4 Miles or Less | 3 Miles or Less |
|---|---|---|
| Weekday | 42% | 29% |
| Weekend | 43% | 28% |

Source: Fehr & Peers, 2019.

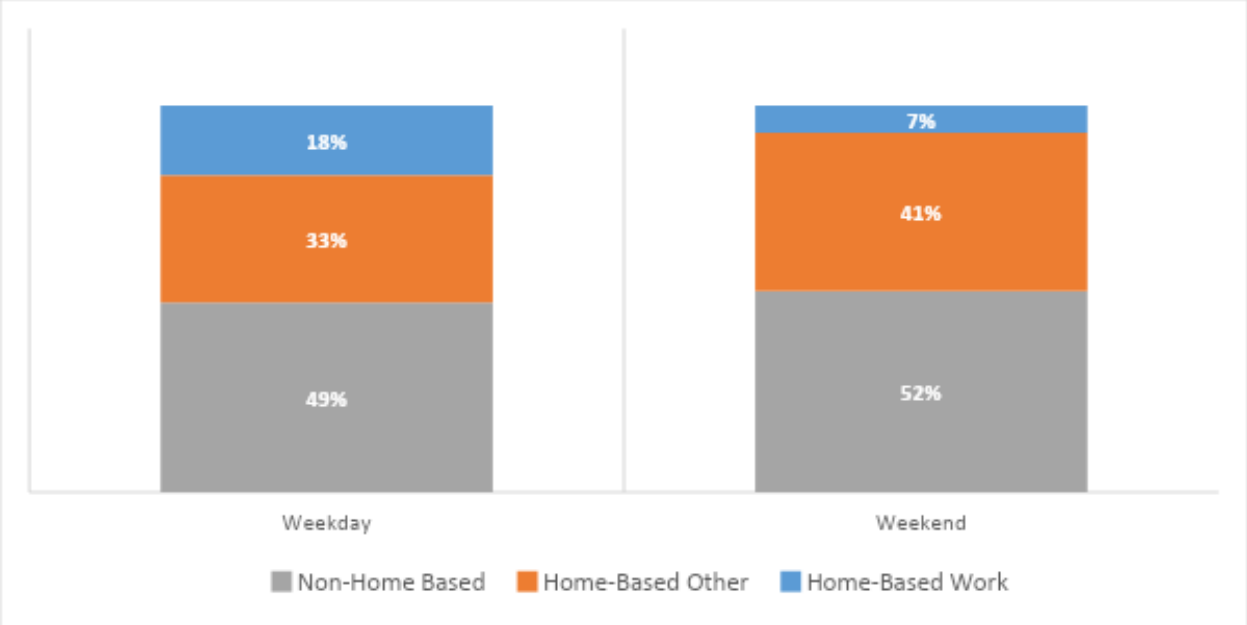
Figure 19 shows the percent splits across trip purposes for weekdays and weekends, for local and regional trips that start at various locations and end in the Venice Coastal Zone. The three types of trips examined are as follows:

| Type of Trip | Purpose | Trip Origin | Trip Destination |
|---|---|---|---|
| Home-based Other | Not for work | Home, outside Coastal Zone | Coastal Zone |
| Home-based Work | For work | Home, outside Coastal Zone | Coastal Zone |
| Non-home-based | Not specified | Somewhere not home, outside Coastal Zone | Coastal Zone |

"Home-based Other" trips originate at a person's home outside the Venice Coastal Zone, while "Non-home-based" trips originate at other locations outside the Venice Coastal Zone. Home-based Other and Non-home-based trips include trips to school, medical and other facilities, shopping trips and trips to restaurants, and trips to other service providers. They also include recreational trips, such as trips to the beach.

Overall, Home-based Other and Non-home-based trips make up the vast majority of trips to the Venice Coastal Zone on both weekdays and weekends. This suggests that most trips into Venice are for personal or recreational purposes and not for work. The percentage of Home-based Work trips varies significantly between weekdays and weekends, comprising 18% on weekdays and 7% on weekends. On weekdays, 29% of morning (6 am to 12 pm) trips to the Venice Coastal Zone are home-based work trips, while only 11% of evening (12 to 10 pm) trips are Home-based Work trips, demonstrating that the largest share of commuters begin work between 6 am and 12 pm while other types of trips dominate the evening travel period.

*Figure 19: Trip Purpose to the Venice Coastal Zone*




Source: Fehr & Peers, 2019.

These findings indicate the need for a package of TDM strategies that serves the 26% of trips that are made by people who live outside the region, as well as the 74% of trips that are local or regional. TDM strategies for long-distance trips are more limited than those feasible for shorter, local and regional trips. The findings also point to the importance of providing strategies that expand beyond commute trip strategies, as the majority of trips to Venice are unrelated to work. Non-work trips may require travelers to carry more items with them, may be more varied in their destination, may have more flexibility in terms of timing, and may be more discretionary. A TDM program should include strategies that take all these factors into account and offer options to meet these various needs through modes other than single occupancy vehicles.

### 3.3.2 Commute Mode Share

Commute mode share measures the percentage of workers aged 16 years and over who commute either by bicycle, by private vehicle (including car, truck, van, taxicab, and motorcycle), by public transportation (including bus, rail, and ferry), and by foot. In recent years, it has also measured the percentage of those who work from home. The commute mode share of a community reflects how well infrastructure, policies, investments, and land-use patterns support different types of travel to work. Table 18 compares the commute mode share of Venice to that of the City of Los Angeles overall.

**Table 18: Commute Mode Share in the Venice Coastal Zone**

| Mode | % Share | |
|---|---|---|
| | Venice Coastal Zone | City of Los Angeles |
| Drive Alone | 67% | 69% |
| Carpool | 5% | 9% |
| Transit | 2% | 10% |
| Walked | 6% | 3% |
| Bicycled | 5% | 1% |
| Taxi, Motorcycle, Other | 3% | 2% |
| Worked from Home | 13% | 6% |

Source: American Community Survey, 2017 5-Year Estimates, Table S0801, U.S. Census Bureau, 2017.

Compared to the City of Los Angeles overall, residents of Venice are twice as likely to walk or work from home, five times as likely to bicycle, nearly half as likely to carpool, and one-fifth as likely to take transit. These figures indicate there is already a higher use of active modes among Venice residents and highlight the potential to shift to non-auto modes for other types of trips. In addition, the low share of transit signals opportunity in this area to provide service that better meets the needs of those in Venice.

### 3.3.3 Household Income

On average, households in Venice are more affluent than the City of Los Angeles. In Venice, a higher share of households earns over $75,000 per year, as shown in Table 19. Many TDM strategies rely on price sensitivity through the use of monetary incentives for those who choose non-SOV modes or monetary disincentives for those who choose to drive and park. In general, individuals with a higher income will require higher levels of subsidy to produce the same incentive effects, compared with lower-income individuals. In contrast, TDM strategies that create a time savings benefit for taking a non-SOV mode may produce greater incentive effects for higher-income individuals compared to lower-income individuals. A TDM program that includes both subsidies and time savings would result in greater participation from Venice residents.

**Table 19: Household Income in the Venice Coastal Zone**

| | Venice Coastal Zone | City of LA |
|---|---|---|
| Less than $75,000 | 45% | 55% |
| Greater than $75,000 | 62% | 38% |

Source: American Community Survey, 2017 5-Year Estimates, Table S1901, U.S. Census Bureau, 2017.

### 3.3.4 Vehicle Ownership

Overall, the average vehicles per household in Venice is slightly lower than the average for the City of Los Angeles, with a household in Venice owning, on average, 1.45 vehicles compared to 1.57 vehicles for the City of Los Angeles as shown in Table 20.

**Table 20: Estimated Vehicle Ownership in the Venice Coastal Zone**

| | Venice Coastal Zone | City of LA |
|---|---|---|
| Vehicles | 16,571 | 2,147,858 |
| Households | 11,437 | 1,364,227 |
| Vehicles per Household | 1.45 | 1.57 |

Source: American Community Survey, 2017 5-Year Estimates, Tables S0801 and B08201, U.S. Census Bureau, 2017.

Although the average vehicle ownership does not differ greatly, an analysis of the percent of households owning zero or one vehicle offers more nuance to the ownership patterns. As shown in Table 21, a smaller share of households in Venice owns zero vehicles compared to the City of Los Angeles. In addition, a larger share of households in Los Angeles owns 2+ vehicles as compared to Venice where almost half of households own just one vehicle.

**Table 21: Zero and One Vehicle Households in the Venice Coastal Zone**

| | Venice Coastal Zone | City of LA |
|---|---|---|
| ***Zero Vehicle Households in the Venice Coastal Zone*** | | |
| Zero Vehicle Households | 949 | 169,366 |
| Total Households | 11,437 | 1,364,227 |
| Percent | 8.3% | 12.4% |
| ***One Vehicle Households in the Venice Coastal Zone*** | | |
| One Vehicle Households | 5,458 | 531,165 |
| Total Households | 11,437 | 1,364,227 |
| Percent | 47.7% | 38.9% |

Source: American Community Survey, 2017 5-Year Estimates, Tables S0801 and B08201, U.S. Census Bureau, 2017.

Households that forgo vehicle ownership entirely may do so either because they prefer it, or because they do not need a vehicle; they also simply may not be able to afford one. In more affluent Venice, households that might otherwise be interested in forgoing vehicle ownership may not feel a financial urgency to do so, and therefore retain a single household vehicle. Given these patterns, TDM strategies like carshare, which provide the convenience of vehicle ownership when one needs it without requiring a household to maintain a vehicle of their own, may be particularly appealing in Venice.

### 3.3.5 Micromobility

The City of Los Angeles has implemented a micromobility pilot program that allows vendors to place a regulated number of dockless electric vehicles across the city. Based on early information about where vendors have chosen to locate these devices (including scooters and e-bikes), Venice appears to be a very popular destination, indicating a higher level of demand for these devices in Venice compared to other parts of Los Angeles. Of the initial 36,000+ dockless vehicles permitted in the city, nearly 7,500 of those vehicles were reported in the Venice area in June 2019.[9] While these results are only preliminary, and the pilot program may adjust permit allocation in the future, these early decisions signal an appetite for non-auto mobility options in Venice.

## 3.4 Parking Requirements

The parking requirements for different land uses in the Venice Coastal Zone are outlined in the 2001 Venice Local Coastal Program Land Use Plan and the 2004 Venice Coastal Zone Specific Plan. Table 22 summarizes the parking requirements for the most common land use types in Venice.

For single family dwelling units, the plan requires either two or three spaces per unit, depending on the lot size (40' width or greater or 35' if adjacent to an alley requires three spaces per unit), and whether the development is located within the Silver Strand or Canals Subareas (where three spaces per unit are required, independent of lot size). Multi-family developments are generally required to provide two spaces per unit, with an additional ¼ space per unit required for guests for multi-family units developed on lot sizes with 40' width or greater (or 35' width if adjacent to an alley). Multi-family parking ratios are not based on the number of bedrooms provided in each unit. Within the Beach Impact Zone, multi-family residential developments of three units or more are required to provide additional parking at 1 space per 1,000 square feet of ground floor area on top of these requirements.

Requirements for commercial uses range from 1 space per 200 square feet of floor area (shopping center) to 1 space per 250 square feet (personal service establishment). Restaurants and bars are required to provide 1 space per 50 square feet of service floor area (inclusive of patios and outdoor dining areas), with a minimum of 10 spaces for restaurants with window or drive-through service. Office uses are required to provide between 1 space per 150 square feet of floor area (medical office) to 250 square feet (general office). Within the Beach Impact Zone, commercial uses are required to provide one additional parking space for each 640 square feet of first floor area on top of these requirements. Current ratios for other land uses are detailed in Table 22.

[9] The Los Angeles Department of Transportation (LADOT) reported in June 2019 that 7,482 dockless vehicles had been reported by operators in Council District 11, which includes the Venice Coastal Zone and other adjacent neighborhoods. "Dockless Bike/Scooter Share Pilot Program Update." City of Los Angeles Inter-Departmental Correspondence. From Seleta J. Reynolds, General Manager, Department of Transportation to the Honorable City Council. June 5, 2019. http://clkrep.lacity.org/onlinedocs/2017/17-1125_rpt_DOT_06-05-2019.pdf

**Table 22: Existing Parking Requirements and Parking Ratio Comparison for Major Land Use Categories – Southern California Coastal Cities**

| City | City of Los Angeles | | Carlsbad | Hermosa Beach | Laguna Beach | Long Beach Coastal Zone | Manhattan Beach | Oceanside Coastal Zone | Redondo Beach | Santa Barbara | Santa Monica | | Ventura |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Venice Coastal Zone | | | | | | | | | | City-wide | Parking Overlay Area | |
| | Coastal Zone | BIZ[10] | | | | | | | | | | | |
| Single Family (Smaller Lot) | 2 per DU (3 per DU in Silver Strand/Canals) | | | | | | | | | | | | |
| Single Family (Larger Lot) | 3 per DU | | 2 per DU | 2 per DU + 1 guest | 2 per DU | 2 per DU | 2 per DU | 2 per DU | 2 per DU | 2 per DU | 2 per DU | 2 per DU (tandem ok) | 2 per DU |
| Multi-Family | 2 per DU | + 1 per 1000 SF of ground floor | 1.5 to 2 per DU | 2 per DU | 1.5 to 2 per DU | 1 to 2 per DU | 2 per DU | 1.5 to 2 per DU | 2 per DU | 1.25 to 2 per DU | 1 to 2 per DU | 1 to 1.5 per DU | 1 to 2 per DU |
| Visitor (Multi-Family only) | 0.25 per DU | | 0.3 per DU (up to 10 DU) 0.25 per DU (11+ DU) | 1 per DU (2 DU) 0.5 per DU (3+ DU) | 0.25 per DU | 0.25 per DU | 0.25 per DU (4+ DU) | n/a | 1 space (2-3 DU) 2 spaces (4-6 DU) 3 spaces (7-10 DU) 0.33 per DU (11+ DU) | 0.25 per DU (6+ DU) | 0.2 per DU | 0.1 per DU | 0.25 per DU |
| Accessory Dwelling Unit | n/a | | 1 space | 1 per bedroom | n/a | 1 per bedroom | n/a | 1 per bedroom | n/a | not required | not required | not required | 1 per bedroom (max of 2) |
| Affordable | n/a | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1 per DU 0.5 per DU (Senior) | 50% of standard | 50% of standard | n/a |
| Commercial | 1 per 200 SF - 1 per 225 SF | +1 space per 640 SF of ground floor | 1 per 200 SF - 1 per 300 SF | 1 per 250 SF - 1 per 333 SF (downtown) | 1 per 250 SF | 1 per 200 SF | 1 per 200 SF - 1 per 250 SF | 1 per 200 SF - 1 per 300 SF | 1 per 250 SF | 1 per 250 SF | 1 per 300 SF - 1 per 500 SF | 1 per 300 SF - 1 per 500 SF | 1 per 300 SF |
| Office | 1 per 250 SF - 1 per 150 SF | | 1 per 250 SF | 1 per 250 SF - 1 per 333 SF (downtown) | 1 per 250 SF | 1 per 250 SF | 1 per 300 SF | 1 per 400 SF | 1 per 300 SF | 1 per 250 SF | 1 per 300 SF | 1 per 500 SF | 1 per 300 SF |
| Restaurant | 1 per 50 SF of Service Floor Area | +1 space per 640 SF of ground floor | 1 per 50 SF - 1 per 100 SF | 1 per 50 SF - 1 per 100 SF | 1 per 250 SF | 1 per 100 SF | 1 per 50 SF | 1 per 45 SF - 1 per 50 SF | 1 per 75 SF - 1 per 250 SF | 1 per 100 SF - 1 per 250 SF | 1 per 50 SF - 1 per 300 SF | 1 per 50 SF - 1 per 500 SF | 1 per 100 SF |
| Hotel | 2 spaces + 2 per DU + 1 per room (first 30) + 1 per 2 rooms (next 30) + 1 per 3 rooms (remaining) + 1 per 100 SF eating/drinking + 1 per 5 seats or 35 SF for meeting rooms | | 1.2 per room | 1 per room (first 50) + 1 per 1.5 rooms (next 50) + 1 per 2 rooms (remaining) + for ancillary uses according to respective ratios | 1 per room + 1 per 15 rooms + for ancillary uses according to respective ratios (minus 20%) | 1 per room + for banquet and meeting rooms, restaurants and gift shops | 1.1 per room + 1 per 50 SF + for ancillary uses according to respective ratios | 1 per room | 2 per room (w/o kitchen) 1.5 per room (w/ kitchen) + 1 per 100 SF banquet, assembly, meeting, restaurant area | 1 per room | 1 per room + 1 per 200 SF meeting and banquet space | 0.75 per room + 1 per 250 SF meeting and banquet space | 1 per unit + for ancillary uses according to respective ratios |

Source: Fehr & Peers, 2019.

[10] Beach Impact Zone (BIZ) parking only applies to development located in the Beach Impact Zone, as shown in Exhibit 17a and 17b of the Venice Land Use Plan. Commercial & industrial projects require an additional parking space for each 640 square feet of floor area of the ground floor, with a minimum of 2 spaces. Multi-family residential projects require an additional parking space for each 1,000 square feet of ground floor for projects with three units or more, with a minimum of 1 space.

### 3.4.1 Existing Parking Requirements

Currently, parking requirements for projects in the Venice Coastal Zone are subject to the parking ratios listed in the Venice Specific Plan. For uses not listed in the Specific Plan, the required parking is based on the requirements outlined in LAMC Section 12.21 A.4. With the implementation of a new Zoning Code underway, parking requirements in Venice could see some changes. One of the tenets of the new Zoning Code is to consolidate the city's parking requirements, which vary significantly by community, into five standard sets that reflect the geography and land use mix of a particular community. Parking Set E has the highest parking requirements, and the number of required spaces continues to decrease in Parking Sets D, C, and B. No parking is required under Parking Set A. The recommended potential updates to parking requirements, discussed in Part 4.4 in this report, are based on Parking Set E.[11]

Table 22 compares required parking ratios in the Venice Coastal Zone with several coastal communities in Southern California. The Venice Coastal Zone has among the highest parking ratios required in the city and throughout coastal Southern California. For single family development, the requirement is 2 to 3 spaces per dwelling unit. For multi-family developments, the requirement is 2 spaces per unit, plus visitor parking. Additional parking may also be required in the Beach Impact Zone. When compared amongst other coastal communities, the Venice Coastal Zone has the highest number of required spaces per square foot of commercial, office, and restaurant uses.

### 3.4.2 Mobility Trends and Changing Demand

Since the adoption of the Venice Coastal Zone Land Use Plan (2001) and the update to the Venice Coastal Zone Specific Plan (2004), several transportation infrastructure and mobility services have altered the transportation landscape on the Westside of Los Angeles. The completion of the Metro Expo line to Santa Monica in 2016 provides light rail service to the coastal area of Los Angeles County for the first time in decades. While it is located approximately 1.3 miles north of Venice, it is a close bicycle or connecting transit ride away and complements bus service to the area in providing coastal access without need for a vehicle.

TNCs, such as Uber and Lyft, have exploded in popularity throughout Los Angeles County, but are used extensively throughout the Westside, and provide vehicle-based mobility without the need for parking. Other recent mobility services include the City of Santa Monica's Breeze Bikeshare and Metro Bikeshare in Venice. Electric scooter startups, including Bird, Lime, and Spin have blanketed areas of the Westside with on-demand scooter rentals, which can effectively serve short trips within the Venice Coastal Zone and reduce the need for internal vehicle trips between destinations.

All of these services create downward pressure on parking demand and form the backbone of a district-wide shared parking solution that can encourage greater efficiencies through "park-once" opportunities for beachgoers and community members. At the same time, the high parking requirements promote design and built form decisions that may make walking and bicycling less attractive options in the area; namely, when buildings must devote ground-floor square footage to on-site parking or driveways in

[11] All references to parking requirements of the new Zoning Code are taken from the latest information available at the time this report was published.

order to meet their parking requirement, it reduces square footage available at ground level that engage pedestrians and create a comfortable walking environment. Driveways also create conflict between vehicles entering and exiting the site and pedestrians and bicycles.

### *i Parking Demand by Land Use and Time of Day*

Parking by the coast typically peaks on weekend days from 12 pm to 4 pm, with seasonal peaks over the summer, based on the data collected and discussed in Part 2.4. The concept of shared parking, which is codified under LAMC Section 12.24 X.20, takes into account the time of day and seasonal variations in parking demand associated with different land uses. For example, parking demand at a typical commercial office site peaks during the workday, when most businesses are active, and has its lowest demand at night and on weekends. Conversely, residential parking demand typically peaks at night. If office and residential uses are included in a mixed-use development, they can comfortably share parking supply, and do not need to provide the maximum amount of parking for each individual use, because their peaks occur at different times of day. Recommendations for parking management strategies, including shared parking, are discussed in Part 4.2.2.

The Urban Land Institute (ULI) shared parking model is used for quantifying shared parking opportunities by land use and time of day. The model was developed through detailed empirical data collected at mixed-use centers nationwide. According to ULI data shown in Table 23**,** some land uses would most likely conflict with typical weekday and weekend peak coastal access. In other words, the time periods in which they generate the highest parking demand overlap with the time periods in which demand for parking to access the coast is highest. Those land uses most likely to conflict with peak coastal access parking include:

- Shopping Center
- Restaurants with lunch service
- Fast Food Restaurants
- Office (if visitor serving such as a real estate office and open on weekends)

The following uses would least likely conflict with peak coastal access:

- Non-visitor serving office
- Medical Office
- Restaurants (only dinner service)
- Bars & Nightclubs
- Residential
- Hotel (with limited or no conference space)
- Health Club
- Cinema
- Performing Arts

**Table 23: Hourly Parking Demand by Land Use**

| Use Category | User Type | Weekday Mid-day 12pm | Weekday Mid-day 3pm | Weekend Mid-day 12pm | Weekend Mid-day 3pm |
|---|---|---|---|---|---|
| Shopping Center | Customer | 95% | 90% | 80% | 100% |
| | Employee | 100% | 100% | 100% | 100% |
| Fine/Casual Dining Restaurant | Customer | 75% | 40% | 50% | 45% |
| | Employee | 90% | 75% | 75% | 75% |
| Family Restaurant | Customer | 100% | 45% | 100% | 40% |
| | Employee | 100% | 75% | 100% | 75% |
| Fast Food Restaurant | Customer | 100% | 60% | 100% | 60% |
| | Employee | 100% | 70% | 100% | 70% |
| Cinema | Customer | 20% | 55% | 20% | 55% |
| | Employee | 50% | 75% | 50% | 75% |
| Health Club | Customer | 60% | 70% | 50% | 30% |
| | Employee | 75% | 75% | 50% | 50% |
| Hotel-Business | Guest | 55% | 60% | 55% | 60% |
| | Employee | 100% | 100% | 100% | 100% |
| Hotel-Leisure | Guest | 65% | 70% | 65% | 70% |
| | Employee | 100% | 100% | 100% | 100% |
| Hotel Restaurant/ Lounge | Customer | 100% | 10% | 100% | 10% |
| | Employee | 100% | 100% | 100% | 100% |
| Residential | Resident | 65% | 70% | 65% | 70% |
| | Guest | 20% | 20% | 20% | 20% |
| Office | Visitor | 15% | 45% | 90% | 40% |
| | Employee | 90% | 100% | 90% | 40% |
| Medical/Dental Office | Customer | 30% | 100% | 30% | 0% |
| | Employee | 100% | 100% | 100% | 0% |

Source: Urban Land Institute Shared Parking rates.

### 3.4.3 Findings and Potential Updates to Parking Ratios

Modifications to the parking ratios in Venice are suggested as part of this study. Given that the Venice Coastal Zone has among the highest parking ratios required in the city and throughout coastal Southern California and the city's efforts to consolidate parking requirements in the new Zoning Code, this study identifies potential decreases in parking requirements for most types of development, with the exception of single-family residences. Suggested changes include lowering requirements for multi-family residences; office, retail, and manufacturing facilities; and restaurant uses. The impact of these parking ratio

reductions should be analyzed in tandem with other parking recommendations to ensure that there is minimal impact to coastal access. Table 24 provides a summary of the recommended changes to parking requirements in the Venice Coastal Zone. The potential updates are presented with greater detail in Part 4.4 of this report.

**Table 24: Summary of Potential Updates to Parking Ratio Changes for Common Types of Development**

| Land Use | Changes to Parking Ratios |
|---|---|
| Single-family residence | No change |
| Multi-family residence | Reduced from 2 spaces to 1-2 spaces per dwelling unit, depending on # of habitable rooms. Eliminated 0.25 per unit guest parking. |
| General Office | Reduced from 4 to 2 spaces per 1,000 SF |
| General Retail | Reduced from 4.4 to 4 spaces per 1,000 SF |
| Manufacturing and Industrial | Eliminated minimum 3 spaces and reduced ratio from 2.85 to 2 spaces per 1,000 SF for first 10,000 SF, plus 0.2 per 1,000 SF after |
| Restaurant | Ratio to be based on Floor Area (10/1,000 SF) instead of Service Floor Area (20/1,000 SFA). Reduced parking requirements for most restaurants. |

Source: Fehr & Peers, 2019 and new Zoning Code Parking Set E.

## 3.5 Parking In-Lieu Fee Program

The Venice Coastal Zone parking in-lieu fee program allows business owners and developers to satisfy parking requirements without providing all of the required spaces. In lieu of providing the total number of required parking spaces, a project applicant may have the option of paying a fee for each required parking space not provided. This is particularly important in the Venice Coastal Zone as parking requirements are higher than for the rest of the city, while lot sizes are nonconforming. In the Venice Coastal Zone Specific Plan area, when a property owner or business entity is unable to provide the total number of parking spaces required by code on site, there are two main options to bring a project into compliance: 1) applying for a specific plan exception[12] to reduce the amount of required parking, or 2) requesting the option of paying an in-lieu fee for every parking space not provided.

### 3.5.1 Background

Parking in-lieu fees are used by cities across the state, including the following cities in southern California, whose programs are summarized below:

[12] A specific plan exception allows a developer to request relief from providing parking as required by the Venice Specific Plan. Requesting a specific plan exception is costly and requires there to be a hardship, and for that hardship to be justified pending the approval of the West Los Angeles Area Planning Commission. For these reasons, few requests for specific exceptions are granted.

1. City of Hermosa Beach (Coastal Zone)
2. City of Ventura (Coastal Zone)
3. City of Santa Monica (Coastal Zone)
4. City of West Hollywood
5. City of Beverly Hills

The purpose of a parking in-lieu fee program is not to impose an additional fee or burden on new development, but to provide an alternative method for business owners and developers to satisfy parking requirements when providing the required parking on site is either challenging or infeasible. Providing code-required parking on site may be prohibitively expensive given the size or configuration of a parcel. In such cases, a parking in-lieu fee provides flexibility to developers while also ensuring that parking requirements are met. Cities typically use the revenue from parking in-lieu fees to construct shared parking, operate or subsidize shuttle services from parking facilities, or implement parking management strategies that increase the functional supply of parking in an area.

### Venice Coastal Zone Parking In-Lieu Fee

The Venice Coastal Zone parking in-lieu fee program provides an option for developers of new projects or change of use projects to pay into a city fund instead of providing the total number of parking spaces required to meet the parking demands of the development. For commercial and industrial uses, the fee is $18,000 per space and can be paid in lieu of providing up to 50% of required parking spaces. For multi-family residential uses, the fee is $18,000 per space for up to 100% of required spaces. Under current regulations, single-family residential projects do not qualify for the in-lieu fee option.

The fee has remained at $18,000 since it was first established in 2004. The fees are collected by the Department of Transportation and go into the Venice Coastal Zone Parking Impact Trust Fund (Fund No. 864). The money collected may be used for parking facility improvements or construction, operation of shuttle buses, administrative costs, and bicycle racks and storage.

While the in-lieu fee program is recognized in the Venice Coastal Zone Specific Plan and Venice Coastal Zone Land Use Plan, the California Coastal Commission has taken issue with how the fee is priced and how the revenue is expended. Their opinion is summarized in the staff report regarding a 2016 case that was appealed by the Coastal Commission Executive Director on the basis of the in-lieu parking fee:[13]

> "The in-lieu fee is not adequate mitigation for the following two reasons: 1) the amount paid per parking space ($18,000) is significantly less that the cost of providing one parking space, and 2) the City does not have a plan to use the collected fees to mitigate the parking impacts of the approved development (e.g., construction of additional parking). The result of the action is to increase the demand for parking in an area that currently does not have an adequate supply to

[13] Coastal Commission Staff Report for A-5-VEN-16-0041 (2016); https://documents.coastal.ca.gov/reports/2016/7/th24b-7-2016.pdf

meet the parking demand. The lack of adequate parking reduces the ability of the public to access the shoreline."

As of October 2020, approximately $1.1 million had been collected from the in-lieu fee program, in lieu of approximately 56 parking spaces, since 2003. The fund revenues and expenditures are summarized in Table 25.

**Table 25: Venice Coastal Parking Impact Trust Fund Revenues and Expenditures**

| Year | Description | In-Lieu Spaces Purchased | Revenue | Expenditures | Net Balance |
|---|---|---|---|---|---|
| 1993 | Parking Design and Construction | - | | ($7,000.00) | |
| 2003 | Parking In-Lieu Fees | 3 | $54,000 | | |
| 2005 | Parking In-Lieu Fees | 9 | $162,000 | | |
| 2006 | Parking In-Lieu Fees | 12 | $216,000 | | |
| 2007 | Parking In-Lieu Fees | 11 | $197,700 | | |
| 2007 | Parking Design and Construction | - | | ($100,000.00) | |
| 2008 | Parking In-Lieu Fees | 1 | $18,000 | | |
| 2008 | Parking Design and Construction | - | | ($130,600.00) | |
| 2009 | Parking In-Lieu Fees | 2 | $36,000 | | |
| 2010 | Parking In-Lieu Fees | 4 | $72,000 | | |
| 2012 | Parking In-Lieu Fees | 5 | $90,000 | | |
| 2013 | Parking In-Lieu Fees | 5 | $90,000 | | |
| 2017 | Deficiency Parking Fee | 4 | $72,000 | | |
| 2018 | Planning | - | | ($150,000.00) | |
| | Excess Deposit | - | $25 | | |
| | Interest | - | $74,225.82 | | |
| | Total | 56 | $1,081,950.82 | ($387,600.00) | $694,350.82 |

Source: Los Angeles Department of Transportation, as of October 20, 2020.

Applicants have paid fees in-lieu of between 0 and 12 parking spaces per year since the program's inception. Fund expenditures have been limited to the construction of two at-grade parking lots and funding for transportation and parking planning services for the Venice Local Coastal Program update. Approximately $230,000 from the in-lieu fee program was used to fund construction of the two parking lots, LADOT Lots 759 and 760: the two paid lots along Irving Tabor Court, between Electric Avenue and Abbot Kinney Boulevard that contain a combined 116 spaces. These two lots were constructed in 2008, and, while the fund has accumulated over $400,000 in revenue since then, it has not been used to build or

mitigate additional parking spaces. An additional $150,000 of the in-lieu program funds was used to support the parking and transportation planning services for the Venice Local Coastal Program.

As of October 2020, the fund balance stood at almost $700,000. Given the extent the fees have had on mitigating parking impacts, the effectiveness of the current in-lieu program is mixed, and there are several reasons for this, including the following:

1. In-lieu fees have been collected for approximately 56 parking spaces since 2003, during which time, the fund has paid for the construction of 116 surface lot spaces.
2. Public land available to construct additional parking is limited in the Venice Coastal Zone and property values have been prohibitively high for the City to purchase land for parking. For several years, the Los Angeles County Metropolitan Transportation Authority (Metro)-owned bus maintenance facility located at 100 Sunset Avenue was discussed as a potential parking location for the city, but it is now planned for workforce housing and other uses. The 3.12-acre site is located three blocks from Venice Beach and within a half-mile radius of Abbot Kinney Boulevard. The transit facility was decommissioned in 2016 and Metro is planning it as a transit-oriented, mixed-use development with, at most, 100 parking stalls for public use (Los Angeles County Metropolitan Transportation Authority 2019).
3. In the absence of publicly owned land on which to construct surface parking, the cost of providing one structured parking space in the Venice Coastal Zone far exceeds the $18,000 per space in revenue that the program generates. Therefore, projects that propose to comply with parking using in-lieu fees are rarely approved by the Coastal Commission.
4. The one-time, lump-sum fee is an obstacle to many smaller businesses.
5. The plan for how the program revenue is used has not been updated since 2004, when the Parking Trust Fund was outlined in Section 14 of the Venice Coastal Zone Specific Plan.
6. There is no guarantee that funds will be used to mitigate parking impacts in areas near the business paying into the program.

A review of parking in-lieu fee programs of five other nearby cities (three within the coastal zone) revealed that many are challenged for similar reasons. The following offers a summary of findings in each city studied:

| | |
|---|---|
| **1. City of Hermosa Beach**<br>Coastal Zone | Parking in-lieu fee was implemented in 1993 and last modified in 2014. The program has funded construction of 25 parking spaces at "The Strand"; has run a shuttle service during holidays and special events; and it has funded a parking study. |
| **2. City of Ventura**<br>Coastal Zone | Ventura raised its fee from $1,000 per space around 2006, to almost $30,000. Since then, no one has chosen the in-lieu fee option. |

| | |
|---|---|
| **3. City of Santa Monica**<br>Coastal Zone | A parking developer fee has been in place since 1986. It was revised to a parking in-lieu fee in 2012 and set at an intentionally low rate of $20,000 in order to stimulate real estate development and support the City's efforts to create a shared parking district. The City of Santa Monica has a parking in-lieu program where the fee is set well below the cost of constructing parking, and businesses can pay the in-lieu fee for up to 100% of their required parking. |
| **4. City of West Hollywood** | Parking in-lieu fee program was replaced with a parking credits program in 2012 after determining that many businesses, especially restaurants, were unable to pay the lump sum fee. |
| **5. City of Beverly Hills** | Parking in-lieu fee program is currently being reviewed. It was first implemented in 1976 and updated in 1994. Restaurants, in particular, have difficulty paying the fee, which is set around $40,000 per space, depending on the location of the business. |

### 3.5.2 Updated In-Lieu Fee Analysis

The California Mitigation Fee Act[14] established a statewide procedure for exacting development impact fees. This legislation requires jurisdictions to make certain findings in order to establish a fee, as summarized in Government Code Section 66001 below:

*(a) In any action establishing, increasing, or imposing a fee as a condition of approval of a development project by a local agency, the local agency shall do all of the following:*

(1) *Identify the purpose of the fee.*

(2) *Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan as specified in Section 65403 or 66002, may be made in applicable general or specific plan requirements, or may be made in other public documents that identify the public facilities for which the fee is charged.*

[14] The Mitigation Fee Act (Government Code § 66000 *et seq*.) provides the requirements for development impact fee programs and was adopted in 1987 under AB 1600.

(3) *Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.*

(4) *Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.*

*(b) In any action imposing a fee as a condition of approval of a development project by a local agency, the local agency shall determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.*

The following sections provide analysis to update the Venice Coastal Zone parking in-lieu fee while addressing each requirement of the Act.

### Purpose of the In-Lieu Fee

The purpose of the Venice Coastal Zone parking in-lieu fee is to allow businesses and developers to meet their minimum parking requirements by paying a fee when parking cannot reasonably be provided on site. The fee revenue will, in turn, be used to fund community-scale strategies to increase the parking supply, including increasing the functional supply of parking through improved management practices and reducing the demand for parking through transportation demand management strategies.

### Amount and Indexing

In order to update the in-lieu fee program, the fee itself should reflect the cost of constructing new parking. As shown in Table 26, the cost of constructing new parking ranges from approximately $14,000 to $95,000 per stall, depending on several factors, including whether it is a public or private entity constructing the parking structure (private builders are not bound by certain labor and other regulatory requirements that add to the cost for public entities); whether the parking structure requires building below ground, which is more expensive than building above ground; and whether the structure includes mechanization. The cost of constructing surface parking was not included in this analysis because public land available to construct a large surface lot is limited and high property values make the purchase of private land for public parking financially infeasible. This analysis assumes that any future public parking constructed in the Venice Coastal Zone will come in the form of above ground structures on existing surface lots.

As shown in Table 26, the average cost of publicly constructed, above ground parking is approximately $36,500 per stall. Since this is the type of parking most likely to be constructed in the Venice Coastal Zone, it is the most appropriate estimate for setting a revised parking in-lieu fee. By comparison, the average cost of publicly constructed below ground parking is approximately $71,000 per stall. The average cost of all publicly constructed parking is $46,800 per stall, and the average cost of privately constructed parking is $25,350 per stall. For reference, the existing Venice Coastal Zone parking in-lieu fee, set at $18,000 per stall in 1999 would be $28,536.41 in 2020 dollars, adjusted for inflation using the Consumer Price Index (CPI).

## Table 26: Parking Construction Costs

| Name/Location | Stalls | Cost per Stall | Year | Cost in 2020 Dollars[1] | Above/ Below Ground | Mechanized |
|---|---|---|---|---|---|---|
| ***Public Above Ground Structures*** | | | | | | |
| Intermodal Transportation Facility West[2] | 4,500 | $48,667 | 2019 | $50,361 | Above | No |
| West Hollywood City Hall[3] | 200 | $13,500 | 2018 | $14,187 | Above | Yes |
| Beverly Hills[4] | 300 | $37,523 | 2014 | $41,783 | Above | Yes |
| Santa Monica[5] | | $31,603 | 2012 | $36,317 | Above | No |
| Downtown Glendale[6] | | $17,113 | 2005 | $23,374 | Above | No |
| Downtown Glendale[6] | | $34,822 | 2005 | $47,563 | Above | No |
| Downtown Ventura[7] | | $30,564 | 2005 | $41,747 | Above | No |
| **Average – Public Above Ground Structures** | | | | **$36,476** | | |
| ***Public Below Ground Structures*** | | | | | | |
| Beverly Hills[4] | 159 | $86,178 | 2014 | $95,962 | Below | No |
| Beverly Hills[4] | 300 | $49,792 | 2014 | $55,445 | Both | Yes |
| Santa Monica[5] | | $53,775 | 2012 | $61,796 | Below | No |
| **Average – Public Below Ground Structures** | | | | **$71,068** | | |
| **Average – All Public Structures** | | | | **$46,854** | | |
| ***Private Structures*** | | | | | | |
| LA median parking structure cost[8] | | $22,334 | 2017 | $23,996 | | |
| LA average cost of construction[9] | | $27,000 | 2014 | $30,065 | Above | |
| Automated Parking Puzzle Lifts[10] | | $20,000 | 2016 | $21,989 | Above | Yes |
| **Average - Private** | | | | **$25,350** | | |
| **Average - Public and Private** | | | | **$41,891** | | |

Notes:

1. Estimated using Consumer Price Index (CPI) Inflation Calculator from https://data.bls.gov/cgi-bin/cpicalc.pl
2. "LAX Intermodal Transportation Facility – West Parking Structure." Accessed from https://watrydesign.com/project/lax-intermodal-transportation-facility-west-parking-structure, February 2, 2021.
3. "How This WeHo Garage Makes Parking Easy, Cost-Effective And Sustainable." Travis Gonzalez. Bisnow. May 14, 2018. https://www.bisnow.com/los-angeles/news/technology/the-la-garage-that-makes-finding-parking-a-pleasant-experience-87882
4. *Beverly Hills In-Lieu Parking Study Final Report*. Nelson\Nygaard Consulting Associates, 2014, p.ES-4.
5. *Downtown Parking In-Lieu Fee Draft Report.* City of Santa Monica, 2012, p.ES-2. Source: City of Santa Monica Architecture Services Division.
6. *Glendale Downtown Mobility Study*. City of Glendale, 2007, p.5-57.
7. *Downtown Ventura Mobility & Parking Plan*, City of San Buenaventura, 2006, p.2-56.
8. "Parking Structure Cost Outlook for 2017." Gary Cudney.Accessed from https://denver.streetsblog.org/wp-content/uploads/sites/14/2017/10/2017-Cost-Article.pdf, February 2, 2021.
9. "The High Cost of Minimum Parking Requirements," Donald Shoup. 2014. Parking: Issues and Policies. Transport and Sustainability, Volume 5, 87-113.
10. "To Build or Not to Build Parking: Automated Parking Lifts Have Changed the Rules." December 13, 2016. CityLift News. Accessed from https://cityliftparking.com/build-not-build-parking-automated-parking-lifts-changed-rules.

The parking in-lieu fee should reflect the cost of constructing new parking. The current fee has been set at $18,000 per stall since the program's inception in 2004. Revising the fee to $36,500 per space would bring it in line with the current cost of constructing a single parking space in a public, above ground parking structure.

The parking in-lieu fee should also be increased (or decreased) annually according to the most recent Construction Cost Index for the Los Angeles region or an equivalent index, as determined by LADOT, to be consistent with the annual adjustment made to the transportation impact fees in the area. Construction costs include the cost of labor and materials, both of which change with broader trends in the regional and national economies, as well as international markets. Trade and other policies also have an impact on construction costs. Several construction cost indices show the rising costs of non-building construction in recent years. Indexing the in-lieu fee to construction costs or a similar measure of inflation will help ensure it remains reasonably reflective of the cost of constructing new parking. In this way, indexing the fee to construction costs will also address one of the shortcomings of the fee program in recent years; namely, that the cost of providing new parking exceeds the revenue generated by the fee.

Table 27 provides an estimate of parking in-lieu fee program revenue over 10 years, using the average annual fees paid in-lieu of parking between 2010 and 2019. During those 10 years, fees were paid in-lieu of 18 on-site parking spaces, for an annual average of two spaces, rounded. This revenue estimate also assumes a 3% annual increase in the fee amount to account for inflation. According to this fee schedule, the program would generate $836,863 over 10 years. Table 27 also shows the running balance of the account, including a starting balance of $694,350.82. This scenario is speculative as to how popular the program will be. Revenue may fall short of these estimates, or it may exceed these estimates, depending on the broader development context in the Venice Coastal Zone and how many new developments choose to use the fee program in lieu of providing parking on site.

**Table 27: Venice Coastal Zone Parking In-Lieu Fee Revenue Estimates, 10 Years**

| Year | In-Lieu Spaces | Fee | Revenue per Year | Balance |
|---|---|---|---|---|
| 0 | - | - | - | $694,351 |
| 1 | 2 | $36,500 | $73,000 | $767,351 |
| 2 | 2 | $37,595.00 | $75,190 | $842,541 |
| 3 | 2 | $38,722.85 | $77,446 | $919,987 |
| 4 | 2 | $39,884.54 | $79,769 | $999,756 |
| 5 | 2 | $41,081.07 | $82,162 | $1,081,918 |
| 6 | 2 | $42,313.50 | $84,627 | $1,166,545 |
| 7 | 2 | $43,582.91 | $87,166 | $1,253,711 |
| 8 | 2 | $44,890.40 | $89,781 | $1,343,491 |
| 9 | 2 | $46,237.11 | $92,474 | $1,435,966 |
| 10 | 2 | $47,624.22 | $95,248 | $1,531,214 |
| | | **Total** | **$836,863** | |

Source: Fehr & Peers, 2021.

### Use of the In-Lieu Fee Revenue

The in-lieu fee revenue could be used to fund the construction of parking lifts or structures on existing City-owned surface lots. It is worth noting, however, that the revenue scenario presented in Table 27 does not make structured parking a likely feasible strategy. Based on the last 10 years of the parking in-lieu fee program, the fee was paid in lieu of two spaces per year, on average. If the program continues at a similar rate, it would take 50 years to collect enough revenue to build a 100 space parking structure. Therefore, even with an increase in the fee amount, the in-lieu fees will not generate enough revenue to justify a large construction project. Consequently, revenue from the in-lieu fee program could be used to fund the parking management and transportation demand management strategies described in Chapter 4.2 and 4.3, respectively. Table 28 summarizes these strategies, which are designed to increase the functional supply of parking in the Venice Coastal Zone, manage existing parking supplies more efficiently, and improve options for alternatives to driving and parking in the area. These strategies are designed to serve residents, employees, visitors, and tourists in the Venice Coastal Zone.

**Table 28: Venice Coastal Zone Parking In-Lieu Fee Program Potential Expenditures**

| Strategy | Detailed Description |
|---|---|
| 1. Pricing and Payment Strategies in Public Off-Street Lots | Install meters or pay stations in LADOT Lots 616 and 617 |
| | Automate beach lots and LADOT Lots 701 and 731 with pay stations or parking access and revenue controls |
| 2. Valet Parking in Beach Lots | Re-stripe portions of each lot for stacking by valet attendants |
| | Contract with a valet service to operate the valet parking |
| 3. Angled On-Street Parking | Convert parallel parking to angled on-street parking on Grand Boulevard between Windward Circle and Venice Boulevard |
| 4. Increase Regional Transit Service | Partner with transit agencies to reduce headways to 10 minutes or less and extend service into the late evening and on weekends |
| 5. Local Circulator/Shuttle Service | Partner with LADOT to extend LA*now* pilot and/or with Circuit Ride or other organizations to provide local circulator/shuttle service |
| 6. Bikeshare System | Expand programs to offer docking stations or branded parking stations on every block |
| | Subsidize annual memberships for Venice Coastal Zone residents |
| 7. Network of Mobility Hubs | Build a high-density network of Mobility Hubs |
| 8. Coordinated Wayfinding and Signage | Implement area-wide wayfinding and informational signs |
| 9. Carshare System | Partner with vendors to provide at least one parking space per block |
| | Subsidize annual memberships for Venice Coastal Zone residents |
| 10. Curb Management System | Implement LA Express Park or other curb management system to optimize curb use |
| | Contract with a valet service to provide park once opportunities, using the beach lots and LADOT Lots 701 and 731 for coordinated valet |
| 11. Transportation Network Improvements for Bicyclists and Pedestrians | Upgrade existing bike lanes to protected bike lanes |
| | Upgrade existing sharrowed bike routes to bike lanes |
| | Improve pedestrian facilities in Pedestrian Enhanced Districts |
| 12. Parking Facilities | Construct new parking structures where appropriate. Improve capacity and operations of existing parking facilities. |

Source: Fehr & Peers, 2019.

### 3.5.3 Findings and Recommendations

This section of the report describes the process for updating the existing in-lieu fee program in a manner that addresses the issues and concerns brought forth by the Coastal Commission, recommending a revised in-lieu fee of $36,500. Increasing the fee to $36,500 per space addresses the concern that the current in-lieu fee ($18,000) is significantly less than the cost of providing a parking space. The fee increase to $36,500 is calculated using recent estimated construction costs of public above ground parking structures.

In response to the concern that the City does not have a plan to use the fees to mitigate the parking impacts, the City is proposing to use the money from this fund to offset the cost of construction for a parking garage on lot 731. Further, this study proposes a spending plan that includes the construction of new parking facilities. Because the recommended increase in the in-lieu fee accounts for the average costs of constructing a new parking structure, it would be appropriate to allocate a portion of the fees collected to create new spaces to meet the parking demands of existing and proposed development. As property values continue to rise in Venice, acquiring private land for the development of public parking is prohibitively expensive and therefore not financially feasible. Given the challenges related to construction of a new parking structure, the City should consider unconventional and innovative approaches to increase the supply of parking, such as re-striping street parking, requiring mechanical lifts, and allowing underground levels of shared parking that span across multiple lots.

When the City revises the in-lieu fee amount, an expenditure plan should be established to improve the existing parking supply and minimize parking impacts from development. This recommendation is discussed in greater detail in Part 4.5.1 of this study. This report finds that the revised in-lieu fee, if used at the same rate that the existing program has been used, is unlikely to generate enough revenue to significantly increase the overall parking supply. It may generate enough revenue to implement limited parking management or transportation demand management strategies. A parking credits program is discussed as an alternative to the in-lieu program in Part 4.5.2 of this study.

## 3.6 Findings & Recommendations

The data collected and analyzed in this report are used to inform future policies and recommendations. Table 29 shows the relationship between the findings of Parts 2 and 3 to the recommendations discussed in Part 4.

**Table 29: Findings & Recommendations**

| Data, Analysis & Findings | Recommendation(s) |
|---|---|
| **2.4** Parking Supply | **4.2** Parking Management Strategies |
| **3.2** On- and Off-Street Parking | **4.2** Parking Management Strategies (PM-S)<br>• PM-Strategy 2.i: On-street Parking<br>• PM-Strategy 2.ii: Off-street Parking |
| **3.3** Travel Behavior | **4.3** Transportation Demand Management Strategies |
| **3.4** Parking Requirements | **4.4** Revised Parking Requirements |
| **3.5** Parking In-Lieu Fee Program | **4.5** Recommended Parking Alternatives<br>• 4.5.1: Revised Parking in-lieu Fee Program<br>• 4.5.2: Parking Credits Program |

# Part IV: Recommendations

## 4.1 Introduction

Recommendations are described below and organized into four categories:

1. **Parking Management Strategies –** includes recommendations for managing existing parking supplies more efficiently.
2. **Transportation Demand Management Strategies –** includes recommendations for increasing access to the coast for all types of travelers, increasing flexibility for new development and change of use, and reducing the demand for parking resources.
3. **Parking Requirements –** includes potential modifications to parking ratios for future development to make the Venice Coastal Zone more consistent with City of LA requirements and other coastal cities.
4. **Parking Alternatives –** includes recommendations for repealing the current parking in-lieu fee program and replacing it with a parking credits program.

Together, these recommendations represent a menu of options for implementation in the near-, medium-, and long-term that also provide a coherent and comprehensive approach to mobility and parking in the Venice Coastal Zone.

Each recommended strategy is accompanied by an indication of its relative cost to implement, and relative effectiveness as follows. The recommendations are described in order of (1) lowest cost and (2) level of effectiveness.

| | | | |
|---|---|---|---|
| $ | Low cost (up to $500,000) | ✔ | Small and/or short-term potential benefit |
| $$ | Medium cost (up to $2 million) | ✔✔ | Medium level of benefit and/or medium-term improvement |
| $$$ | High cost (more than $2 million) | ✔✔<br>✔ | Greatest positive impact and/or longest potential benefit |

## 4.2 Parking Management Strategies

This section describes parking management strategies that can be implemented to improve coastal access in the Venice Coastal Zone by increasing parking supply and managing the existing parking supply more efficiently. The analysis presented in this report suggests that while there is sufficient parking available throughout the Venice Coastal Zone, demand is unevenly distributed.

Future trends in transportation, such as autonomous vehicles and shared vehicle fleets, could greatly reduce future parking demand in Venice. Airports and hotels, which, like the Venice Coastal Zone, experience high traffic from tourists, are already seeing declines in parking revenue and demand as a result of TNCs such as Uber and Lyft.[15]

### 4.2.1 Parking Management Objectives

To serve a wide range of transportation needs, parking management strategies in this report are recommended with the following objectives in mind:

- Encourage walking, bicycling, and other active modes as alternatives to driving (and parking) in the area. Venice is already a popular area for walking, bicycling, and using skateboards and scooters. Encouraging increased trip-making by such active modes not only supports the City's Mobility Plan priorities but can reduce demand for parking in the area.
- Use real-time information and better signage to guide vehicles to available parking supplies. Making parking more predictable and providing those who drive with better information can help improve access to the beach and other destinations throughout the Venice Coastal Zone.
- Price on-street parking according to demand. Encourage long-term parkers to use off-street supplies. Use meters and time restrictions to regulate on-street parking and encourage its use by those parking for short periods of time (two hours or less). Incentivizing short-term use of on-street parking and long-term use of off-street facilities can help discourage vehicles from circulating through residential and other neighborhoods, looking for parking and posing a potential conflict with those walking, bicycling, and using other active modes.
- Use Preferential Parking Districts when appropriate to maintain access to on-street parking for residents. Encourage visitors and local employees to use off-street lots.
- Expand options in public lots to accommodate more ways to park, including valet (stacked) parking and short-term parking options. Current pricing in beach lots incentivizes those who park the entire day. Offering short-term visitors the option to use beach lots—at an hourly rather than flat rate—can encourage better use of underutilized public lots. Partner with local businesses to use underutilized public lots to create a park once district. The most underutilized lots, owned and

[15] "Airports, facing growth of ride-hailing apps, enhance parking technology." The Bond Buyer. March 5, 2018. https://www.bondbuyer.com/news/airports-guard-parking-revenues-against-ride-hailing-services
"Parking Demand Trends: The Impact of Transportation Network Cos." Adina Marcut. Commercial Property Executive. April 2, 2018. https://www.cpexecutive.com/post/parking-demand-trends-the-impact-of-transportation-network-cos/

operated by LADOT, can better serve both demand for parking near the beach and demand for parking near the Abbot Kinney commercial corridor.

- Enforce parking restrictions to maintain compliance and support a coherent parking management program throughout the Venice Coastal Zone.
- Consider creating a Parking Benefits District to keep parking revenue local.
- Increase parking supply, and functional supply, strategically in areas of high demand.
- Develop Shared Parking Agreements.

### 4.2.2 Parking Management Recommendations

The strategies described below prioritize options for improving the operations of parking in Venice without requiring large capital outlays by the City. These options do not lock the City into fixed assets (such as large parking structures) that may not be financially viable in the future.

Across the Venice Coastal Zone, we recommend the following nine Parking Management strategies:

1. Pricing and Payment Strategies
2. Parking Restrictions
3. Valet Parking in Beach Lots
4. Preferential Parking Districts
5. Enforcement
6. Park Once District and Coordinated Valet
7. Parking Benefits District
8. Angled On-street Parking
9. Shared Parking Agreements

Each of these strategies are discussed in greater detail below.

**Table 30: Summary of Parking Management Strategies**

| PM # | Strategy | Parking Affected | Description | Cost | Effectiveness | Lead Agency and Supporting Agencies |
|---|---|---|---|---|---|---|
| PM-S1. | Pricing and Payment Strategies | Off-Street & On-Street | Encourage short-term parking in on-street spaces and longer-term parking in off-street lots. Pricing to reflect proximity to the beach. | $ | ✔✔ ✔ | **LADOT** |
| PM-S1.i. | LA Express Park™ | On-Street | Installation of LA Express Park™ meters to reduce the time spent looking for parking and optimize the flow of traffic. | | | **LADOT**, BOE |

**Table 30: Summary of Parking Management Strategies**

| PM # | Strategy | Parking Affected | Description | Cost | Effectiveness | Lead Agency and Supporting Agencies |
|---|---|---|---|---|---|---|
| PM-S.1.ii. | Public Lots | Off-Street | Pricing to encourage short-term parking and higher turnover in highly trafficked areas. Eliminating free parking in public lots. | | | **LADOT, B&H**, DCP |
| PM-S2. | Parking Restrictions | Off-Street & On-Street | Limit on-street parking to two hours. Establish a preferential parking program with permit holders exempted in residential areas. | $ | ✔✔✔ | **LADOT**, CCC |
| PM-S2.i. | On-Street Parking | On-Street | Revise parking time limits to increase turnover in high demand areas. | | | **LADOT** |
| PM-S2.ii. | Off-Street Parking | Off-Street | | | | **LADOT**, DCP |
| PM-S3. | Valet Parking in Beach Lots | Off-Street | Restripe beach lots to reserve some space for stacked parking by valet attendants during peak periods of parking demand. | $ | ✔✔✔ | **B&H** |
| PM-S4. | Preferential Parking Districts | On-Street | Prioritize parking for residents on residential streets to discourage visitors from circulating. | $ | ✔✔✔ | LADOT, CCC |
| PM-S5. | Enforcement | On-Street | Enforce time limits of on-street parking spaces. | $ | ✔✔ | **LADOT, LAPD**, BSS |
| PM-S6. | Park Once District & Coordinated Valet | Off-Street | Implement coordinated valet to allow visitors to leave their vehicle in one location and pick up in another. | $ | ✔✔ | LADOT, DCP |
| PM-S7 | Parking Benefits District | Off-Street & On-Street | Reserve parking revenue for neighborhood improvements in the Venice Coastal Zone. | $ | ✔✔ | **LADOT,** DCP |
| PM-S8 | Angled On-street Parking | On-Street | Create more than 80 new spaces by converting to angled parking on Grand Blvd between Windward Circle and North Venice Blvd. | $ $ | ✔✔ | LADOT |
| PM-S9 | Shared Parking Agreements | Off-Street | Promote the use of shared parking agreements. | $ | ✔✔ | **DCP,** LADOT |

Legend: DCP (Department of City Planning), BOE (Bureau of Engineering), LADOT (Department of Transportation), B&H (Los Angeles County Department of Beaches and Harbor), BSS (Bureau of Street Services), METRO (Los Angeles County Metropolitan Transportation Authority)

### PM-S1. Pricing and Payment Strategies

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Parking pricing and payment technologies can aid in the management of parking. The price of parking is an important factor of any parking management program. Nearly all on-street parking in the Venice Coastal Zone is free and without time restrictions (aside from scheduled street cleaning). This encourages visitors to spend time circling through residential streets, searching for an available parking space, while publicly owned and operated lots are underutilized. Proper pricing, along with time restrictions, can help manage on-street and off-street parking supplies more efficiently and improve access for everyone. In general, on-street parking should serve short-term visitors who are willing to pay to park as close to their destination as possible. Off-street lots should be priced to incentivize visitors planning to park for longer. With a coordinated and rational pricing scheme, parking will be more predictable; pricing can be adjusted based on demand and ensure an optimal number of available spaces. Visitors will know what to expect and where to find available parking and at what price. Equipping motorists with better information on parking availability helps to reduce unnecessary vehicle miles traveled (VMT) in the area, which in turn reduces greenhouse gas (GHG) emissions. This report presents two pricing and payment strategies: the implementation of Express Park, an existing program to update metered spaces to capture parking data, and the calibration of fees charged at public lots.

#### *PM-S1.i. LA Express Park™*

LA Express Park™ is an enhanced parking meter program that uses real-time data from sensors and mobile technology to better manage on-street parking supply. The purpose of the program is to use technology to increase the availability of limited parking spaces, reduce traffic congestion and air pollution, and encourage the use of alternative modes of transportation. Managed by LADOT, LA Express Park™ shows parking availability to drivers, encourages multi-modality, and reduces vehicle congestion produced by drivers cruising through neighborhood streets in search of parking. It does so by varying the cost of metered on-street parking according to observed demand on a space-by-space basis. Online and phone-based apps provide drivers real-time pricing and location of parking spaces in LA Express Park™ areas.

In the Venice Coastal Zone, approximately 300 sensors covering 318 parking spaces have been installed. Of those 318 parking spaces, 187 are single space parking meters and 131 are pay station spaces. LADOT is currently implementing LA Express Parking in Venice. This report recommends LA Express Park™ meters on all street segments that do not abut a residential property frontage. LADOT's policy prohibits the installation of parking meters in front of residential properties to maintain availability for residents of the property and adjacent residential properties. This includes, but may not be limited to, the following segments, as shown in Figure 20.

1. Pacific Avenue from Sunset Avenue to /Thornton Place (east side only)

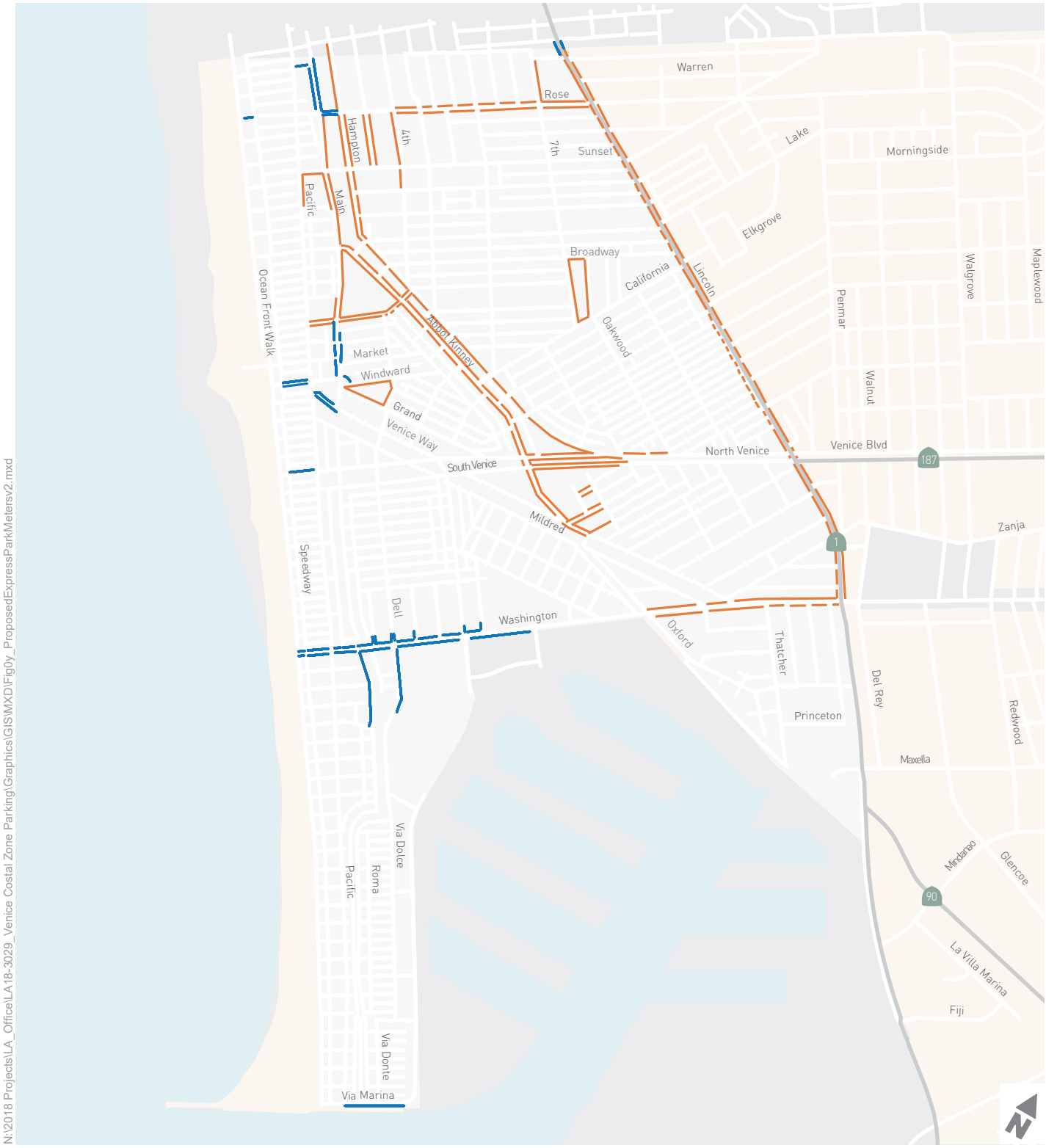
2. Sunset Avenue from Pacific Avenue to Main Street (south side only)
3. South Main Street from Rose Avenue to Paloma Avenue (east side only)
4. Main Street from Rose Avenue to Thornton Place (both sides of the street)
5. Main Street from Thornton Place to Clubhouse Avenue (east side only)
6. Main Street from Clubhouse Avenue to Westminster Avenue (both sides of the street)
7. Hampton Drive from Marine Court to Rose Avenue (west side only)
8. Hampton Drive from Rose Avenue to Brooks Avenue (both sides of the street)
9. Westminster Avenue from Pacific Avenue to Electric Avenue (both sides of the street)
10. Windward Avenue from Windward Circle to Riviera Avenue (south side only)
11. Grand Boulevard from Windward Circle to Riviera Avenue (north side only)
12. Riviera Avenue from Windward Avenue to Grand Boulevard (west side only)
13. 3rd Avenue from Rose Avenue to Sunset Avenue (both sides of the street)
14. 4th Avenue from Rose Avenue to Vernon Avenue (west side only)
15. Electric Avenue from Brooks Avenue to Venice Boulevard (south side only)
16. Abbot Kinney Boulevard from Main Street to Boccaccio Avenue (both sides of the street)
17. Rose Avenue from 4th Avenue to Lincoln Boulevard (both sides of the street)
18. North and South Venice Boulevard from Abbot Kinney Boulevard to Shell Court (both sides of the street)
19. North Venice Boulevard from Shell Court to Oakwood Avenue (north side only)
20. Venezia Avenue from Zeno Place to Narcissus Court (both sides of the street)
21. Victoria Avenue from Zeno Place to Abbot Kinney Boulevard (both sides of the street)
22. Boccaccio Avenue from Zeno Place to Abbot Kinney Boulevard (north side only)
23. 7th Avenue from Machado Drive to Rose Avenue (east side only)
24. 7th Avenue from Broadway Street to California Avenue (east side only)
25. Broadway Street from 7th Avenue to Oakwood Avenue (south side only)
26. California Avenue from 7th Avenue to Oakwood Avenue (north side only)
27. Oakwood Avenue from Broadway Street to California Avenue (west side only)
28. Lincoln Boulevard through the extent of the Venice Coastal Zone (both sides of the street)
29. Washington Boulevard from Abbot Kinney Boulevard to Lincoln Boulevard (both sides of the street)

Existing meters on the following street segments are recommended to be converted to LA Express Park™ meters, as shown in blue in Figure 20.

- Navy Street from Pacific Avenue to Main Street (north side only)
- Main Street from Navy Street to Rose Avenue (both sides of the street)
- Rose Avenue from Speedway to Pacific Avenue (south side only)
- Rose Avenue from Main Street to Hampton Drive (both sides of the street)
- Main Street from Westminster Avenue to Windward Circle (both sides of the street)
- Windward Avenue from Speedway to Pacific Avenue (both sides of the street)
- Windward Circle from Main Street to Windward Avenue (both sides of the street)

- Venice Way from Pacific Avenue to Main Street (both sides of the street)
- North Venice Boulevard from Speedway to Pacific Avenue (north side only)
- Washington Boulevard (and side streets) from Venice Beach to Ocean Avenue (north side) and to Palawan Way (south side)
- Strongs Drive from Washington Boulevard to Driftwood Street (north side only)
- Via Dolce from Washington Boulevard to Dell Alley (both sides of the street)
- Via Marina from Pacific Avenue to Via Dolce (south side only)
- Lincoln Boulevard from Ozone Street to Machado Drive (both sides of the street)

An additional program option recommended for consideration would install meters along all street segments in the Beach Impact Zone, including residential streets, with provision for residents to register their vehicles and obtain permits to park without paying for meters. Such a program has been in place in the city of Hermosa Beach for several decades. Residents and employees who work within the Beach Impact Zone can obtain permits to park at the so-called "yellow post" meters without paying. In addition to registering their own vehicles, one transferable guest placard is allotted per residence in the zone. Currently, no such permit program exists within the City of Los Angeles. Such a program would also conflict with implementation of a Preferential Parking District in the area. Unless the City of Los Angeles decides to implement a permit program similar to that in Hermosa Beach to allow residents with permits to park at meters without paying, extending LA Express Park™ to residential streets is not recommended.

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Existing Meters to be Converted to ExpressPark

Proposed ExpressPark Meters

Figure 20

Proposed Locations for ExpressPark Expansion in the Venice Coastal Zone

### *PM-S.1.ii. Public Lots*

Public lot parking spaces account for 73% of the off-street parking supply in Venice that is accessible to the public. Some lots charge a fee for parking while others do not. Analysis of occupancy data of off-street parking showed that free parking located at LADOT Lots 616 and 617 on Irving Tabor Court experienced higher occupancy across all time periods than LADOT Lots 759 and 760, which are priced. To increase turnover and avail short-term parking to more visitors, this study recommends installing meters and charging for parking at Lots 616 and 617.

Several public lots are located adjacent to the beach. The County-operated beach lots located off Rose Avenue, Venice Boulevard, and Washington Boulevard are currently priced to encourage long-term parking. Automating the lots with pay stations or providing the option to valet would allow for these beach lots to facilitate both short-term and long-term parking. Providing more short-term parking options at a reduced price can encourage turnover and increase access to the coast.

Analysis of off-street parking occupancy data showed that LADOT Lots 701 and 731[16] are the least utilized off-street facilities in the Venice Coastal Zone. Improving access to these lots through better wayfinding and signage is discussed as a demand management strategy below. Combining such approaches with strategic pricing could further improve utilization at these lots. As vehicles move westward down North Venice Boulevard to access the beach, they contribute to congestion and potential conflict with pedestrians, bicyclists, and other active modes. Proximity to the beach should serve as a mechanism of pricing these two lots competitively with one another as well as other lots in the area. Rather than prioritizing parking in Lot 731 and using Lot 701 as overflow parking, as the lots are currently managed, it is recommended that the lots be priced to incentivize the opposite effect: Lot 701 should be priced lower than Lot 731 to encourage vehicles to park earlier and farther east.

**PM-S2. Parking Restrictions**

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Time limits are perhaps the simplest way to control the use of on-street parking. Time-based parking restrictions prohibit parking for certain periods to preserve roadway capacity during peak commuting periods and to save parking resources for particular user groups. In residential areas adjacent to commercial areas, parking time limits are used to discourage long-term parking by employees of nearby businesses. In commercial areas, typically by petition of the business/property owners, time limits are used to encourage turnover of parking spaces to provide short-term parking for visitors. Time restrictions for parking in Venice should balance the needs of beachgoers with those of residents, employees, and customers visiting local businesses. Time restrictions are intended to increase the efficiency of parking and should not limit or decrease public access to the coast.

Time limits, along with pricing, can also help incentivize users to park in particular facilities, depending on the activity they are accessing. On-street parking, which is in high demand due to its convenience, should

[16] See footnote 7.

have shorter time limits to encourage turnover. Off-street lots should have more generous time limits to encourage their use by those parking for longer periods of time and those looking to save money by walking farther to get to their destination. It is important that on-street parking spaces and publicly owned and operated lots have a coherent and complementary set of regulations. Currently, nearly all on-street parking in the Venice Coastal Zone is free and without time limits. Visitors to the beach have little incentive, therefore, to park in an off-street lot. Instead, they may spend a lot of time circling throughout the residential neighborhoods in Venice, looking for an available space. This behavior not only adds unnecessarily to vehicle miles traveled (VMT) and greenhouse gas emissions but degrades the environment for those walking, bicycling, and using other active modes.

*PM-S2.i. On-Street Parking*

Where meters are recommended in this report, the following time limits are recommended:

- On segments adjacent to schools: two-hour limits, except during school pick-up and drop-off times, when there is no parking or 15-minute passenger loading
- On segments adjacent to commercial uses: two-hour limits
- On segments adjacent to industrial uses: two-hour limits
- On segments adjacent to open space and/or public facilities: two-hour limits

On unmetered street segments adjacent to and located in residential areas, time limits of two-hours are recommended. Residents and businesses seeking to change time limits may submit requests through LADOT. For example, to request a new green curb zone (for 15- or 30-minute parking only), residents or businesses may submit a service request using an online form.

*PM-S2.ii. Off-Street Parking*

Off-street parking in Venice is mainly found in surface parking lots. Analysis of off-street parking occupancy data found that LADOT Lot 740, which has about 40 spaces, experienced sub-optimal (80% or less) occupancy during the summer. Increasing the current two-hour time limit to four hours during summer months (or year-round) may increase the utilization of this lot because visitors would be able to park for a longer period of time.

### PM-S3. Valet Parking in Beach Lots

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Valet parking operations can increase the supply of parking for visitors. Beach parking is a highly coveted commodity in Venice due to its scarcity. The County-operated lots located on the beach at Rose Avenue, Venice Boulevard, and Washington Boulevard currently operate at over 80% occupancy from 10 am to 6 pm on summer weekends. In all three of the beach lots, reserving some portion of the lots for valet parking would further increase parking supply.

To facilitate valet parking in the beach lots, a portion of the parking lots could be restriped to include tandem parking spaces. The tandem parking spaces could be operated by valet attendants during peak periods of parking demand and could be utilized as single parking spaces during non-peak times when valet operation is not needed.

The valet operations in the beach lots could also provide a short-term parking option for visitors. The beach lots currently cost a flat rate that is based on the time of day, day of week, and time of the year. However, the cost does not vary based on the amount of time a vehicle is parked. Offering short-term parking through valet operations would have the benefit of serving beachgoers with more options.

### PM-S4. Preferential Parking District(s)

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The City of Los Angeles allows for the designation of Preferential Parking Districts (PPDs) to encourage carpooling and use of transit; limit intrusion of non-residential and/or commuter parking into residential neighborhoods where such parking has negatively impacted the residential area; and to enhance the quality of life in residential neighborhoods by reducing noise, traffic hazards, and litter. A PPD program would establish areas where parking is time-limited for all vehicles except those belonging to residents and their guests, so long as they purchase and display parking permits.

Designating preferential parking districts in the Venice Coastal Zone would accommodate visitors to the beach in parking for short periods of time (for example, up to two hours) while encouraging beachgoers planning to spend more time to utilize off-street parking. In this way, PPDs could also have the effect of discouraging circulation through residential streets and therefore decreasing potential conflicts with pedestrians, bicyclists, and other active modes. Without preferential parking districts, other parking and transportation demand management strategies recommended here are less likely to be effective. Visitors to the Venice Coastal Zone have the impression that parking is available for free for unlimited periods of time, if they just search for it. This perception of available and unrestricted free parking is an incentive not to use off-street paid parking.

Limiting on-street parking to two hours for visitors in preferential parking districts can help improve access to the coast and increase the functional supply of parking throughout the Venice Coastal Zone by supporting increased turnover of on-street parking spaces. Residents can take initiative to designate a PPD with a letter of interest from a neighborhood representative. The process then involves an initial meeting with LADOT, a trial of less restrictive measures (if these measures can address parking concerns), petitioning residents, conducting surveys and studies to assess the state of parking, making recommendations based on the surveys and studies' findings, and a public hearing to inform the public of findings and take public comments. The establishment of a PPD is contingent upon approval from both City Council and the California Coastal Commission.

Three types of parking permits are proposed: Annual Permits, Visitor Permits, and Guest Permits. Residents and visitors can purchase permits online or in-person at one of the Development Service

Centers. Residents in a PPD can obtain Annual Permits for $34, and households can receive up to three Annual Permits per year. PPD residents can purchase Visitor Permits for $22.50 for a four-month period and are limited to two Visitor Permits per four-month period. An unlimited number of one-day Guest Permits can be purchased for $2.50 per permit.

As currently practiced, the City's PPD program does have limitations that may affect outcomes in the Venice Coastal Zone. For example, residents could purchase an unlimited number of one-day Guest Permits for $2.50 per permit and sell them to visitors for a profit. Residents could similarly buy and sell Visitor Permits through an unauthorized market.

### PM-S5. Enforcement

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Field observations and analysis of parking duration and meter data showed that many vehicles violate current parking time restrictions in the Venice Coastal Zone. Analysis of a sample of streets showed that 50% of vehicles parked in time-restricted on-street parking spaces did so in violation of posted time restrictions. Greater enforcement of such restrictions can help manage the supply of parking more efficiently and ensure that public access to the coast, as well as to various businesses and commercial uses are maintained. Expanding LA Express Park™ in Venice can help facilitate enforcement, because meters easily communicate to enforcement agents whether a parked vehicle is violating the meter's time limit. Other available technologies use sensors installed in the pavement to communicate with meters and signal to enforcement agents—via an app or device—where vehicles are parked in violation of meter limits. If the City chooses to increase parking enforcement, it is recommended that the enforcement agencies provide sufficient notice to those who might be ticketed. Non-metered spaces, which are monitored manually, are a challenge to enforce.

### PM-S6. Park Once District & Coordinated Valet

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A Park Once District allows visitors to access multiple destinations without having to drive between trips. Operating like an expanded valet program, drivers drop off their vehicle and keys in one place and then pick up their vehicle in a different location. People are encouraged to park in one place and then make stops on foot rather than driving from one destination to another within the district, as you would with a car-oriented strip mall area. Smartphone apps now make it possible for vehicle owners to "call" for their vehicle before they arrive at their selected pick-up location. A true Park Once District is one that involves centralized, shared parking facilities that provide pedestrian connections at multiple destinations. The city of Culver City is an example of a city that offers such public valet service in addition to public parking structures around its downtown area.

In the Venice Coastal Zone, the large supply of publicly owned off-street parking lots offers an opportunity to provide Park Once Districts using coordinated valet, which has the benefit of providing convenience to motorists while also utilizing existing parking supply more efficiently. Valet parking

achieves greater density of parking than is possible with self-parking, because valet parked cars can be stacked. It also encourages the use of off-street parking supplies where those facilities may not be within five minutes walking of a motorist's destination.

Analysis of on-street and off-street parking occupancy data for the Venice Coastal Zone found that LADOT Lots 701 and 731[17] are underutilized throughout the day on a non-summer weekend day. These lots are located within convenient driving distance of both the beach and the commercial corridor along Abbot Kinney Boulevard. While the LADOT lots closest to Abbot Kinney Boulevard are fully occupied by 10 am, Lots 701 and 731 together remain less than 40% full. By 2 pm, the lots near Abbot Kinney remain fully occupied, while the County-owned beach lot at Venice Boulevard is also over 90% occupied. At the same time, Lots 701 and 731 remain below 40%. During these peak periods, the ability to use Lots 701 and 731 as a valet lot could help balance the occupancy of the different lots and prevent an over-concentration of parking in high-demand areas.

At least one valet company, contracted with several businesses along Abbot Kinney Boulevard, currently provides the option of dropping off a vehicle at one location and picking it up at another. Because the local businesses do not coordinate to provide this service, the range of pick-up and drop-off locations is limited. A coordinated valet program that involved many more businesses and used underutilized public lots could offer visitors the opportunity to park once in Venice and visit multiple destinations, including the beach. Walking, bicycling, scooters, transit, and TNCs offer options to move around Venice once parked.

### PM-S7. Parking Benefits District

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In Parking Benefits Districts (PBD), revenues from parking meters and fees are collected and reinvested within the district to fund neighborhood improvements, such as street sweeping, tree planting and trimming, sidewalk and street repair, and street lighting, signage and signalization. The City of Los Angeles has approved a PBD pilot program, which will help identify best practices for the city's diverse neighborhoods and commercial districts. Nearby cities with PBDs include Pasadena, Ventura, and San Diego. The Venice Coastal Zone is an ideal setting for a PBD because of its unique character and the many tourists who come from across the world.

### PM-S8. Angled On-Street Parking

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Angled parking presents an opportunity to increase parking supply using the city's existing streets. Some design requirements and recommendations exist, but there are options in designing and implementing angled parking, including the degree of angle. Front-in angled parking exists along portions of Rose Avenue, Windward Avenue, and Washington Boulevard in the Venice Coastal Zone.

[17] See footnote 7.

The LADOT Complete Streets Design Guide includes several design specifications for back-in angled parking, which is recommended as a safer alternative to front-in angled parking. A single parking stall should be 8 feet wide by 16 feet long with a maximum overhang (the area between the curb and the sidewalk) of 2 feet. Angled parking can coexist with other street features, including bike lanes, wide sidewalks, medians, and center turn lanes. Wide streets with low volumes of traffic are prime candidates for angled parking, which can increase on-street parking supply as compared to conventional parallel parking along the curb.

As shown in Table 31, Grand Boulevard between Windward Circle and North Venice Boulevard was evaluated for the feasibility of accommodating angled parking. Converting to angled parking on this stretch of Grand Boulevard could add an additional 87 on-street parking spaces where demand is among the highest while maintaining the existing bike lanes. Throughout the Venice Coastal Zone, the relatively narrow width of other roadways precludes increasing parking supply with angled parking.

**Table 31: Potential Parking Supply Increase in the Venice Coastal Zone**

| Street Name | From | To | ROW Width | Travel Lanes | Bike Lane | Existing Parking Supply | Potential Angled Parking Supply | Quantity Increase | Percent Increase |
|---|---|---|---|---|---|---|---|---|---|
| Grand Blvd | Windward Cir | Venice Blvd | 74 feet | 3 | Yes | 125 | 212 | 87 | 70% |
| Total | | | | | | 125 | 212 | 87 | 70% |

Source: Fehr & Peers, 2019.

### PM-S9. Shared Parking Agreements

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The concept of shared parking involves the use of a parking space to serve two or more land uses without conflict. Its intended impact is to maximize the usage of parking spaces, as most parking spaces are only used part of the time by a particular user group or for a particular facility. These opportunities typically occur between a public and private entity, or multiple private entities. The most common shared public-private parking agreements allow owners of private parking lots, which often serve customers within a specific timeframe, to open their parking lots to the public during other times. This can benefit the community, because it provides additional parking without the city having to construct it; and can benefit the private lot owner, because if parking charges are collected, the owner can collect some or all of the revenue. Liability, insurance, and security concerns can be obstacles to shared parking agreements; parking lot owners may be unwilling to take on additional liability for users not associated with their own business.

## 4.3 Transportation Demand Management

While many of the parking strategies directly address parking demand and supply, transportation demand management (TDM) strategies can also be implemented to manage demand for trip-making more broadly, which in turn affects demand for parking. TDM is a general term for strategies that increase overall road efficiency, often by encouraging a change from single-occupant vehicle (SOV) trips to alternative modes or shifting trips out of peak periods. Many factors determine whether people choose to travel by private vehicle, take transit, walk, bike, or use a shared mobility service. Among these factors are the purpose of their trip, the distance they need to travel, and the relative cost in time and money. In addition, characteristics of the traveler also inform mode choice. Someone's willingness to shift travel behavior may be based on perceived or actual stress and safety concerns associated with each mode choice, as well as physical limitations and preferences. Whether someone is a local resident, an employee who comes to Venice daily, an employee who comes to Venice infrequently, a local or regional visitor, or a tourist from farther afield may also influence their comfort and willingness to use modes of travel other than a private vehicle to get to and around the Venice Coastal Zone.

In addition, factors that characterize the built environment—such as building design, the availability of shade, and the presence of street lighting—influence people's willingness to shift to modes other than driving. When public transit is available and reliable, it can encourage a person's decision to leave their car at home.

A TDM program is a set of strategies that affect the travel mode someone chooses to use. TDMs typically include information and/or incentives to help people understand and use their transportation options in order to optimize all modes of travel. The TDM program needs to be tailored to the specific characteristics of both the trips and the travelers within the Venice Coastal Zone. Since demand for parking is directly related to the use of private vehicles, a TDM program that aims to reduce private vehicle trips and encourage the use of other modes can help reduce the demand for parking. To be effective, strategies

should appeal to those who are using private vehicles most heavily as well as those who are willing and able to shift their travel behavior.

The recommended strategies in this section focus on creating an area-wide TDM program that can be funded through impact fees, parking credits, and parking strategies that generate revenue. These strategies will increase access within the neighborhood and to the coast for all types of travelers in Venice, will increase flexibility for new development or change of use, and will reduce the demand for parking resources.

The remainder of this section is organized as follows:

- **Background** on tools to evaluate the effectiveness of TDM strategies, the relationship between trip reduction and parking reduction, and TDM tools and programs in the City of Los Angeles
- **Local Context** for the Venice Coastal Zone, including characteristics of trips and behaviors of travelers within the community
- **Recommended TDM Program for the Venice Coastal Zone**, including a package of area-wide strategies that can help reduce parking demand and provide more access for travelers in Venice

### 4.3.1 Background

To understand how effective a given TDM strategy will be at reducing trip-making, VMT, and/or parking demand, practitioners look to case study research from places that have implemented strategies and conducted before-and-after evaluations. The California Air Pollution Control Officers Association (CAPCOA) published a compendium of case studies in 2010, titled *Quantifying Greenhouse Gas Mitigation Measures,*[18] which includes an extensive section on transportation-related reduction measures, many of which may be relevant to the Venice Coastal Zone. The transportation GHG reduction measures are categorized in the report as follows:

- **Land Use/Location Strategies** capture elements that improve the location efficiency, diversity of land use, density of development, and other land use factors that have been shown to reduce vehicle trip-making. The strategies in this category reduce the demand for parking by enabling vehicle trips to be taken by other modes more conveniently, essentially by shortening the trip distance through land use changes.
- **Neighborhood/Site Enhancements** include strategies that address the built environment that surrounds land use development, including bike lanes, traffic calming, pedestrian zones, neighborhood electric vehicle (NEV) infrastructure, and parking for bikes and electric vehicles (EVs). These strategies reduce the demand for parking by creating an environment where people would feel safer and more comfortable taking a mode other than a vehicle to complete their trip, through the provision facilities that prioritize the safety and comfort of people traveling using modes other than a personal vehicle.

[18] CAPCOA. (2010). *Quantifying Greenhouse Gas Mitigation Measures.* Accessed from https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/capcoa_quantifying_ghg_measures.pdf

- **Parking Policy/Pricing Strategies** include options for reducing parking supply and/or pricing parking at residential, commercial, retail, and on-street locations. Pricing directly reduces demand for parking based on principles of behavioral economics: the more something costs, the less demand there will be for it.
- **Commute Trip Reduction Programs** include a variety of programming options and incentive programs that encourage people to use modes other than their personal vehicle by providing monetary (i.e., cash) or physical (i.e., premium parking) benefits to those who choose not to drive alone. These strategies vary widely from providing transit fare subsidies and parking "cash-out" incentives, to implementing carpool parking spaces and ride-matching programs to make carpooling easier. Many of these strategies directly reduce demand for parking but are targeted specifically to the commute trip and centered at the employer location. In addition, carpool strategies reduce some demand for parking but not as effectively as other strategies that shift trips away from personal vehicles altogether.
- **Transit System Improvements** include improvements to the transit options through new types of transit (such as bus rapid transit or local shuttles); increases or expansions in coverage, service hours, or frequency; and improvements to transit access amenities such as bike parking or transit shelters. These strategies can reduce demand for parking by shifting trips from personal vehicles to transit.
- **Road Pricing/Management** involves charging road users directly for the use of the road. These strategies can reduce demand for parking by reducing demand for driving.

Some strategies that are effective at reducing parking demand or shifting demand from peak periods of parking occupancy may be omitted from the CAPCOA report because they do not reduce VMT or GHG emissions. Some of these strategies have been documented with other empirical research, often through development-driven parking studies. Over time, new research periodically becomes available to document the reduction potential of emerging transportation strategies and management approaches. For the purposes of the Venice Coastal Zone TDM Program, we have prioritized TDM strategies that serve to more effectively reduce parking demand.

The City of Los Angeles has several policies that support the development and implementation of TDM strategies for the purposes of reducing trips, VMT, and demand for parking. The City's *Mobility Plan 2035* encourages the increased use of TDM measures to reduce SOV use,[19] and the California Coastal Act also calls for reducing VMT and providing transit use for beach access.[20] The City of Los Angeles also recently adopted an updated Coastal Transportation Corridor Specific Plan and West Los Angeles Transportation Improvement and Mitigation Specific Plan (CTCSP/WLA TIMP). Together, these plans advocate the use of TDM strategies and provide funding for parking management solutions and transportation management

[19] City of Los Angeles. (2016). *Mobility Plan 2035*.
[20] California Coastal Act. (2017). Ch. 2, Sec. 30252-3.

organizations (TMOs) through development fees.[21] Revenue from development fees may be invested in area-wide improvements, such bicycle and pedestrian facilities, transit station amenities, extensions or enhancements to current transit service, and VMT reduction programs.

At the project level, the permitting process is used to implement TDM strategies and enforce requirements related to parking. In July 2019, LADOT adopted revised Transportation Assessment Guidelines. The revised guidelines ushered in an important change in how transportation impacts are measured, requiring that vehicle miles traveled be considered the standard metric instead of level of service (LOS) during a project's environmental review. The revised guidelines also set new thresholds for when projects would need further analysis. For development projects that are anticipated to generate a net increase of 250 or more daily vehicle trips, the City of Los Angeles requires applicants to prepare a Transportation Assessment to understand the impact of the development on VMT.[22] If the project exceeds the City of Los Angeles' CEQA threshold for VMT, project applicants can mitigate their VMT impact using TDM strategies that reduce the project's VMT. The selection of these TDM strategies will be at the discretion of the project applicant.

In addition, the City of Los Angeles has a TDM Ordinance which is in the process of being updated. The Draft TDM Ordinance requires developments that exceed a certain size threshold to accumulate a corresponding number of points, associated with the implementation of TDM strategies. It is likely that many of the TDM strategies in the Draft TDM Ordinance will overlap with the mitigation strategies in the Transportation Assessment process. Project requirements also may be overlapping; some projects may not be required to produce a Transportation Assessment but may be required to implement TDM under the Ordinance. The Ordinance will likely apply to residential, commercial, mixed-use, and affordable housing projects. Like the Transportation Assessment suite of TDM options, the Ordinance is likely to include a suite of parking-related TDM strategies, which would reinforce the strategies recommended in this report.

Finally, the State of California encourages employers that employ more than 250 people to develop a TDM program through CARB's Rule 2202. This rule provides employers with a menu of emission reduction strategies that can be implemented to meet the designated emission reduction target for their worksite. Alternatively, employers may implement an Employee Commute Reduction Program (ECRP) that is expected to lead to achievement of the employer's designated average vehicle ridership (AVR) target, determined by the worksite's AVR Performance Zone. In addition, the state requires employers that employ more than 50 people to offer an equivalent monetary alternative instead of a free-to-the-employee parking space through the implementation of a parking cash-out program.

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[21] CDM Smith Inc. (2016). *Coastal Transportation Corridor Specific Plan and West Los Angeles Transportation Improvement and Mitigation Specific Plan (CTCSP/WLA TIMP) – Specific Plans Amendment Project Draft Environmental Impact Report.* The City of Los Angeles.

[22] City of Los Angeles (2019). *Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines.*

The TDM and parking strategies recommended in this report are consistent with the policy documents, tools, and resources for evaluation that are available at the state and local level. As area-wide TDM strategies are pursued in the Venice Coastal Zone, it will be critical for those reviewing and enforcing the various project-level tools to coordinate and ensure that a project applicant is appropriately meeting the various expectations and requirements. One question that will likely arise is whether a project applicant can take credit for a TDM strategy as a project feature simply by locating in the Venice Coastal Zone where the strategy is being implemented area-wide. These will be decisions that need to be addressed as each planning tool, resource, or guideline unfolds.

### 4.3.2 Summary of Local Context Findings

The recommended TDM program for the Venice Coastal Zone contains strategies that are specific to the needs and travel behaviors of people who travel to and from Venice. Key findings include:

- 26% of trips to the Venice Coastal Zone come from outside the region, and are likely made by tourists, whether for business or recreation
- 74% of trips to the Venice Coastal Zone come from within the region, and are likely made by residents, employees, and local visitors
- More than 40% of regional trips that end in the Venice Coastal Zone are four miles or less in length
- Nearly a third of regional trips that end in the Venice Coastal Zone are three miles or less in length
- Only 18% of weekday trips and 7% of weekend trips are work trips
- Residents in the Venice Coastal Zone are more likely to walk or bike to work, compared to the City of Los Angeles as a whole, more likely to work from home, and less likely to take transit or carpool to work
- The Venice Coastal Zone has a lower share of households that earn less than $75,000 per year, compared to the City of Los Angeles as a whole, and a higher share of households that earn more than $75,000
- The Venice Coastal Zone has a smaller-than-expected share of zero-vehicle households, compared to the City of Los Angeles as a whole, but a larger-than-expected share of one-vehicle households
- Micromobility appears to have initial popularity in the Venice Coastal Zone and, depending on the City's ongoing approach to refining the scooter program, may be a long-term viable mode option

### 4.3.3 Recommended TDM Program

Based on the findings of this report, the TDM strategies herein support the following policy objectives:

- Incentivize trips that are price insensitive and infrequent, such as those made by tourists or business travelers
- Address non-commute trips
- Encourage active modes like walking, biking, or scootering—particularly modes that are convenient for short point-to-point trips
- Introduce new transit service that better serves local Venice destinations
- Rebalance time savings to favor non-SOV modes
- Provide convenient, reliable vehicle access to allow households to forgo car ownership.

Across the Venice Coastal Zone, this report recommends the following eight TDM strategies:

1. Transportation Network Improvements for Pedestrians and Bicyclists
2. Bikeshare System
3. Increased Regional Transit Service
4. Expanded Local Circulator/Shuttle Service
5. Network of Mobility Hubs
6. Coordinated Wayfinding and Signage
7. Carshare Coordination
8. Curb Management System

Each of these strategies are summarized in Table 32 and discussed in greater detail below.

### Table 32: TDM Strategies

| TDM # | Strategy | Description | Cost | Effect. | Lead Agency and Supporting Agencies |
|---|---|---|---|---|---|
| TDM-S1 | Transportation Network Improvements for Bicyclists and Pedestrians | Implement pedestrian and bicyclist infrastructure improvements identified in the *Mobility Plan 2035* and Vision Zero Action Plan. | $$$ | ✔ ✔ | **LADOT**, BOE, DCP |
| TDM- S2 | Bikeshare System | Expand and enable existing bikeshare and encourage further fleet diversification to accommodate all trip types. | $$ | ✔ | **METRO**, LADOT, DCP, BOE |
| TDM-S3 | Increased Regional Transit Service | Increase transit service south and east of the Venice Coastal Zone and reduce headways to ten minutes or less. | $-$$$ | ✔ ✔ | **METRO**, LADOT, DCP |
| TDM- S4 | Expanded Local Circulator/Shuttle Service | Expand Circuit Ride and merge service areas and/or extend LADOT's LAnow pilot to serve the entire Venice Coastal Zone. | $$ | ✔ ✔ | **LADOT**, DCP |
| TDM-S5 | Network of Mobility Hubs | Locate mobility hubs every three to four blocks to allow people to connect between modes. | $-$$ | ✔ - ✔ ✔ | **DCP**, LADOT |
| TDM- S6 | Coordinated Wayfinding and Signage | Create comprehensive guidance for pedestrians, bicyclists, transit, and vehicles to navigate to various destinations. | $ | ✔ | **LADOT**, METRO, BSS, DCP |
| TDM-S7 | Carshare Coordination | Designate and improve at least one parking space per block for carshare. | $ | ✔ | **LADOT**, DCP, B&H |
| TDM-S8 | Curb Management System | Create additional passenger loading zones for use by Transportation Network Companies and microtransit. | $ | ✔ | **LADOT** |

Legend: DCP (Department of City Planning), BOE (Bureau of Engineering), LADOT (Department of Transportation), B&H (Los Angeles County Department of Beaches and Harbor), BSS (Bureau of Street Services), METRO (Los Angeles County Metropolitan Transportation Authority)

### TDM-S1. Transportation Network Improvements for Pedestrians and Bicyclists

$$$ ✔✔

The Venice Coastal Zone experiences substantial walking and biking activity. Those who choose to walk and bike do so using streets that, for the most part, do not prioritize their presence and movement. Some places in the Venice Coastal Zone, such as the walking streets and the bike path, are notable exceptions. In order to encourage more people to choose to ride a bicycle or walk longer distances, the built environment should be designed to prioritize the safety of people on bicycles or people on foot, over the efficient and fast movement of vehicles. Many infrastructure improvements have been identified in the *Mobility Plan 2035*, and additional safety needs have been identified in the Vision Zero Action Plan. Building out supportive infrastructure for these active modes will enable other TDM strategies—such as bikeshare, mobility hubs, and wayfinding—to be even more effective at shifting demand away from single-occupancy vehicles. These types of improvements can vary substantially based on the type of treatment, type of materials used, and whether signal upgrades are included as part of the project. Some improvements can cost $500,000 per mile, depending on these variables. Intersection improvements cost approximately $450,000 per intersection when new signals are required.

### TDM-S2. Bikeshare System

$$ ✔

Expanding Metro Bikeshare and continuing to enable third party bikeshare vendors to operate in the Venice Coastal Zone can help encourage active transportation throughout the area. In order to encourage bikeshare usage, frequent docking stations, or branded parking stations for dockless bikes, can be located throughout the Venice Coastal Zone, approximately one per block. In addition, electric bicycles and other creative bicycle options (such as electric and regular cargo bikes and tricycles) should be included as part of the fleet and encouraged from third-party vendors who operate in the area. This makes bikeshare most accessible to the largest number of people, for the broadest set of trip purposes including those that require the traveler to carry bags, children, and other items. Annual memberships for those who reside in the Venice Coastal Zone can be subsidized or provided free of charge, which would increase the effectiveness of this strategy. Providing a 50% subsidy for annual memberships for 10,000 households, at the current average cost of an annual bikeshare membership, would cost $600,000 per year. Many operators do not have annual memberships and instead only charge by the ride. The capital cost of installing 20 mixed standard/electric bikeshare stations is estimated to be $2 million, based on cost estimates provided by Metro for similar infrastructure. Annual maintenance for 20 mixed standard/electric stations is estimated to be approximately $600,000 per year, based on cost estimates provided by Metro. Partnering with bikeshare vendors could reduce the cost of fleet maintenance and capital expenditures.

### TDM-S3. Increased Regional Transit Service

$ - $$$ ✔✔

Existing public transit services can be improved to provide better service that fits the trip-making habits of people traveling to the Venice Coastal Zone. Given the regional distribution of trips to the Venice Coastal Zone, increased transit service to the east and south would enable people traveling from those areas to do so without a vehicle. Where possible, headways should be reduced to 10 minutes or less so that riders can trust a bus will arrive within a reasonable wait time, without having to check a schedule, and transit service time should extend into the late evening and on weekends, with as much frequency as the weekday peak period services, if not greater frequency. The cost to expand transit service in this manner would need to be determined through regional coordination with Metro, LADOT Commuter Express, Santa Monica Big Blue Bus, and Culver CityBus. Because such regional coordination is already underway through Metro's NextGen Bus Study and other efforts, it is difficult to determine the cost that would be required to expand service coverage or frequency. Effectiveness of expanded service also depends on the extent to which service is filling gaps in coverage.

### TDM-S4. Expanded Local Circulator/Shuttle Service

$$ ✔✔

Currently, in Venice, small on-demand shuttle services such as Circuit Ride provide access to a limited number of local destinations. Circuit Ride served an average of almost 6,500 riders per month in its Venice service area during the summer and almost 3,200 riders per month during the fall in 2019. LADOT's LA*now* on-demand pilot also provides service in most of the Venice Coastal Zone. A highly visible, high frequency fixed-route circulator or expansion of these on-demand local shuttles can serve destinations in Venice that are longer than comfortable walking distance, as well as connect to higher capacity regional transit systems like the Expo Line. It can also provide a frequent connection to parking lots, encouraging a "park once" approach to visiting Venice. Frequent circulator/shuttle service should be provided in the evening and on weekends, in particular, when regular transit service is less frequent. Strong branding can help increase ridership and visibility of the system. The West Hollywood PickUp Line and the Sunset Trip Entertainment Shuttle are good examples of well-utilized local shuttles that circulate through West Hollywood at specific times, serving specific uses and types of trips. In 2018, West Hollywood allocated $525,000 to operate the Sunset Trip Entertainment Shuttle for the 2018-2019 fiscal year.

### TDM-S5. Network of Mobility Hubs

$ - $$ ✔ - ✔✔

Mobility Hubs are spaces that allow people to connect between modes, find out more information about transportation services in an area, and make small repairs to their bicycle. A high density of networked Mobility Hubs throughout the Venice Coastal Zone can help provide visibility for modes other than single-occupancy vehicles, and can be a place to site bikeshare, carshare, and electric vehicle charging. Mobility Hubs should be located every three to four blocks and should include co-located bikeshare, carshare,

micromobility charging stations, micromobility parking, bicycle repair facilities, Wi-Fi, transit line stops, an interactive kiosk that allows someone to reload their TAP card and other accounts with additional funds, and an interactive map showing destinations within a five-minute and ten-minute walk. Building out a Mobility Hub varies in cost, but based on preliminary amounts from pilot projects, each hub may cost a minimum of $100,000. The City of Los Angeles has sought to implement 13 Mobility Hubs and 85 satellite hubs for a 5-year period with a grant-funded budget of $10 million. Cost-sharing agreements can also be included in conditions of approval for new development and may allow Mobility Hubs to be located on private land with guaranteed public access. Mobility Hubs have the potential to make other TDM strategies more effective.

### TDM-S6. Coordinated Wayfinding and Signage

$ ✔

Wayfinding is provided at various scales—some to guide vehicles that arrive in the Venice Coastal Zone, and others to guide people on foot or on bicycle as they navigate through the area. Wayfinding should also help guide people from their parking locations to their destination.

***Gateway Wayfinding Signage:*** Primary gateways into the Venice Coastal Zone are (from north to south and east to west) Pacific Avenue, Main Street, Lincoln Boulevard, Rose Avenue, Venice Boulevard, and Washington Boulevard. Wayfinding signage should be placed at these gateways with directions towards off-street public beach parking lots and other off-street lots and metered parking districts along mixed-use corridors such as Rose Avenue, Abbot Kinney Boulevard, and Washington Boulevard. Existing gateway signage in Venice is limited to Pacific Avenue and Venice Boulevard, where signs direct motorists to beach access parking. These signs are small and inconsistent in style with each other and with signs at the entrance to beach access parking lots.

***Roadway Wayfinding Signage:*** From the gateway locations, wayfinding signage should be provided to guide motorists to various locations, including the beach and mixed-use corridors. Wayfinding signage should be provided along Pacific Avenue, Main Street, Rose Avenue, Abbot Kinney Boulevard, Venice Boulevard, and Washington Boulevard to bridge the distance between the gateway roadways and areas of parking supply. The signage should be consistent in style and branding with publicly owned off-street lots and metered corridors. Existing roadway wayfinding signage in Venice is limited to Pacific Avenue and Venice Boulevard, where signs direct motorists from the gateways to beach access parking. These signs are small and inconsistent in style with each other and with signs at the entrance to beach access parking lots.

***Pedestrian Scale Wayfinding:*** Pedestrian scale wayfinding should be provided throughout the area, connecting key destinations and commercial areas with Mobility Hubs, bus stops, and public parking lots. Pedestrian scale wayfinding can take many forms, including, but not limited to, map-based signage at key locations, such as parking area pedestrian exits; signs; and other visual cues such as landscaping, lighting, and pedestrian path orientation. Such pedestrian scale wayfinding is

most important around LADOT Lot 701, which may serve both visitors to businesses along Abbot Kinney Boulevard and beachgoers.

The cost of area-wide wayfinding and informational signs is estimated to be approximately $500,000 to design, fabricate, and install signs. In addition, it may be appropriate to conduct a wayfinding study before the signs are designed, in order to ensure comprehensive coverage and intuitive placement of signage to maximize the impact.

### TDM-S7. Carshare Coordination

$ ✔

Coordination of area-wide carshare services can help provide an option for those who need to travel by vehicle but would prefer not to make it their primary mode choice. In cities like Vancouver, many carshare vendors exist to serve different needs: some vehicles can be rented by the day, while others can be rented by the hour. Some vendors are for-profit, while others are non-profit. Some vehicle fleets are fully electric, while others are comprised of vans, trucks, and other specialized vehicles that serve very specific needs. The cost and effectiveness estimates noted above assume designation of at least one parking space per block for carshare in both residential and commercial zones, providing enough supply to create a visible and viable system. It also assumes capital improvements to designate space on-street for carshare cars would be relatively minimal and would include the cost of paint and signage. For added effectiveness (at added cost) annual memberships for those who reside in the Venice Coastal Zone can be subsidized or provided free of charge. Providing a 50% subsidy for annual memberships for 10,000 households, at the current cost of an annual carshare membership, would cost $350,000 per year.

### TDM-S8. Curb Management System

$ ✔

A curb management system optimizes the use of curb space, providing greater access and mobility for a variety of users. Loading zones and red-curb zones have historically been used as tools for curb management; newer technologies that allow curbs to be digitally rendered, priced, and controlled offer a new set of tools. Curb space can be prioritized for high occupancy vehicles such as transit vehicles, shuttles, and high occupancy TNC vehicles through geofencing. An effective curb management system responds to changing curb demand through the day. Curb space can be free or metered to encourage or discourage certain modes, while providing a tool to control dockless bikeshare parking or micromobility parking. Space can be designated for deliveries during overnight periods, high occupancy during peak periods, and less efficient uses during off-peak periods. When this is well communicated, the pricing signals built into curb access (along with real-time parking pricing such as ExpressPark) can encourage higher occupancy vehicle use and discourage single occupancy vehicle use. The cost of implementing a coordinated curb management system would depend on the approach.

In the Venice Coastal Zone, developing a curb management system that provides time and space for passenger loading could increase safety in the travel lane and reduce the frequency of double parking

that was observed during field observations. Replacing some current on-street parking with passenger loading zones during periods of peak demand would have the benefit of providing TNC vehicles with designated places to pick up and drop off. Designating pick-up and drop-off zones, with proper signage and wayfinding, could help encourage beachgoers and other visitors to the Venice Coastal Zone to take TNCs rather than use private vehicles and help reduce the demand for parking in the area.

A study for Uber in San Francisco concluded that 50 to 60 feet of curb space are required for TNC passenger loading.[23] Potential pick-up and drop-off zones in Venice include the following:

- Rose Avenue between Main Street and Pacific Avenue
- Abbot Kinney Boulevard between Westminster Avenue and North Venice Boulevard
- North Venice Boulevard between Speedway and Pacific Avenue
- South Venice Boulevard between Speedway and Pacific Avenue
- Washington Boulevard between Pacific Avenue and Strongs Drive

Such pick-up and drop-off zones could also accommodate future micro-transit service, providing first-mile/last-mile connections to the Venice Coastal Zone from the nearby Santa Monica Expo Line Station. A review of LADOT's LA*now* microtransit pilot project shows that the single most popular pick-up and drop-off location for the service is in the Venice Coastal Zone.[24] Future analysis should include findings from the LA*now* pilot and a review of operations at existing loading zones to identify additional pick-up and drop-off zones.

### 4.3.4 TDM Implementation

At large, TDM strategies work by enhancing the use of existing transportation networks and operations. They can also inform new policies that create programs and infrastructure that did not previously exist. The TDMs presented in this report are recommendations and do not suggest approval or certification of any strategy. While many factors regarding how these strategies would be implemented are yet to be determined, it is clear that inter-agency coordination is necessary, in part because implementation of the TDM strategies is typically done throughout different points in the planning process. The Department of City Planning has an opportunity to incorporate some of these strategies into policies as part of the Community Plan update or the Local Coastal Program update. However, as TDM strategies vary in regard to scope and costs, different agencies are tasked to either lead or support implementation efforts. It is assumed that the lead organization charged with implementation would develop a budget, implementation strategy, and monitoring/evaluation approach to understand which strategies have the most substantial effect on shifting trips and reducing parking demand. The implementing organization would also have the latitude to adjust certain strategies that are less effective and invest in strategies that prove more effective. The actual steps undertaken by City agencies are contingent on adequate funding

[23] Fehr & Peers. *San Francisco Curb Study*. (2018). Uber Technologies.

[24] LADOT, as of June 20, 2019.

and support from other public agencies (METRO, LA County, etc.) and decision-makers (City Planning Commission, City Council, Coastal Commission, etc.).

## 4.4 Parking Requirements

The potential modifications to parking requirements in the Venice Coastal Zone seek to balance coastal access with the needs of the Venice community. Specifically, the parking requirements suggested in this report align with the goals and policies of the Venice Land Use Plan (LUP), such as the following:

- *Parking requirements should reflect the City's goals for increased mobility choices and reducing GHG. New development should provide adequate parking and avoid oversupply of parking. Available parking shall be managed efficiently, and the City shall facilitate investment and implementation of shared parking and mobility services. (POL 5.32)*

The modified parking requirements are consistent with the City's new Zoning Code. The new Zoning Code, which will be implemented through Community Plan updates, provides a set of zoning tools to meet the diverse needs of the City's neighborhoods. To this end, parking requirements throughout the City have been consolidated into five Parking Sets. Parking Set E has the highest parking requirements; the number of required spaces continues to decrease in Parking Sets D, C, and B until no amount of parking is required under Parking Set A.

### 4.4.1 Potential Updates to Venice Coastal Zone Parking Ratios

Based on the new Zoning Code and the comparison of relevant communities and trends towards reduced parking demand through access to mobility services, potential adjustments are provided for the Venice Coastal Zone parking requirements. The required automobile parking in Parking Set E proposed as part of the new Zoning Code is the most consistent with existing citywide parking requirements and closest to the current requirements in the Venice Coastal Zone. The ratios for Parking Set E would also align the Venice Coastal Zone's parking ratios with most of the other evaluated coastal communities in Southern California.

In order to justify significant changes to the requirements for residential and commercial uses—either increasing or decreasing them—the City could collect data through negotiated permission with dozens or hundreds of private property owners in the Venice Coastal Zone. Such an effort could inventory available parking on the private sites and then collect utilization data during one or more time periods. Such an effort was not included in this study, which focused instead on how parking requirements in the Venice Coastal Zone compare to other communities within the City of Los Angeles and other coastal cities in Southern California.

The potential updates to the Venice Coastal Zone parking requirements are provided in Table 33 and Table 34 along with the existing parking requirements. Compared to existing requirements, the proposed ratios maintain a similar level of required parking for residential uses and commercial uses, while decreasing the required parking for office use, which is less likely to conflict with peak coastal access and most likely to benefit from TDM implementation.

It is important to note that the potential updates proposed in this study utilizes Parking Set E as a starting point and may deviate from those requirements to address issues unique to the Venice Coastal Zone. The recommended ratios are based on a comprehensive review of the existing parking inventory, the findings presented in this study, as well as Parking Set E of the new Zoning Code. All references to the new Zoning Code and Parking Set E reflect the most current draft (June 2021) of the new Zoning Code, which may be subject to future changes.

**Table 33: Summary of Potential Updates to Parking Ratios for Common Types of Development**

| Land Use | Changes to Parking Ratios |
|---|---|
| Single-family residence | No change |
| Multi-family residence | Reduced from 2 spaces to 1-2 spaces per dwelling unit, depending on # of habitable rooms. Eliminated 0.25 per unit guest parking. |
| General Office | Reduced from 4 to 2 spaces per 1,000 SF |
| General Retail | Reduced from 4.4 to 4 spaces per 1,000 SF |
| Manufacturing and Industrial | Eliminated minimum 3 spaces and reduced ratio from 2.85 to 2 spaces per 1,000 SF for first 10,000 SF, plus 0.2 per 1,000 SF after |
| Restaurant | Ratio to be based on Floor Area (10/1,000 SF) instead of Service Floor Area (20/1,000 SFA). Reduced parking requirements for most restaurants. |

Source: Fehr & Peers, 2019 and new Zoning Code Parking Set E.

### *i Residential Uses*

The parking requirements for residential uses account for the location and lot size for single-family units and the number of habitable rooms for multi-family units. While residential parking in the new Zoning Code is based on the number of habitable rooms, the suggested parking requirements for single-family dwellings proposes no change to the existing requirements. The Venice Coastal Zone should continue to require a higher number of parking spaces (three spaces instead of two) if the single-family unit is located in the Silver Strand or Venice Canals and if the lot width is greater than 40 feet. For multi-family units, the suggested number of required parking spaces ranges from one space (for units with one to two habitable rooms) to two spaces (for units with four or more habitable rooms) to better account for the parking demand based on the size of the unit instead of the current uniform rate of two spaces per unit plus guest parking. To preserve coastal access, the location of all residential parking should continue to be onsite, with no provision to allow parking to be accommodated on-street. The parking required for accessory dwelling units (ADUs) is lower than the current requirement for artist-in-residence units (one space per ADU in comparison to two spaces per artist-in-residence). For ADUs within ½-mile of bus stops or within one block of carshare or a pick-up and drop-off location, California's ADU law (Government Code Section 65852.150) provides relief from parking requirements. Parking relief, as well as other state-sanctioned incentives, however, must work in harmony with the provisions of the Coastal Act. Because parking relief

policies applied in the Venice Coastal Zone can lead to cumulative adverse impacts on parking supply and shoreline access, this report suggests that ADUs provide parking at a rate of one space per dwelling unit.

The recommended parking rates include a variety of other residential land use types, such as joint living quarters, assisted living facilities, licensed community care, and substance abuse facilities.

**Table 34: Automobile Parking Requirements (Potential Updates and Existing)**

| Land Use Type | Potential Updates Venice Coastal Zone[25] | Existing Venice Coastal Zone (2004 Specific Plan) |
|---|---|---|
| ***Residential Uses*** | | |
| Single Family Dwelling, except as listed below: | 2/du | 2/du |
| Single Family Dwelling in Silver Strand | 3/du | 3/du |
| Single Family Dwelling in Venice Canals | 3/du | 3/du |
| Single Family Dwelling with lot width > 40 ft | 3/du | 3/du |
| Multi-family Dwelling, as listed below: | | |
| 1-2 Habitable Rooms | 1/du | 2/du + 0.25/du for guests |
| 3 Habitable Rooms | 1.5/du | 2/du + 0.25/du for guests |
| 4+ Habitable Rooms | 2/du | 2/du + 0.25/du for guests |
| Accessory Dwelling Unit* | 1/du | --- |
| Hotel***, as listed below: | | |
| First 30 rooms | 1/guest room | 2 spaces plus 1/guest room |
| Next 30 rooms | 0.5/guest room | 0.5/guest room |
| Remaining rooms | 0.25/guest room | 0.33/guest room |
| Mobile home Park | See Title 25 of the CA Administrative Code | 2 spaces per mobile home space |
| Homeless Shelter | 2/shelter | --- |
| ***Public and Institutional Uses*** | | |
| Civic | 2/1,000 SF | --- |
| Counseling and Referral Facility | 2/1,000 SF | --- |
| House of Worship | 20/1,000 SF or 0.2/fixed seat | --- |
| School, except as listed below: | 2/1,000 SF | 2/1,000 SF |
| Pre-school/Childcare | 1/1,000 SF | 2/1,000 SF |
| Post-secondary | 20/1,000 SF | 40/1,000 SF |

[25] The recommended ratios are based on a comprehensive review of the existing parking inventory, the findings presented in this study, as well as Parking Set E of the new Zoning Code. All references to the new Zoning Code and Parking Set E reflect the most current draft (June 2021) of the new Zoning Code, which may be subject to future changes.

**Table 34: Automobile Parking Requirements (Potential Updates and Existing)**

| Land Use Type | Potential Updates Venice Coastal Zone[25] | Existing Venice Coastal Zone (2004 Specific Plan) |
|---|---|---|
| ***General Commercial Uses*** | | |
| Animal Sales and Service | 2/1,000 SF | 6.6/1,000 SF (1/150 SF) |
| Eating and Drinking Establishment including Rooftop Dining and Outdoor Dining, as listed below: | | |
| Bar | 10/1,000 SF | 20/1,000 SF of Service Floor Area |
| Counter Service | 4/1,000 SF | 20/1,000 SF of Service Floor Area |
| Restaurant | 5/1,000 SF | 20/1,000 SF of Service Floor Area |
| Drive-in and Window Service Restaurant providing Walk-up or Drive-up Window Service (No Seating or Service Floor Area) | --- | 1/50 SF<br>10 minimum |
| Entertainment Venue, including Theater or Auditorium | 25/1,000 SF | 48/1,000 SF +<br>0.5/fixed seat |
| Financial Services (Commercial Bank, Savings and Loan Office, other Financial Institutions, Public or Private Utility Office, Ticket Agency, and other similar Window Service Offices) | 2/1,000 SF | 4.4/1,000 SF<br>(1/225 SF) |
| Medical Facility, except as listed below: | 2/1,000 SF | 6.6/1,000 SF<br>(1/150 SF) |
| Office (General Office and other Business, Technical Service, Administrative or Professional Offices) | 2/1,000 SF | 4/1,000 SF |
| Personal Services (Including Cleaning and Laundry Agency or similar use) | 2/1,000 SF | 4/1,000 SF |
| Private Club (Dance Hall, Pool or Billiard Parlor, Roller or Ice Skating Rink, Exhibit Hall, and Assembly Hall without fixed seats, including Community Center, Private Club, Lodge Hall, and Union Headquarters) | 10/1,000 SF | 13.3/1,000 SF<br>(1/75 SF) |
| Recreation, Indoor, except as listed below: | 10/1,000 SF | 13.3/1,000 SF<br>(1/75 SF) |
| Retail (General Retail Store), except as listed below: | 4/1,000 SF | 4.4/1,000 SF<br>(1/225 SF) |
| Shopping Center | 1/200 SF within the center, or as otherwise required for each individual use within the center, whichever is greater | 1/200 SF within the center, or as otherwise required for each individual use within the center, whichever is greater |
| Food Store, Grocery Store, Supermarket | 4/1,000 SF | 4.4/1,000 SF<br>(1/225 SF) |

**Table 34: Automobile Parking Requirements (Potential Updates and Existing)**

| Land Use Type | Potential Updates Venice Coastal Zone[25] | Existing Venice Coastal Zone (2004 Specific Plan) |
|---|---|---|
| Open Air Vending, Swap Meet | 1.25 spaces per vending stall or sales space | 1.25 spaces per vending stall or sales space |
| Laundromat and Coin-Operated Cleaners | 6.6/1,000 SF (1/150 SF) | 6.6/1,000 SF (1/150 SF) |
| ***Heavy Commercial Uses*** | | |
| Motor Vehicle Services | 2/1,000 SF | --- |
| Motor Vehicle Sales and Rental | 2/1,000 SF | --- |
| ***Light Industrial Uses*** | | |
| Manufacturing and Industrial Establishment | 2/1,000 SF (for 1st 10,000 SF) + 0.2/1,000 SF after | 3 spaces + 1 space for each 350 SF |
| Storage (Indoor) | 2/1,000 SF (for 1st 10,000 SF) + 0.2/1,000 SF after | 3 spaces + 1 space for each 1,000 SF |

Notes:
* Any ADU within 1/2 mile of transit stop is exempt from parking requirements under state law.
**The number of existing parking spaces shall count as the number of parking spaces required for the site for up to 8 Joint Living and Work Quarters units.
*** In addition to the requirements outlined above, Hotels are required to provide 1 space for each 100 square feet of floor area used for consumption of food or beverages, or public recreation use, plus 1 space for each 5 fixed seats and for every 35 square feet of seating area where there are no fixed seats in meeting rooms or other places of assembly.
**** Beach Impact Zone (BIZ) parking requirements are not shown in this table. BIZ parking is only required in the Beach Impact Zone, as shown in Exhibit 17a and 17b of the Venice Land Use Plan. Commercial & industrial projects require an additional parking space for each 640 square feet of floor area of the ground floor, with a minimum of 2 spaces. Multi-family residential projects require an additional parking space for each 1,000 square feet of ground floor for projects with three units or more, with a minimum of 1 space.

### *ii Office Uses*

Reduced parking ratios for office uses can also be considered as summarized in the tables above. The potential update to the rate for office parking is 2 spaces per 1,000 SF, whereas the current rate is 4 spaces per 1,000 SF. The suggested update for office uses is consistent with Parking Set E of the new Zoning Code.

In addition to updating the parking ratio for office uses, the City could consider incentivizing offices to make their parking supply available to the public during non-business hours. Since office parking is generally utilized during the daytime on weekdays, making office parking available to other nearby uses that have parking demand in the evenings and on weekends could provide additional parking in Venice. The following potential policies incentivize office uses to make their parking supply available to the public:

- All office development is required to provide a minimum number of parking spaces for public parking use outside of core business hours.
- Businesses may choose to charge for parking at a going market rate or hire a private parking operator to manage the lot and set parking prices outside core business hours.
- If the landowner chooses to have the City manage their lot, the landowner waives revenue rights, but the City shall cover all operational costs, and indemnify the landowner of any damages or liabilities associated with public parking.

#### *iii Commercial and Restaurant Uses*

The parking ratio for general retail use (4 spaces per 1,000 SF) is slightly less than the existing requirement (1 space per 225 SF or 4.4 spaces per 1,000 SF). The most notable change for commercial uses is the reduction in parking required for eating and drinking establishments. Currently, 20 spaces per 1,000 SF of service floor area are required for all types of restaurants and bars.[26] The potential updates to the rates reduce the parking requirements to 10 spaces per 1,000 SF for most eating and drinking establishments with a reduced rate of 5 spaces per 1,000 square feet required for small restaurants (less than 1,000 SF) and 4 spaces per 1,000 square feet required for take-out (no seating) restaurants. The potential parking ratio updates for other commercial uses, such as medical facilities, recreational uses, and hotels, are similar to the existing requirements in the Venice Coastal Zone.

## 4.5 Parking Alternatives

This report recommends two alternatives to the existing in-lieu fee program to address the issues brought forth by the Coastal Commission. The first alternative to increase the fee to $36,500 per space addresses the concern that the current in-lieu fee ($18,000) is significantly less than the cost of providing a parking space. The fee increase is calculated using estimates of recent construction costs of public above ground parking structures. The second alternative proposed in this report is to create a new parking credits program to replace the existing in-lieu fee program. Parking credits function as a land use entitlement to allow new and expanding businesses to satisfy code-required parking using a pool of actual public or private spaces identified as surplus or underutilized inventory and then selling parking credits to utilize the pool of parking. In both scenarios, the City would propose an expenditure plan to improve the existing parking supply and minimize parking impacts from development.

### 4.5.1 Revised Parking In-lieu Fee Program

Based on findings in Section 3.5, the following are the recommendations for a revised Parking In-lieu Fee Program.

[26] Within the Venice Specific Plan area, 1 parking space is required for every 50 square feet of Service Floor Area. Service Floor Area is defined as all areas where the customer can be served, including indoor and outdoor dining area, bar, waiting room, and tavern. Restrooms are not counted as Service Floor Area.

Increasing the Venice Coastal Zone parking in-lieu fee from $18,000 to $36,500 would bring it in line with current construction costs for new parking structures. In turn, revenue from the in-lieu fee could be used to fund the recommendations described in this report, which include:

- Reducing the demand for parking through transportation demand management strategies
- Increasing the functional supply of parking through parking management strategies
- Constructing additional parking supply

Parking in-lieu fee programs face a number of implementation challenges. In other cities, the one-time, lump-sum amount has proven an obstacle to many businesses and restaurants. Those cities find their parking in-lieu fee programs going unused or else have chosen to replace their in-lieu fee programs with a parking credits program. In the Venice Coastal Zone, the program has only been used sparingly: fees were paid in lieu of 18 on-site parking spaces over the course of 10 years, for an annual average of two spaces. If the program continues at a similar rate, it will not generate enough revenue to justify a large construction project, even with an increase in the fee amount, and may not justify even smaller improvements that are recommended. Increasing the fee amount to reflect actual construction costs does not guarantee that the program will become more popular; it may also have the effect of making the program less feasible for businesses. For all of these reasons, it is recommended that the City consider replacing its parking in-lieu fee program with a parking credits program.

### 4.5.2 Parking Credits Program

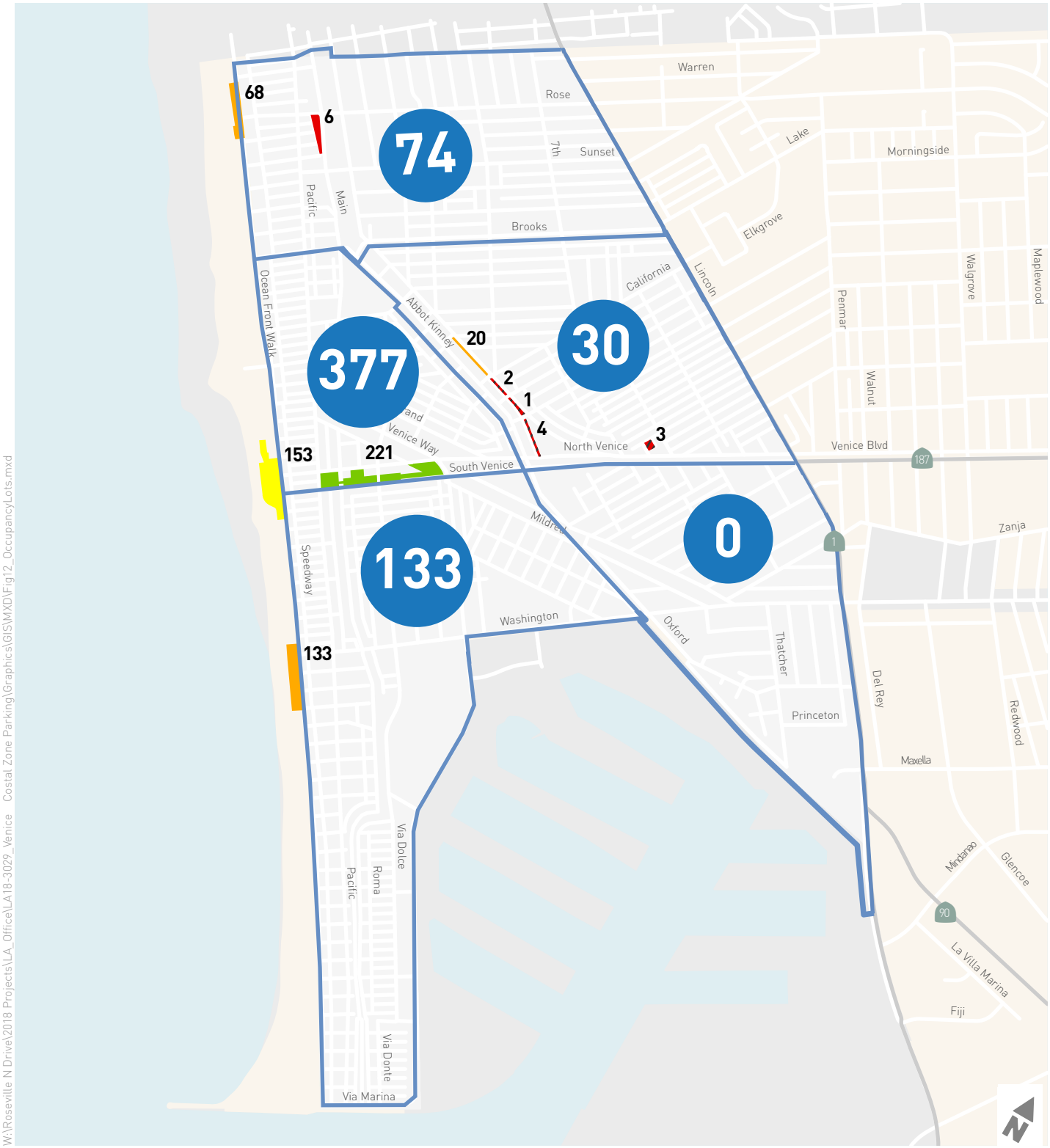
Parking credits are a land use entitlement that allow new and expanding businesses (or, potentially, residences) to satisfy code-required parking by identifying a pool of actual public or private spaces as surplus or underutilized inventory and then selling parking credits to utilize the pool of parking. The number of active credits is determined by regular occupancy surveys taken at parking facilities in designated districts. Active parking credits are then monitored, subtracting the number of parking credits sold from the number of credits available in each district. A parking credits program, if priced right, could address one of the shortcomings of an existing in-lieu fee program by providing an option for businesses to pay a smaller one-time fee along with an annual fee. Figures 21 through 23 show the potential parking credits districts in the Venice Coastal Zone along with a range of available spaces.

#### Implementation of Parking Credits Program

The following section discusses issues and questions to consider when implementing a parking credits program. The recommendations stated in this report should serve as an example of how a parking credits program could be operated. The details of the parking credits program stated herein are meant to facilitate a discussion of important issues, and such details may be modified as needed. Since parking credit programs can take on many different forms, the specific provisions of the program should be thoroughly vetted by City staff and tailored to the needs of the Venice community.

The current in-lieu fee program is overseen by LADOT with support from City Planning staff. A parking credits program would operate under a similar framework. It is important to consider the following factors and questions when implementing a parking credits program in the Venice Coastal Zone:

- **Scope:** An effective parking credits program will have clear instructions on which projects quality for the parking credits program option. Will the program be available to certain types of development? Can it be used for residential, commercial, and mixed-use projects? What are the boundaries of the program?
- **Coastal Access:** Will access to the coast and beach areas be reduced or limited because of the program? What are the impacts to traffic and congestion? Will there be a cumulative impact on parking supply near the coast? Because most projects in the Venice Coastal Zone require approval from the Coastal Commission, compliance with the Coastal Act is required. One of the main tenets of the Coastal Act is preserving and enhancing coastal access. Projects that violate the Coastal Act may be appealed by the Coastal Commission, so it is important that a parking credits program be cognizant of its short- and long-term impacts to coastal access.
- **Program Maintenance:** How many parking credits will be available for purchase and will that number change over time? Since the parking credits to be sold depend on parking availability, deciding on the number of credits is a critical part of implementation. To ensure that the parking credits in the pool reflect the current parking supply, the number of available credits in the program should be re-evaluated each year.
- **Operational Costs:** Compared to the current in-lieu fee, a parking credits program will likely require additional staff time to inventory parking supply and manage the funds collected. Drones and other technologies can be used to collect parking data and reduce staffing needs. Before any program is implemented, its fixed and variable costs should be analyzed. High operational expenses coupled with poor results may indicate that the program is ineffective.
- **Enforcement:** What are the penalties for a business owner who enrolls in the parking credits program but misses a payment? Guidelines for how the program will be enforced is necessary for the program's success.
- **Equity:** What are the positive and negative impacts of the program, and how are these impacts allocated? Does the program have an adverse disparate impact on a group of people based on their race, color, religion, sex, age, disability, sexual orientation, creed, ancestry, medical condition, or natural origin? If disparate impacts are discovered in the future, is there a process for addressing those concerns?

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

Potential Parking Credits Districts

# Available Parking Credits

**Available Spaces in Off-Street Public Parking Non-Summer Weekday: 12pm-2pm**

HIGH

**614**

**Spaces Available**

Figure 21

Potential Parking Credits in the Venice Coastal Zone

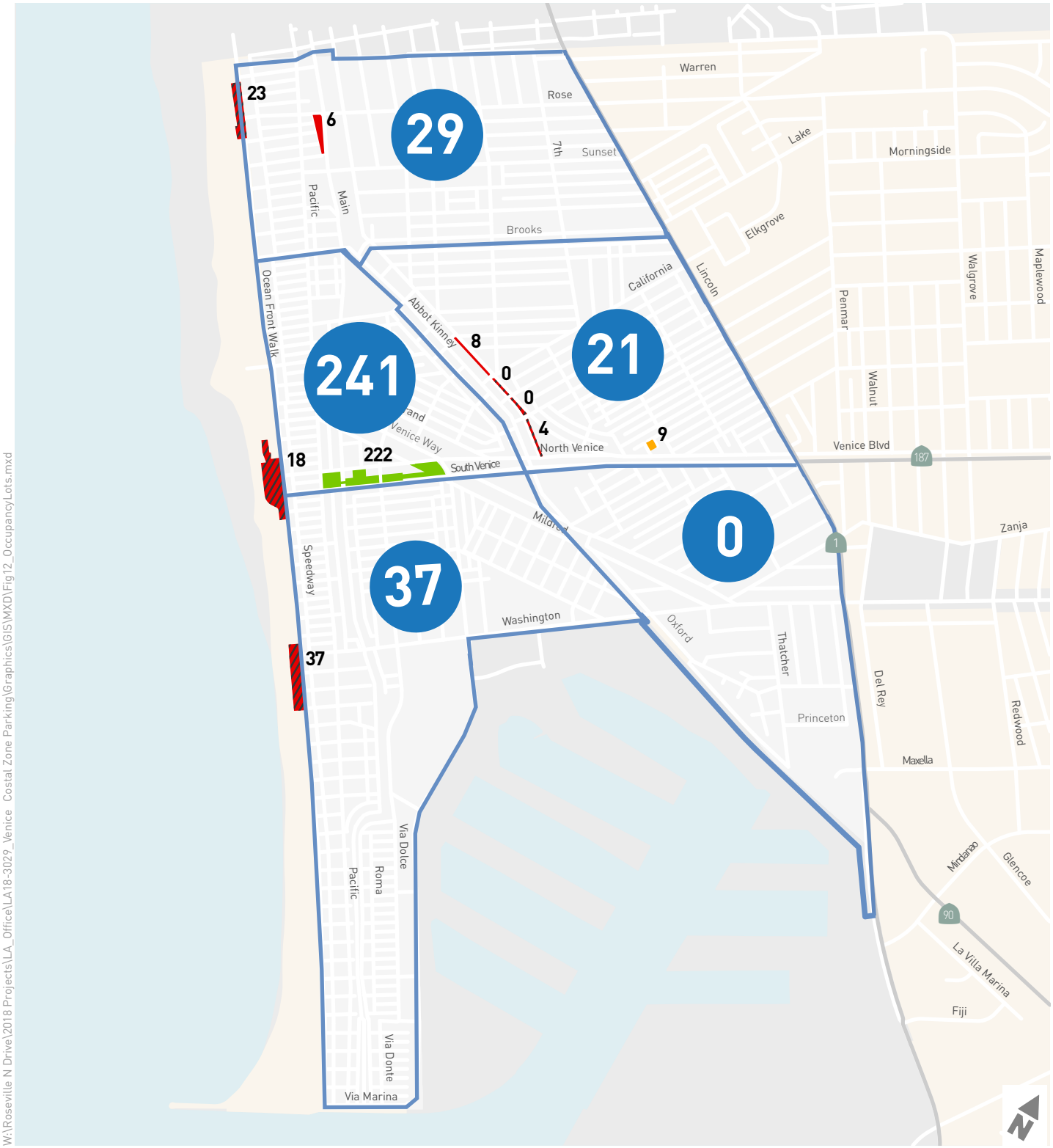


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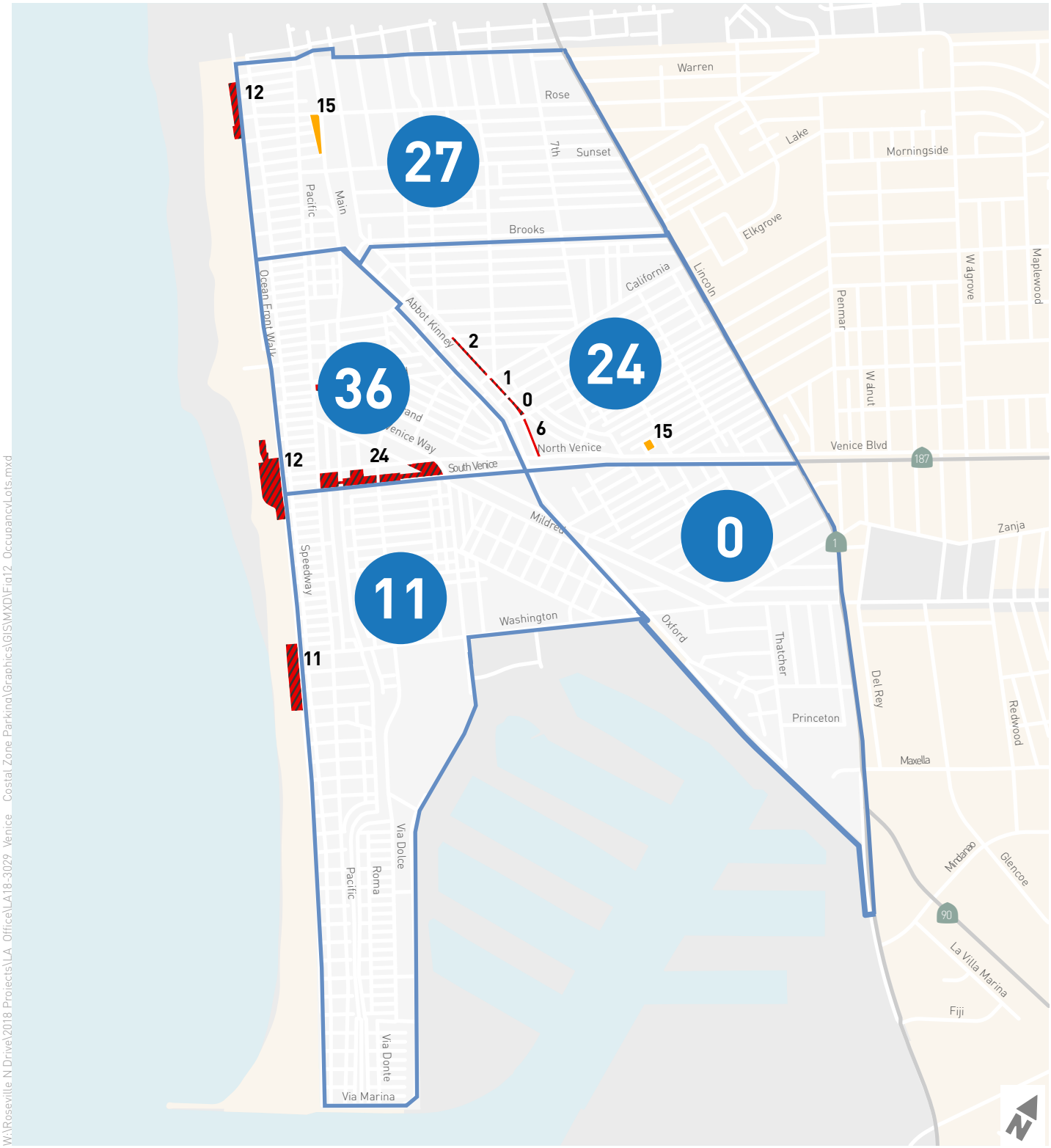
Figure 22
Potential Parking Credits in the Venice Coastal Zone

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Percent Occupancy

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%

Potential Parking Credits Districts

\# Available Parking Credits

**Available Spaces in Off-Street Public Parking Summer Weekend: 12pm-2pm**

LOW

**98**

**Spaces Available**

Figure 23

Potential Parking Credits in the Venice Coastal Zone

### Purpose

The purpose of the Venice Coastal Zone parking credit program is to allow business owners and developers to meet their minimum parking requirements by paying a fee, which is based on the availability of nearby spaces in publicly owned off-street lots that are underutilized. Like the in-lieu fee program, the parking credits program could be applied to both commercial and multi-family residential uses. If residential uses are included, the City can consider including underutilized on-street parking spaces in the pool of available credits.

### Eligibility

Parking credits can be made available to commercial uses for up to 100% of their required parking, provided that no one project may purchase more than 25% of the total credit pool. Purchase of parking credits does not grant the purchaser any special right to or exclusive use of individual parking spaces; the underutilized public lots from which credits are drawn will remain open for public use on a first-come, first-served basis, according to hours of operation. If residential uses are included in the parking credits program, multi-family residential units could also utilize parking credits for up to 100% of their required parking, provided that no one project may purchase more than 25% of the total credit pool. For residential uses, the City can consider including underutilized on-street parking spaces in the pool of available credits. All fees are paid into the Venice Coastal Zone Parking Impact Trust Fund.

### Biennial Review

The City can determine the number of parking spaces to include in the pool for the parking credits program. Based on parking supply and demand data for existing conditions, the City could set the initial pool of parking credits for commercial uses at 98, representing the number of spaces that go unused during peak periods on the busiest summer weekend days in publicly owned off-street lots within the Venice Coastal Zone as summarized in Figure 22. If residential uses are included in the parking credits program, the City may consider setting the initial pool of parking credits for residential uses at 2,227, representing the number of on-street spaces that go unused during peak periods on the busiest summer weekend days.

The City could then re-evaluate parking utilization in public lots (and on-street) every two years and adjust the pool of available parking credits accordingly. Such a re-evaluation would involve a simple parking occupancy count during the time period used to set the pool of available credits. The number of unused spaces then determines the pool of credits moving forward. In this way, the program responds on an annual basis to changes in the demand for parking. The City may also adjust the pool of parking credits to reflect changes in parking supply. For example, if the City installs stacked parking in the publicly owned beach lots, it may increase the pool of available parking credits accordingly.

### Amount and Indexing

The parking credit fee should generally be based on the value of a parking space in the Venice area. The initial parking credit fee could be set at $1,800 per space per year. This amount reflects the median annual revenue for single-space meters in the Venice Coastal Zone, which is $1,747, as shown in Table 5. Annual meter revenue indicates the value of a parking space in the study area. This amount represents 10% of the current in-lieu fee, which has been set at $18,000 per space since the program's inception in 2004. Assuming the average business spends 10 years in a given location, setting the parking credit fee at 10% of the in-lieu fee will offer consistency in programming and cost to businesses. Another measure of the value of a parking space is the amount that people are currently paying to lease parking spaces, which is about $2,500 per year, or about 33% more than the proposed parking credit fee.[27]

The parking credit fee should be increased (or decreased) annually according to the most recent Construction Cost Index for the Los Angeles region, or equivalent index, as determined by LADOT, to be consistent with the annual adjustment made to the transportation impact fees in the area. Indexing the parking credit fee to construction costs or a similar measure of inflation will help ensure it remains reasonably reflective of the cost of implementing parking management strategies and constructing new parking. In this way, indexing the fee to construction costs or another measure of inflation will also address one of the shortcomings of the current in-lieu fee program; namely, that the cost of providing new parking exceeds the revenue generated by the fee.

Table 35 provides an estimate of parking credit program revenue over 10 years, assuming a 3% annual increase. If all 98 credits are sold each year, the program would generate over $2 million in 10 years. Table 35 also shows the running balance of the account, including a starting balance of $694,351 from the current in-lieu fee program.

[27] Leased parking costs include four sites in the study area surveyed by phone and internet research conducted by Fehr & Peers in September 2019.

**Table 35: Venice Coastal Zone Parking Trust Fund, 10-Year Estimate**

| Year | Fee | Revenue per Year | Balance |
|---|---|---|---|
| 0 | | | $694,351 |
| 1 | $1,800 | $176,400 | $870,751 |
| 2 | $1,854.00 | $181,692 | $1,052,443 |
| 3 | $1,909.62 | $187,143 | $1,239,586 |
| 4 | $1,966.91 | $192,757 | $1,432,343 |
| 5 | $2,025.92 | $198,540 | $1,630,882 |
| 6 | $2,086.69 | $204,496 | $1,835,378 |
| 7 | $2,149.29 | $210,631 | $2,046,009 |
| 8 | $2,213.77 | $216,950 | $2,262,959 |
| 9 | $2,280.19 | $223,458 | $2,486,417 |
| 10 | $2,348.59 | $230,162 | $2,716,579 |
| Total | | $2,022,228 | |

Notes: Assumes 98 credits sold and fee increase of 3% per year.
Source: Fehr & Peers, 2021.

### Expenditures

Revenue from the parking credits program should be used to fund the parking management and transportation demand management strategies described in Chapter 4.2 and 4.3, respectively. Table 36 summarizes these strategies, which are designed to increase the functional supply of parking in the Venice Coastal Zone, manage existing parking supplies more efficiently, and improve options for alternatives to driving and parking in the area. These strategies are designed to serve residents, employees, visitors, and tourists in the Venice Coastal Zone.

**Table 36: Venice Coastal Zone Parking Trust Fund Potential Expenditures**

| Strategy | Detailed Description |
|---|---|
| Pricing and Payment Strategies in Public Off-Street Lots | Install meters or pay stations in LADOT Lots 616 and 617 |
| | Automate beach lots and LADOT Lots 701 and 731 with pay stations or parking access and revenue controls |
| Valet Parking in Beach Lots | Re-stripe portions of each lot for stacking by valet attendants |
| | Contract with a valet service to operate the valet parking |
| Angled On-Street Parking | Convert parallel to angled on-street parking on Grand Boulevard between Windward Circle and Venice Boulevard |
| Increase Regional Transit Service | Partner with transit agencies to reduce headways to 10 minutes or less and extend service into the late evening and on weekends |
| Local Circulator/Shuttle Service | Partner with LADOT to extend LA*now* pilot and/or with Circuit Ride or other organizations to provide local circulator/shuttle service, including night and weekend service. |
| Bikeshare System | Expand programs to offer docking stations or branded parking stations on every block |
| | Subsidize annual memberships for Venice Coastal Zone residents |
| Network of Mobility Hubs | Build a high density network of Mobility Hubs |
| Coordinated Wayfinding and Signage | Implement area-wide wayfinding and informational signs |
| Carshare System | Partner with vendors to provide at least one parking space per block |
| | Subsidize annual memberships for Venice Coastal Zone residents |
| Curb Management System | Implement LA Express or another curb management system to optimize curb use |
| | Contract with a valet service to provide park once opportunities, using the beach lots and LADOT Lots 701 and 731 for coordinated valet |
| Transportation Network Improvements for Bicyclists and Pedestrians | Upgrade existing bike lanes to protected bike lanes |
| | Upgrade existing sharrowed bike routes to bike lanes |
| | Improve pedestrian facilities in Pedestrian Enhanced Districts |

Source: Fehr & Peers, 2019.

The benefit of a parking credits program is that the cost to businesses can be paid monthly instead of a one-time, lump-sum amount under an in-lieu fee program. Consequently, some cities that have had parking in-lieu fee programs going unused have chosen to replace their in-lieu fee programs with a parking credits program. However, parking credits programs can face challenges as well. The largest challenge is identifying the resources required to monitor and maintain the program. The City would need to identify the parking credit pool annually and identify the expenditures to match the incoming parking credit revenue. The oversight of parking availability, incoming revenue, and expenditures would need to occur on an on-going basis for the life of the parking credits program.

### 4.5.3 Case Studies: Parking Credits Programs

The cities of West Hollywood and Pasadena both have parking credits programs available for businesses in designated districts. The following sections describe those programs and how they might be relevant models for a parking credits program in the Venice Coastal Zone.

#### West Hollywood Parking Credits Program

West Hollywood switched their in-lieu fee program to a parking credits program in March 2012 after determining that many businesses, especially restaurants, were unable to pay the lump sum fee. The parking credits program allows City staff to actively manage commercial parking supply based on demand. The City of West Hollywood monitors the number of on-street metered spaces that are underutilized, determines a number of available parking credits based on that finding of surplus inventory, and then sells parking credits to businesses under 10,000 square feet that need to meet off-site parking requirements.

West Hollywood currently has two parking credits districts. District 1 covers the core area of businesses and parking facilities that are centralized between Santa Monica Boulevard, Melrose Avenue, San Vicente Boulevard, and Robertson Boulevard. Commercial properties immediately adjacent to the core area may be eligible for parking credits with the condition that they operate with a contracted valet service. District 2 covers the core area of businesses and parking facilities that are centralized along Santa Monica Boulevard between La Cienega Boulevard and Crescent Heights Boulevard.

The price per credit in 2019 was $433.51 for the year, with a one-time application fee of $650. By comparison, the parking in-lieu fee in 2012, before it was replaced with the parking credits program, was $20,000 per space. In the time that it existed, the in-lieu fee generated only $200,000 to $300,000 for the City of West Hollywood, accounting for 10 to 15 parking spaces. In September 2019, 1,007 of 1,357 available credits for the year were sold, generating an annual revenue of more than $436,000. The parking credits program generated twice the revenue in one year that the in-lieu fee program generated over the course of several years. Businesses are more likely to use the program because it does not require a substantial up-front cost, and its increased popularity means that it generates more revenue for the city of West Hollywood.

The annual parking credit fee is adjusted every year based on the Consumer Price Index (CPI) to account for inflation. The fees are deposited into the Parking Improvement Fund with other fees and are used to cover signage, staff costs, consultant fees, new parking construction, and maintenance of existing parking. Once per year, the City of West Hollywood hires a consultant to re-assess parking occupancy, and based on the new data, the credit pool is adjusted accordingly. In recent years, staff report that they have continuously increased the pool of available credits due to declining demand for on-street parking. Staff speculate that the decline in parking demand is due to the increasing popularity of TNCs like Uber and Lyft.

### Pasadena Parking Credit Program

Pasadena operates a parking credit program in two districts: Old Pasadena and South Lake Avenue. The program's goal is to give businesses in historic buildings a way to meet their parking requirements. The program is not intended to generate significant revenue to cover the costs of constructing parking. In Old Pasadena, businesses that require a change of use in historic buildings have difficulty meeting the parking requirements in the zoning code. The City of Pasadena created the credit program to allow such businesses to meet their minimum parking requirements using its existing parking garages. In the South Lake Avenue district, the program draws on underutilized on-street metered parking spaces. Although the property owners buy the credits needed and are under contract, they are not guaranteed a parking space and are still required to pay a monthly fee or purchase a transient parking pass to access existing garages or pay regular meter rates. In 2019 the fee was $168.10 per space, which is adjusted annually in July based on a CPI factor adopted by the Finance Department. There is also an application fee of $804.

## 4.6 Summary of Recommendations

The following summarizes key recommendations and outlines next steps for implementation.

### 4.6.1 Parking Management Strategies

- Pricing and payment strategies will help manage parking supplies more efficiently, incentivizing longer-term parkers to use off-street lots and freeing up on-street spaces for those that have less time and/or want to pay more to park closer to their destination. Optimizing parking utilization across on-street and off-street supplies will also help make parking easier to find and more compatible with pedestrians, bicyclists, and other active modes. For example, by eliminating the lottery-level chance of finding on-street parking near the beach and replacing it with predictable parking located on-street and off-street, drivers would be less likely to circulate the area searching for parking.
    - Implement demand-based pricing through Express Park meters at existing metered parking and on all street segments where adjacent land uses are not residential within the Venice Coastal Zone.
    - In the future, consider installing meters on all street segments in the Beach Impact Zone, with provision for residents to register their vehicles and obtain permits to park without paying for meters, similar to the system that currently exists in the city of Hermosa Beach.
    - Increase parking options in beach lots located off Rose Avenue, Venice Boulevard, and Washington Boulevard with short-term parking options.
- Time limits can also help incentivize users to park in particular facilities, depending on the purpose of their trip. On-street parking, because it is closest to various destinations, should have shorter time limits to serve those willing to pay for the convenience and time savings of parking as close as possible to their destination. Off-street lots should have more generous time limits to encourage their use for longer periods of time and those looking to save money by walking to their final destination.

    - Where on-street parking is metered, limit parking to two hours, except on segments adjacent to schools during school pick-up and drop-off times.
    - On unmetered street segments in residential areas, limit parking to two hours with exemptions for residential permit holders.
    - Increase the two-hour parking limit in LADOT Lot 740 to four hours.

- Valet parking is more efficient than self-parking, because valet attendants can stack parked vehicles and use less space.

    - Reserving portions of the beach lots for valet parking on weekends and during the summer months would increase the functional supply of parking.
    - Providing short-term parking options in the beach lots by means of valet attendants could help alleviate demand for on-street parking from beachgoers.

- Implement Preferential Parking District(s) to limit intrusion of non-residential and commuter parking in residential neighborhoods and to improve the success of other parking management and transportation demand management strategies.
- Analysis of on-street parking duration showed that up to 50% of vehicles parked in time-restricted spaces violated posted time limits. Greater enforcement of such time limits can help manage the supply of parking more efficiently.
- Converting parallel on-street parking to back-in, angled parking could create 87 new parking spaces on Grand Boulevard between Windward Circle and Venice Boulevard.
- In the Venice Coastal Zone, the large supply of publicly owned off-street parking lots offers an opportunity to provide Park Once Districts using coordinated valet, which has the benefit of providing convenience to motorists while also utilizing existing parking supply more efficiently.
- The Venice Coastal Zone is an ideal setting for a Parking Benefits District, in which a portion of the revenue from parking meters and other parking fees are kept within the district and used to fund neighborhood improvements, such as street sweeping, tree planting and trimming, sidewalk and street repair, street lighting, signage and signalization.

### 4.6.2 Transportation Demand Management Strategies

- Provide coordinated wayfinding and signage throughout the Venice Coastal Zone for pedestrians, bicyclists, and drivers.
- Build a carshare system by designating at least one parking space per block for carshare to offer alternatives to vehicle ownership.
- Develop a curb management system to encourage higher occupancy vehicle use and discourage single-occupancy vehicle use. Passenger loading zones can encourage visitors to use modes other than driving and parking in the area.
- A high density of networked Mobility Hubs, located every three to four blocks, should include co-located bikeshare, carshare, micromobility charging stations, micromobility parking, bicycle repair facilities, Wi-Fi, transit line stops, an interactive kiosk that allows someone to reload their TAP card and other accounts with additional funds, and an interactive map showing destinations within a five-minute and ten-minute walk.
- Frequent local circulator/shuttle service should be provided in the evening and on weekends, in particular, when regular transit service is less frequent. Strong branding can help increase ridership and visibility of the system.
- Given the regional distribution of trips to the Venice Coastal Zone, increased regional transit service to the east and south would enable people traveling from those areas to do so without a vehicle. Where possible, headways should be reduced to 10 minutes or less, and transit service time should extend into the late evening and on weekends, with as much frequency as the weekday peak period services, if not greater frequency.
- Expanding Metro Bikeshare and continuing to enable third party bikeshare vendors to site in the Venice Coastal Zone, creating a bikeshare system with stations every three to four blocks, can help encourage active transportation throughout the area.
- Building out supportive and networked infrastructure for pedestrians and bicyclists will enable other TDM strategies, such as bikeshare, to be even more effective at shifting demand away from single-occupancy vehicles.

### 4.6.3 Parking Requirements

- Compared to existing requirements in the Venice Coastal Zone, the potential updates to the parking ratios maintain a similar level of required parking for residential uses and commercial uses, while decreasing the required parking for office use, which is less likely to conflict with peak coastal access and most likely to benefit from TDM implementation.
- Office developments would have reduced parking requirements with the recommended rates. The recommended rate is 2 spaces per 1,000 SF in comparison to the current rate of 4 spaces per 1,000 SF.
- The most notable change for commercial uses is the reduction in parking required for eating and drinking establishments. Currently, 20 parking spaces per 1,000 SF are required for all types of restaurants and bars. The recommended rates reduce the parking requirements to 10 spaces per

1,000 SF for most eating and drinking establishments with a reduced rate of 5 spaces per 1,000 square feet required for small restaurants (less than 1,000 SF) and 4 spaces per 1,000 square feet required for take-out (no seating) restaurants.

### 4.6.4 Parking Credits Program

- A parking credits program is recommended for consideration to replace the current parking in-lieu fee program.
- A parking credits program would allow businesses to meet their minimum parking requirements using nearby spaces in publicly owned off-street lots that are underutilized.
- Parking credits can be made available to commercial uses for up to 100% of their required parking, provided that no one project may purchase more than 25% of the total credit pool. Purchase of parking credits does not grant the purchaser any special right to or exclusive use of individual parking spaces.
- Based on parking supply and demand data for existing conditions, the City could set the initial pool of parking credits at 98, representing the number of spaces that go unused during peak periods on the busiest summer weekend days in publicly owned off-street lots within the Venice Coastal Zone. The City could then re-evaluate parking utilization in public lots every two years and adjust the pool of available parking credits accordingly.
- The parking credit fee should generally be based on the value of a parking space in the Venice area. The initial parking credit fee could be set at $1,800 per space per year.
- The parking credit fee should be increased (or decreased) annually according to the most recent Construction Cost Index for the Los Angeles region, or equivalent index, as determined by LADOT, to be consistent with the annual adjustment made to the transportation impact fees in the area.
- Revenue from the parking credits program should be used to fund the parking management and transportation demand management strategies described in this report.

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# Appendix A: On-Street Parking Occupancy Maps

- A1: Non-Summer On-Street Parking Occupancy Weekday: 8am-10am
- A2: Non-Summer On-Street Parking Occupancy Weekday: 10am -12pm
- A3: Non-Summer On-Street Parking Occupancy Weekday: 12pm-2pm
- A4: Non-Summer On-Street Parking Occupancy Weekday: 2pm-4pm
- A5: Non-Summer On-Street Parking Occupancy Weekday: 4pm-6pm
- A6: Non-Summer On-Street Parking Occupancy Weekday: 6pm-8pm
- A7: Non-Summer On-Street Parking Occupancy Weekday: Overnight
- A8: Non-Summer On-Street Parking Occupancy Weekend: 8am-10am
- A9: Non-Summer On-Street Parking Occupancy Weekend: 10am-12pm
- A10: Non-Summer On-Street Parking Occupancy Weekend: 12pm-2pm
- A11: Non-Summer On-Street Parking Occupancy Weekend 2pm-4pm
- A12: Non-Summer On-Street Parking Occupancy Weekend 4pm-6pm
- A13: Non-Summer On-Street Parking Occupancy Weekend 6pm-8pm

- A14: Summer On-Street Parking Occupancy Weekday: 8am-10am
- A15: Summer On-Street Parking Occupancy Weekday: 10am -12pm
- A16: Summer On-Street Parking Occupancy Weekday: 12pm-2pm
- A17: Summer On-Street Parking Occupancy Weekday: 2pm-4pm
- A18: Summer On-Street Parking Occupancy Weekday: 4pm-6pm
- A19: Summer On-Street Parking Occupancy Weekday: 6pm-8pm
- A20: Summer On-Street Parking Occupancy Weekday: Overnight
- A21: Summer On-Street Parking Occupancy Weekend: 8am-10am
- A22: Summer On-Street Parking Occupancy Weekend: 10am-12pm
- A23: Summer On-Street Parking Occupancy Weekend: 12pm-2pm
- A24: Summer On-Street Parking Occupancy Weekend 2pm-4pm
- A25: Summer On-Street Parking Occupancy Weekend 4pm-6pm
- A26: Summer On-Street Parking Occupancy Weekend 6pm-8pm


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 8am-10am

## Figure A-1


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 10am-12pm

## Figure A-2


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 12pm-2pm

## Figure A-3


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 2pm-4pm

## Figure A-4


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 4pm-6pm

## Figure A-5


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: 6pm-8pm

## Figure A-6


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekday: Overnight

## Figure A-7


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 8am-10am

## Figure A-8


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 10am-12pm

## Figure A-9


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 12pm-2pm

## Figure A-10


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 2pm-4pm

## Figure A-11


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 4pm-6pm

## Figure A-12


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer On-Street Parking Occupancy
# Weekend: 6pm-8pm

## Figure A-13


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 8am-10am

## Figure A-14


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 10am-12pm

## Figure A-15


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 12pm-2pm

## Figure A-16


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 2pm-4pm

## Figure A-17


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 4pm-6pm

## Figure A-18


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: 6pm-8pm

## Figure A-19


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekday: Overnight

## Figure A-20


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 8am-10am

## Figure A-21


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 10am-12pm

## Figure A-22


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 12pm-2pm

## Figure A-23


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 2pm-4pm

## Figure A-24


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 4pm-6pm

## Figure A-25


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer On-Street Parking Occupancy
# Weekend: 6pm-8pm

## Figure A-26

# Appendix B: Parking Analysis Zones Occupancy Maps (On-Street and Off-Street)

- B1: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 8am-10am
- B2: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 10am-12pm
- B3: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 12pm-2pm
- B4: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 2pm -4pm
- B5: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 4pm-6pm
- B6: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: 6pm -8pm
- B7: Non-Summer Parking Occupancy On - Street + Off - Street Weekday: Overnight

- B8: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 8am-10am
- B9: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 10am-12pm
- B10: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 12pm-2pm
- B11: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 2pm -4pm
- B12: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 4pm-6pm
- B13: Non-Summer Parking Occupancy On - Street + Off - Street Weekend: 6pm -8pm

- B14: Summer Parking Occupancy On - Street + Off - Street Weekday: 8am-10am
- B15: Summer Parking Occupancy On - Street + Off - Street Weekday: 10am-12pm
- B16: Summer Parking Occupancy On - Street + Off - Street Weekday: 12pm-2pm
- B17: Summer Parking Occupancy On - Street + Off - Street Weekday: 2pm -4pm
- B18: Summer Parking Occupancy On - Street + Off - Street Weekday: 4pm-6pm
- B19: Summer Parking Occupancy On - Street + Off - Street Weekday: 6pm -8pm
- B20: Summer Parking Occupancy On - Street + Off - Street Weekday: Overnight

- B21: Summer Parking Occupancy On - Street + Off - Street Weekend: 8am-10am
- B22: Summer Parking Occupancy On - Street + Off - Street Weekend: 10am-12pm
- B23: Summer Parking Occupancy On - Street + Off - Street Weekend: 12pm-2pm
- B24: Summer Parking Occupancy On - Street + Off - Street Weekend: 2pm -4pm
- B25: Summer Parking Occupancy On - Street + Off - Street Weekend: 4pm-6pm
- B26: Summer Parking Occupancy On - Street + Off - Street Weekend: 6pm -8pm


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 8am-10am

## Figure B-1


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 10am-12pm

## Figure B-2


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 12pm-2pm

## Figure B-3


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 2pm-4pm

## Figure B-4


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 4pm-6pm

## Figure B-5


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 6pm-8pm

## Figure B-6


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : Overnight

## Figure B-7


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 8am-10am

## Figure B-8


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 10am-12pm

## Figure B-9


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 12pm-2pm

## Figure B-10


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 2pm-4pm

## Figure B-11


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 4pm-6pm

## Figure B-12


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 6pm-8pm

## Figure B-13


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 8am-10am

## Figure B-14


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 10am-12pm

## Figure B-15


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 12pm-2pm

## Figure B-16


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 2pm-4pm

## Figure B-17


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 4pm-6pm

## Figure B-18


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : 6pm-8pm

## Figure B-19


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekday : Overnight

## Figure B-20


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 8am-10am

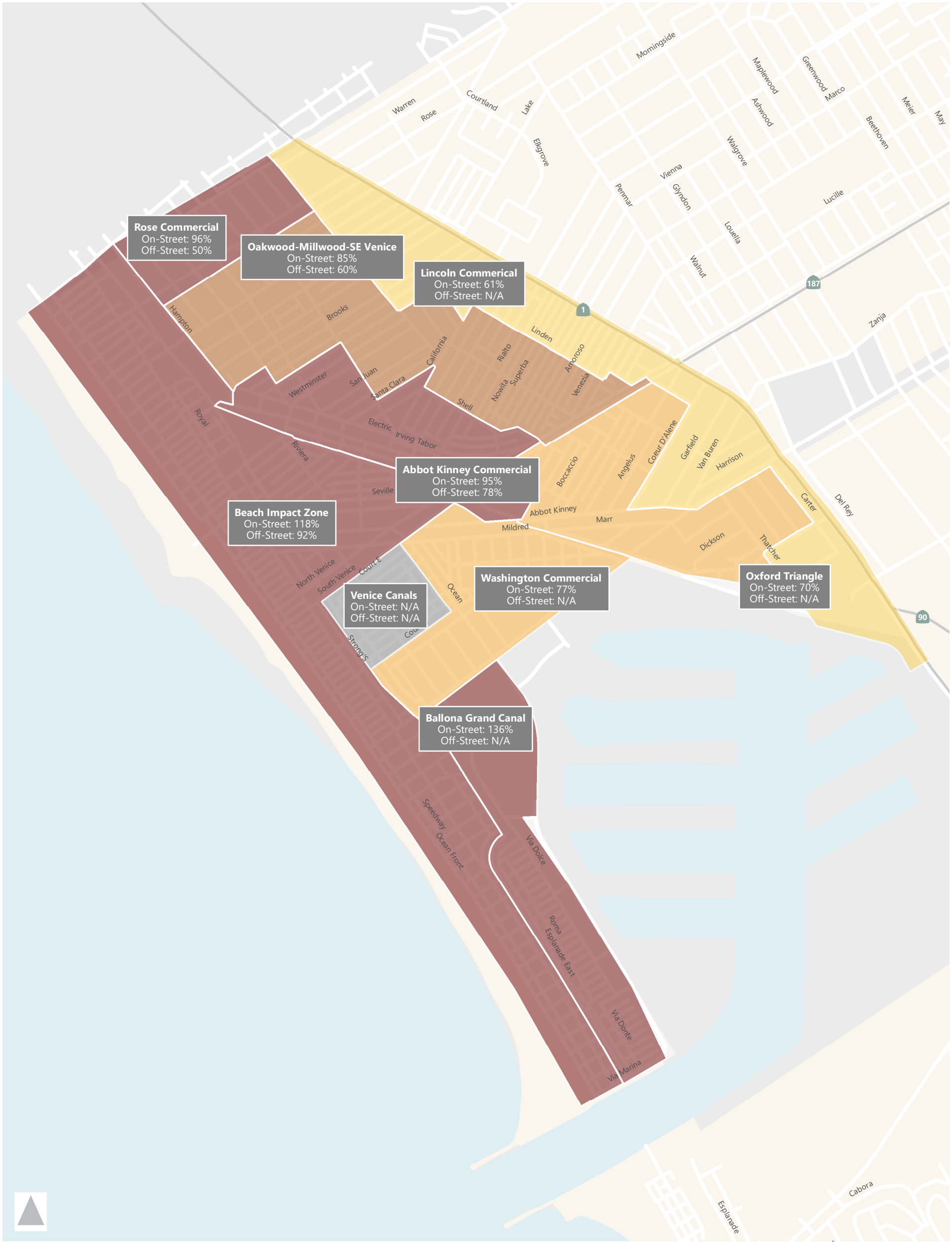
## Figure B-21


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

## Summer Parking Occupancy
## On-Street + Off-Street
## Weekend : 10am-12pm

**Figure B-22**

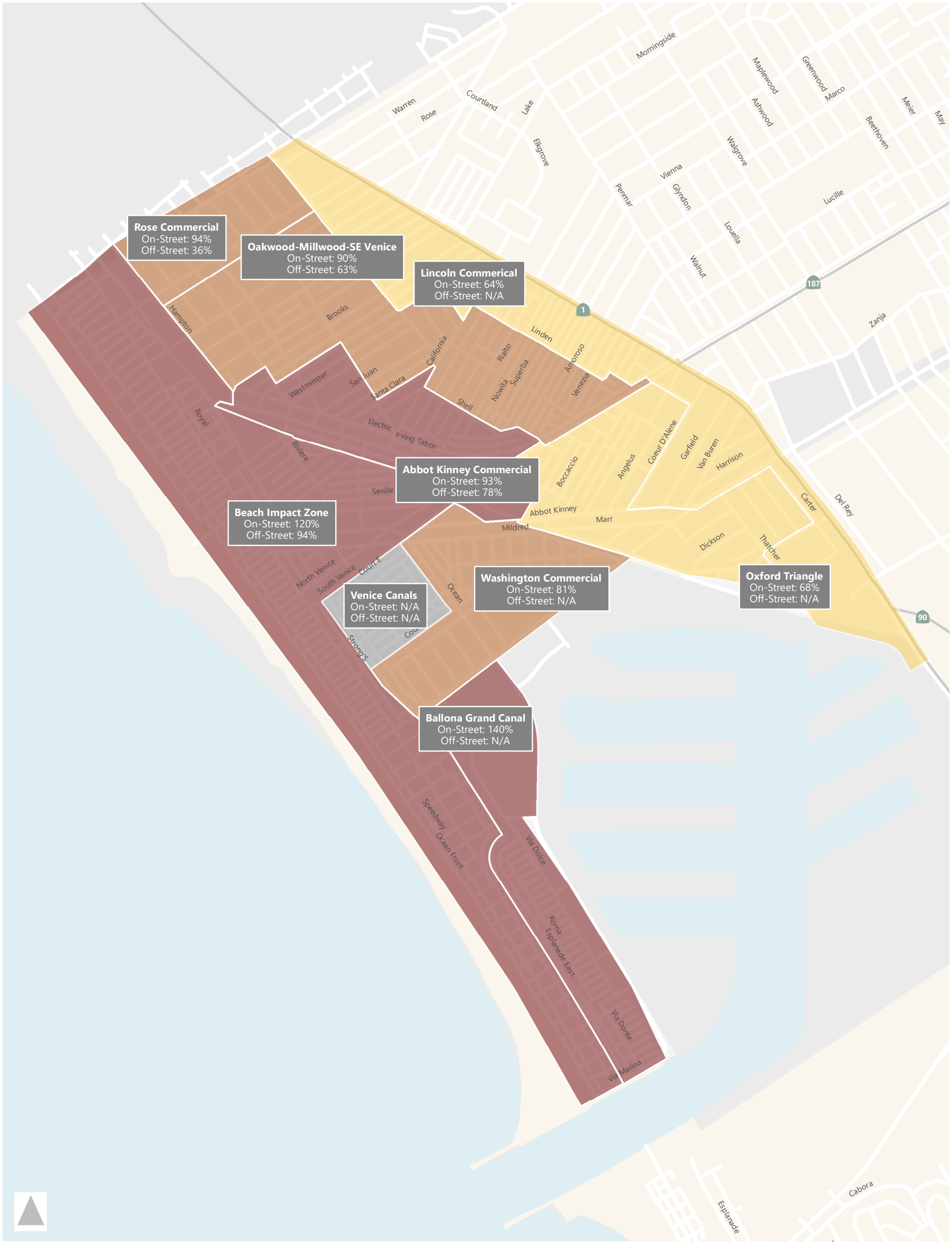



**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 12pm-2pm

## Figure B-23

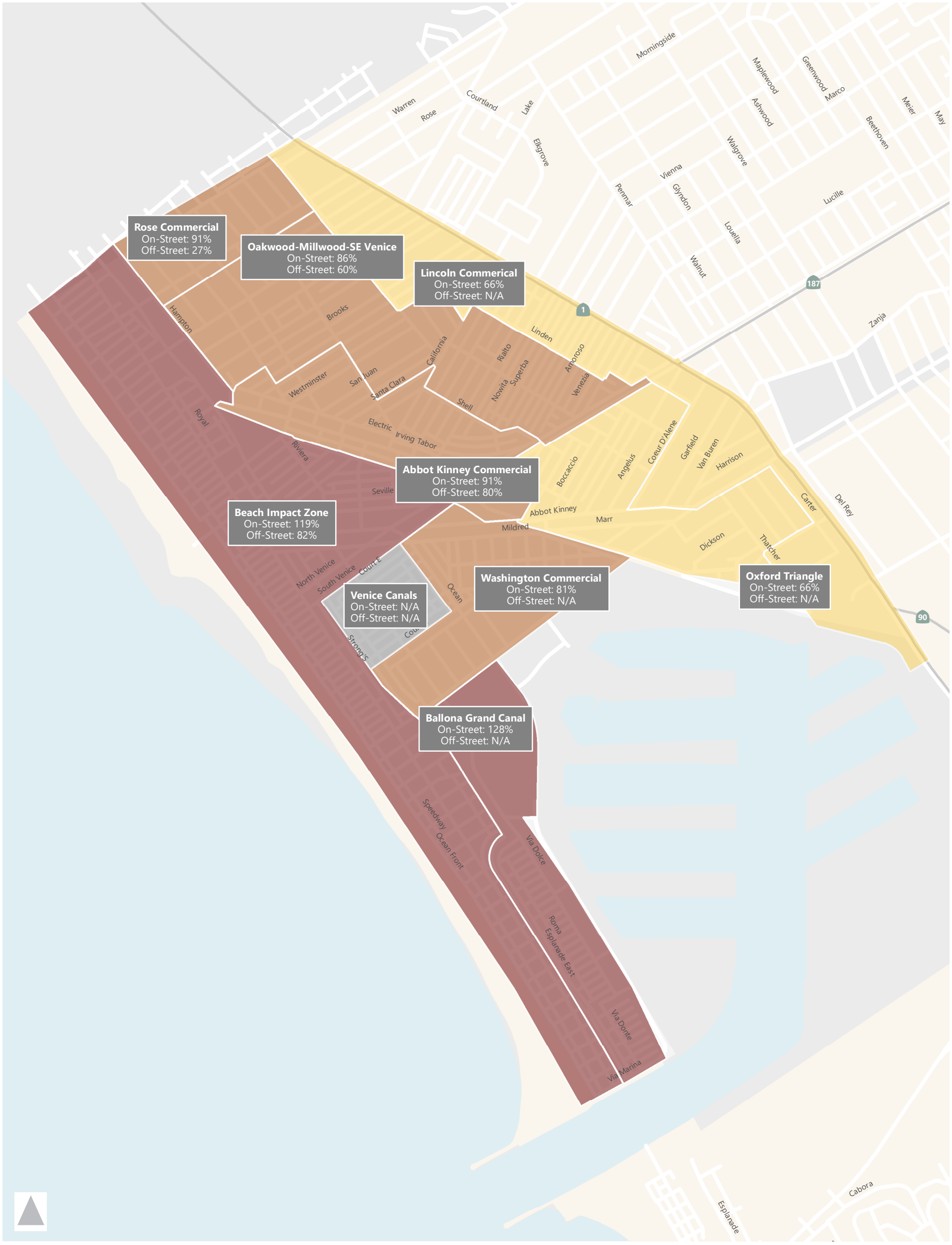



**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 2pm-4pm

## Figure B-24




**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 4pm-6pm

## Figure B-25


**Percent Occupancy**

- Less than 60%
- 61% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Occupancy
# On-Street + Off-Street
# Weekend : 6pm-8pm

## Figure B-26

# Appendix C: Off-Street Parking Occupancy Maps

- C1: Non-Summer Parking Lot Occupancy Weekday Parking: 8am-10am
- C2: Non-Summer Parking Lot Occupancy Weekday Parking: 10am -12pm
- C3: Non-Summer Parking Lot Occupancy Weekday Parking: 12pm-2pm
- C4: Non-Summer Parking Lot Occupancy Weekday Parking: 2pm-4pm
- C5: Non-Summer Parking Lot Occupancy Weekday Parking: 4pm-6pm
- C6: Non-Summer Parking Lot Occupancy Weekday Parking: 6pm-8pm

- C7: Non-Summer Parking Lot Occupancy Weekend Parking: 8am-10am
- C8: Non-Summer Parking Lot Occupancy Weekend Parking: 10am-12pm
- C9: Non-Summer Parking Lot Occupancy Weekend Parking: 12pm-2pm
- C10: Non-Summer Parking Lot Occupancy Weekend Parking: 2pm-4pm
- C11: Non-Summer Parking Lot Occupancy Weekend Parking: 4pm-6pm
- C12: Non-Summer Parking Lot Occupancy Weekend Parking: 6pm-8pm

- C13: Summer Parking Lot Occupancy Weekday Parking: 8am-10am
- C14: Summer Parking Lot Occupancy Weekday Parking: 10am -12pm
- C15: Summer Parking Lot Occupancy Weekday Parking: 12pm-2pm
- C16: Summer Parking Lot Occupancy Weekday Parking: 2pm-4pm
- C17: Summer Parking Lot Occupancy Weekday Parking: 4pm-6pm
- C18: Summer Parking Lot Occupancy Weekday Parking: 6pm-8pm

- C19: Summer Parking Lot Occupancy Weekend Parking: 8am-10am
- C20: Summer Parking Lot Occupancy Weekend Parking: 10am -12pm
- C21: Summer Parking Lot Occupancy Weekend Parking: 12pm-2pm
- C22: Summer Parking Lot Occupancy Weekend Parking: 2pm-4pm
- C23: Summer Parking Lot Occupancy Weekend Parking: 4pm-6pm
- C24: Summer Parking Lot Occupancy Weekend Parking: 6pm-8pm


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 8am-10am

## Figure C-1


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 10am-12pm

## Figure C-2


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 12pm-2pm

## Figure C-3


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 2pm-4pm

## Figure C-4


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 4pm-6pm

## Figure C-5


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekday Parking: 6pm-8pm

## Figure C-6


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 8am-10am

## Figure C-7


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 10am-12pm

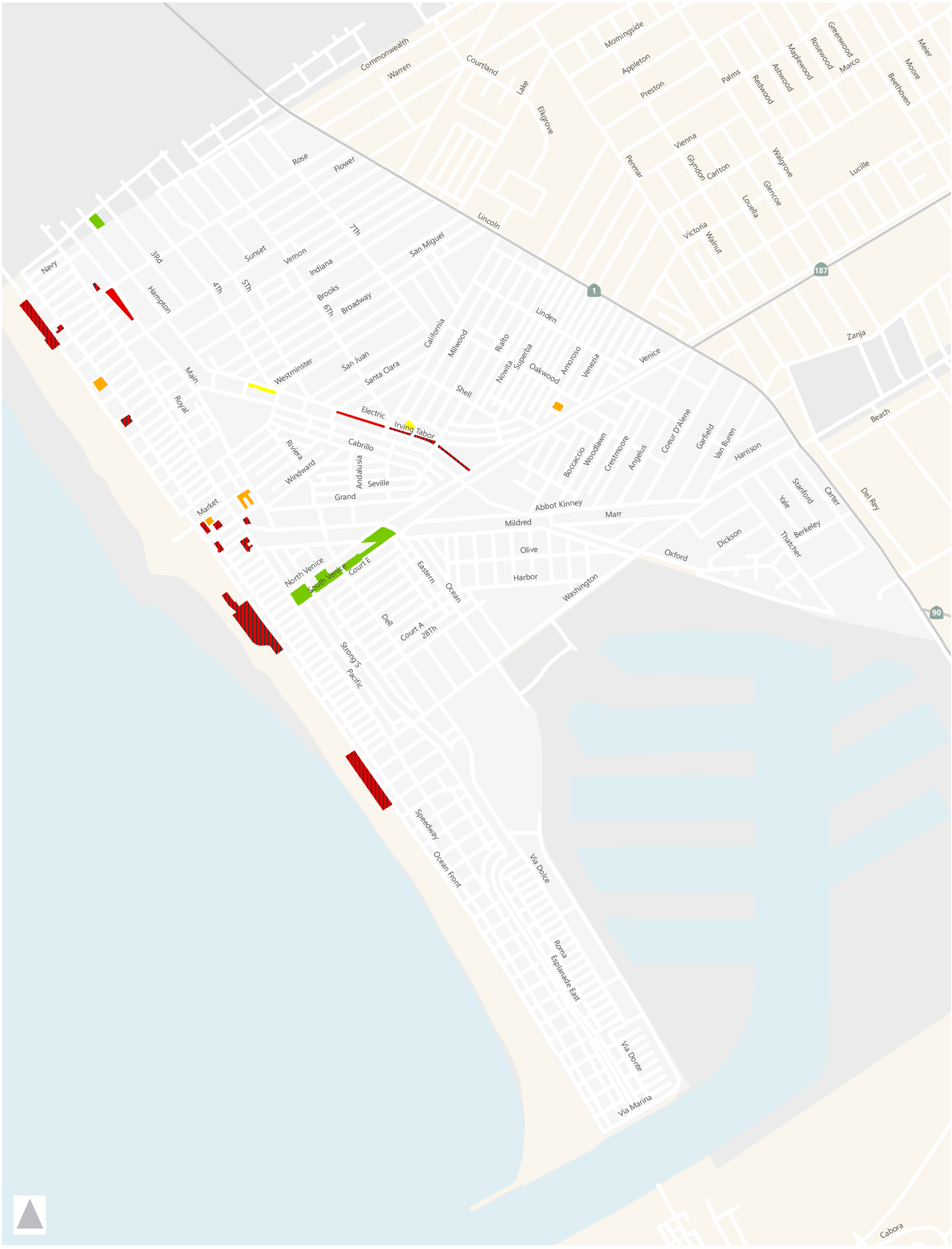
## Figure C-8


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 12pm-2pm

## Figure C-9

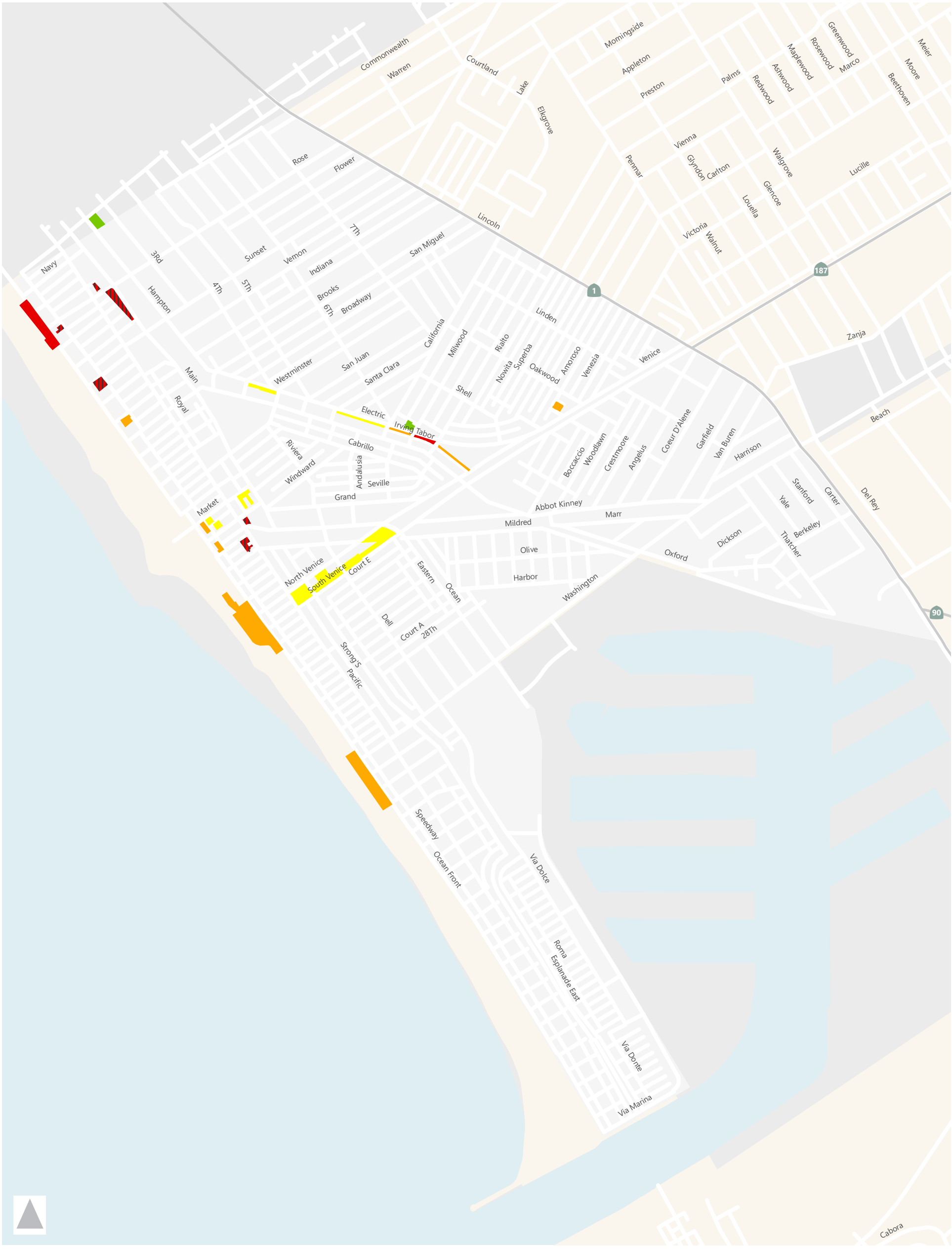



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 2pm-4pm

## Figure C-10




**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 4pm-6pm

## Figure C-11


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Non-Summer Parking Lot Occupancy
# Weekend Parking: 6pm-8pm

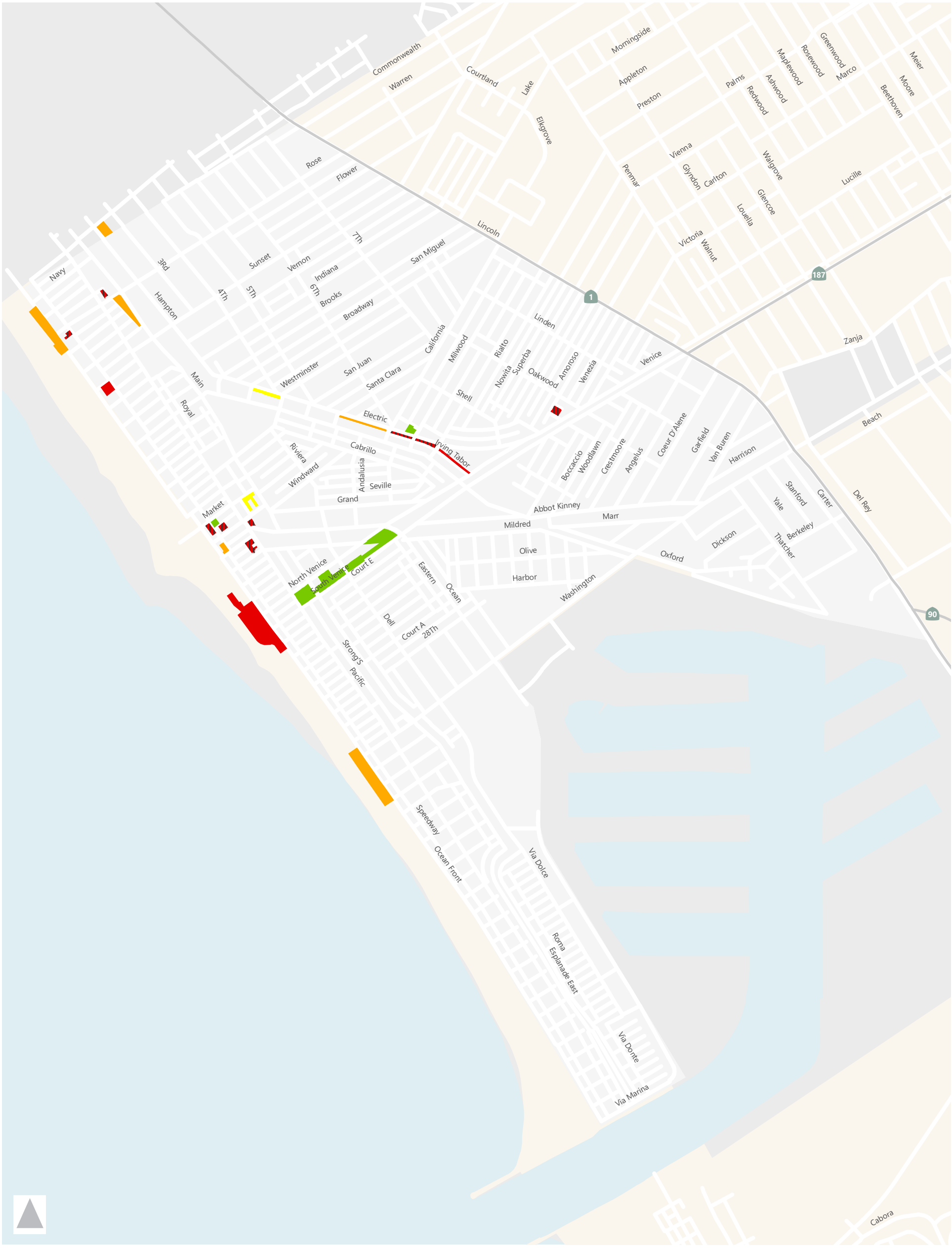
## Figure C-12


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 8am-10am

## Figure C-13

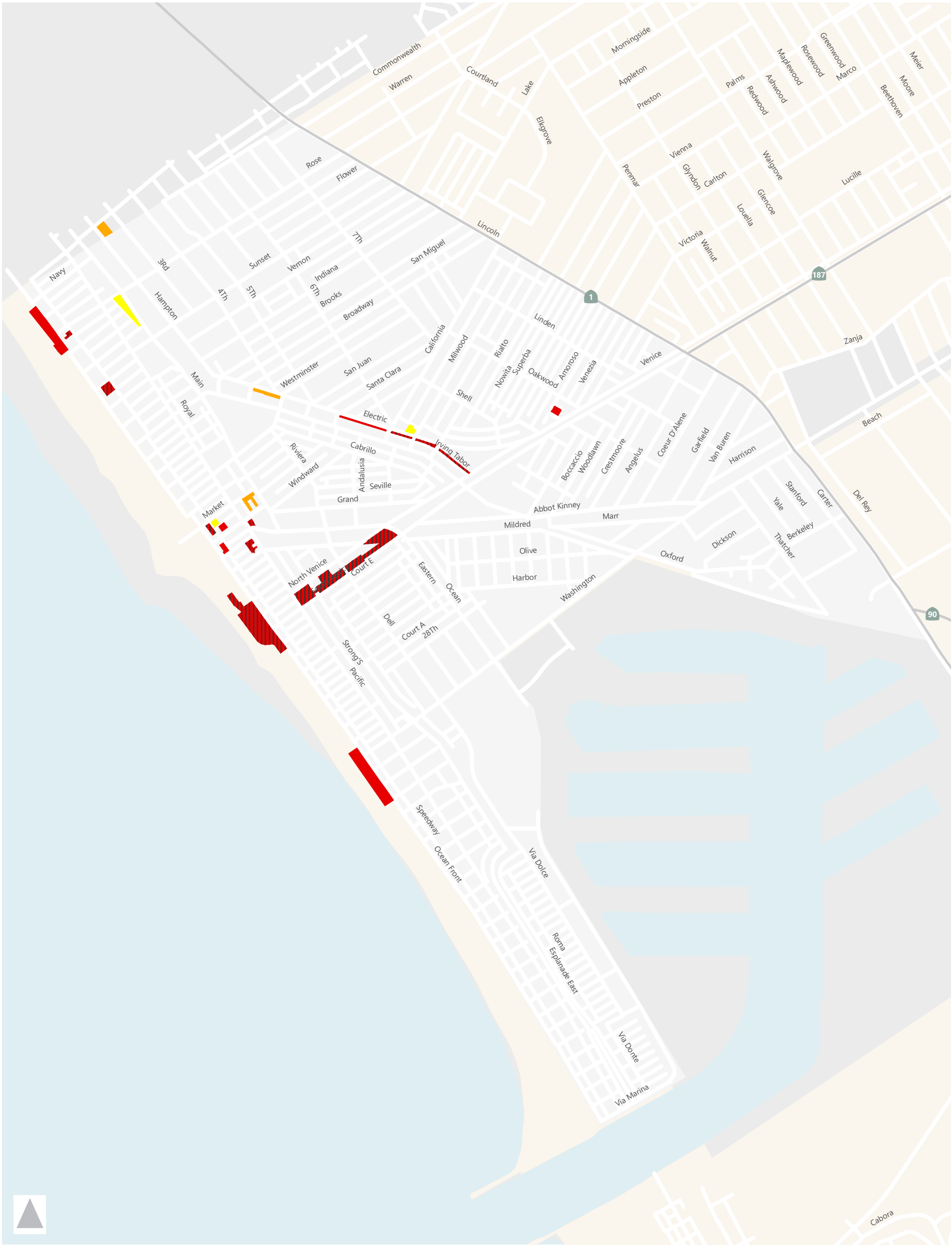



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 10am-12pm

## Figure C-14

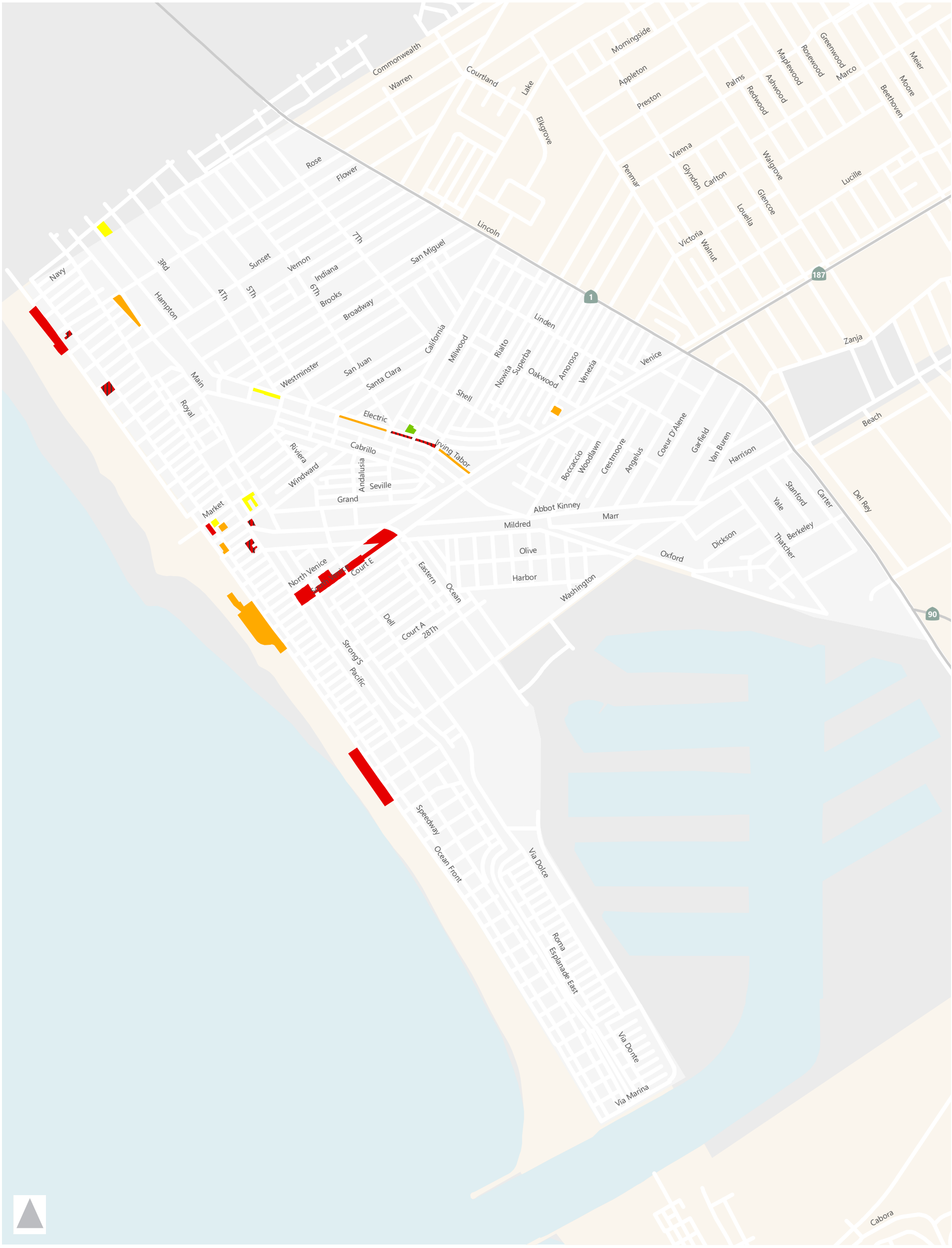



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 12pm-2pm

## Figure C-15

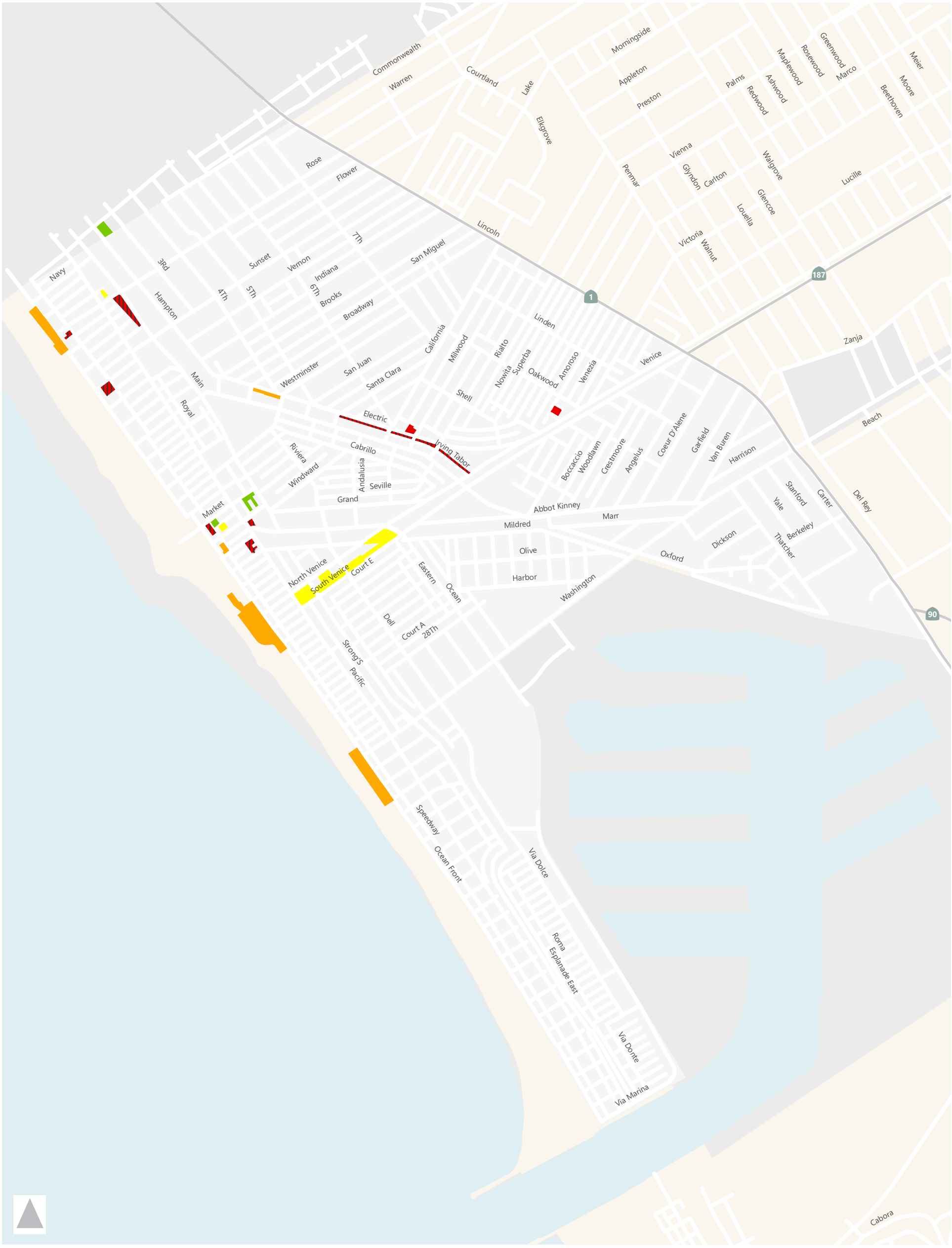



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 2pm-4pm

## Figure C-16




**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 4pm-6pm

## Figure C-17


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 6pm-8pm

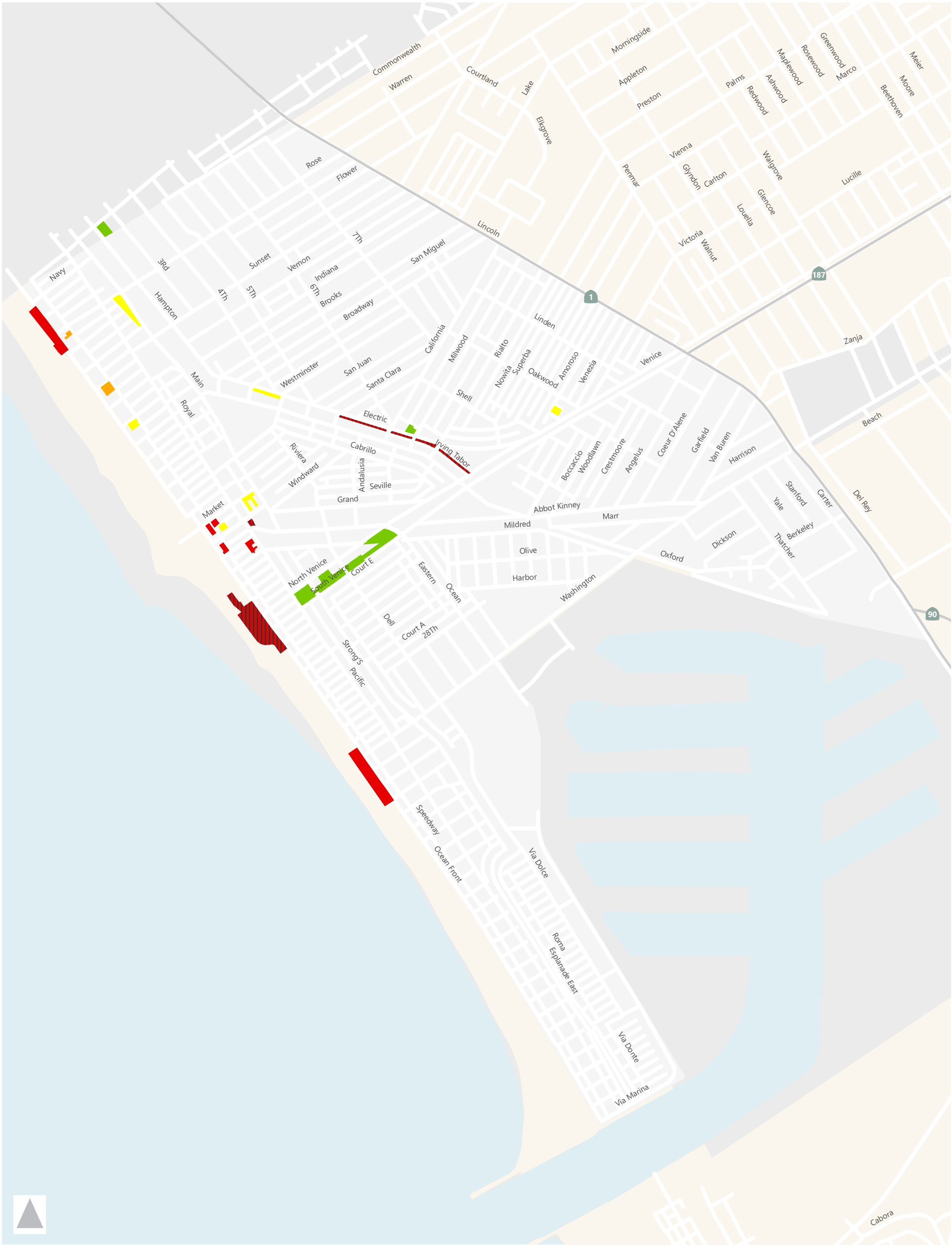
## Figure C-18


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekend Parking: 8am-10am

## Figure C-19

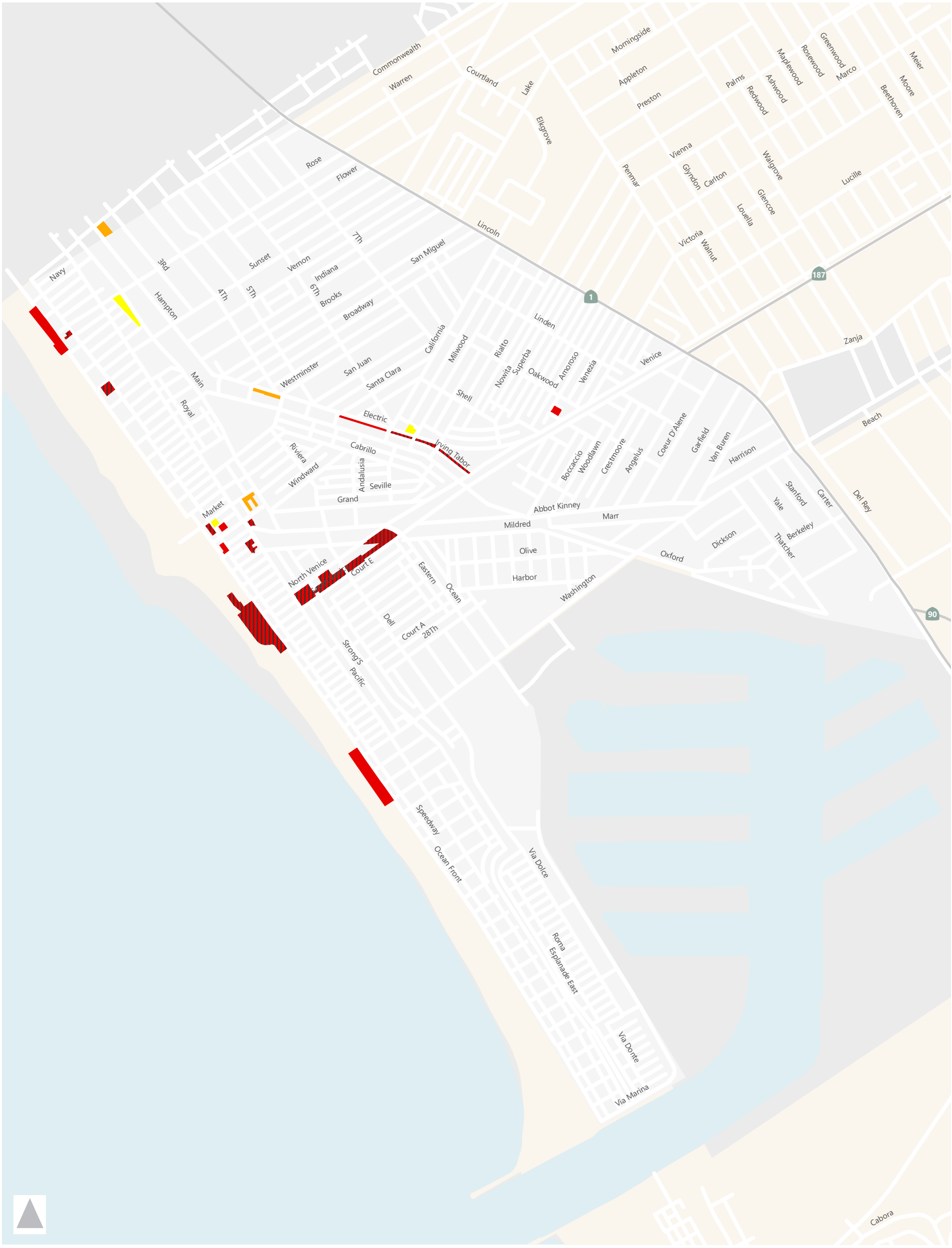



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekend Parking: 10am-12pm

## Figure C-20

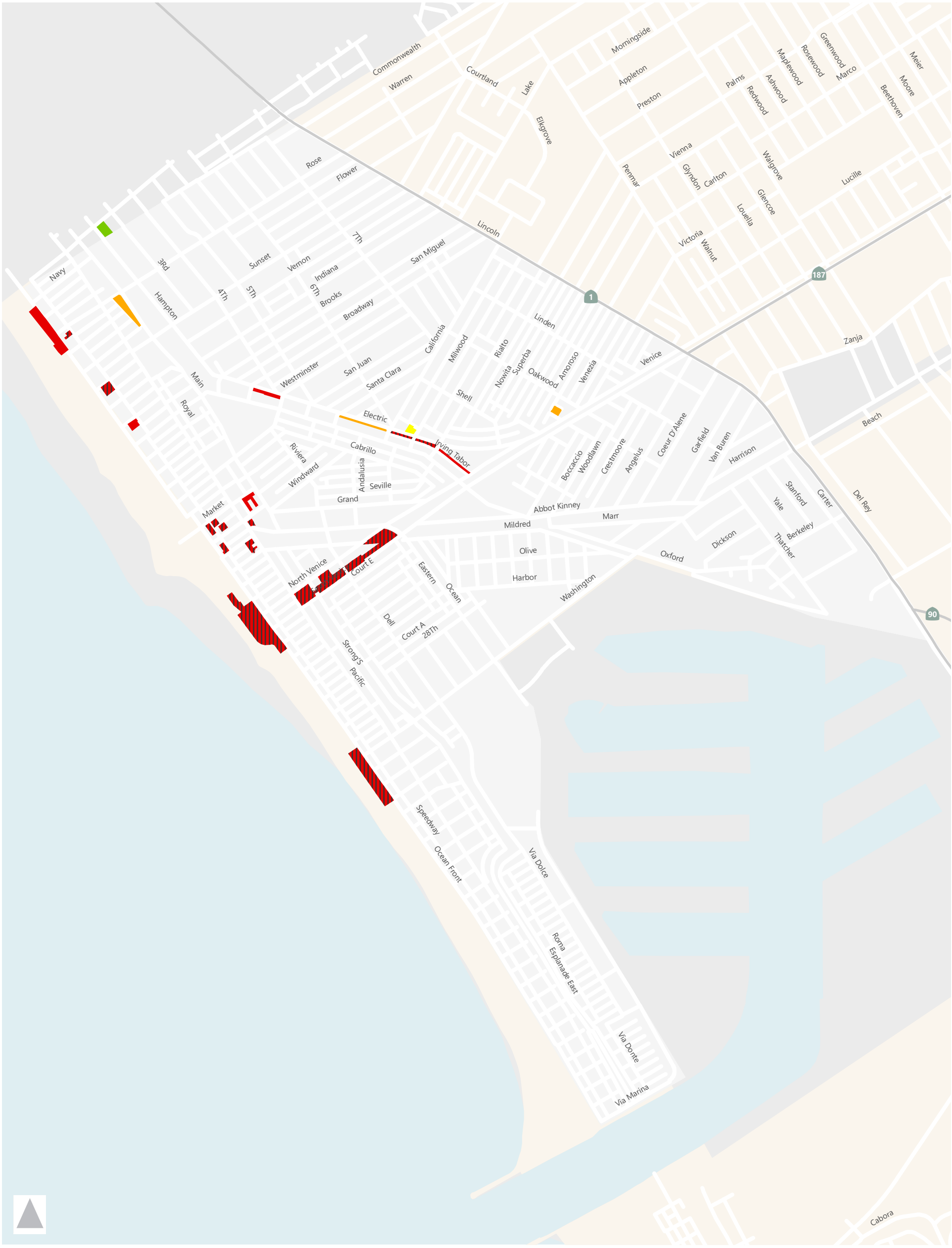



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekday Parking: 12pm-2pm

## Figure C-21

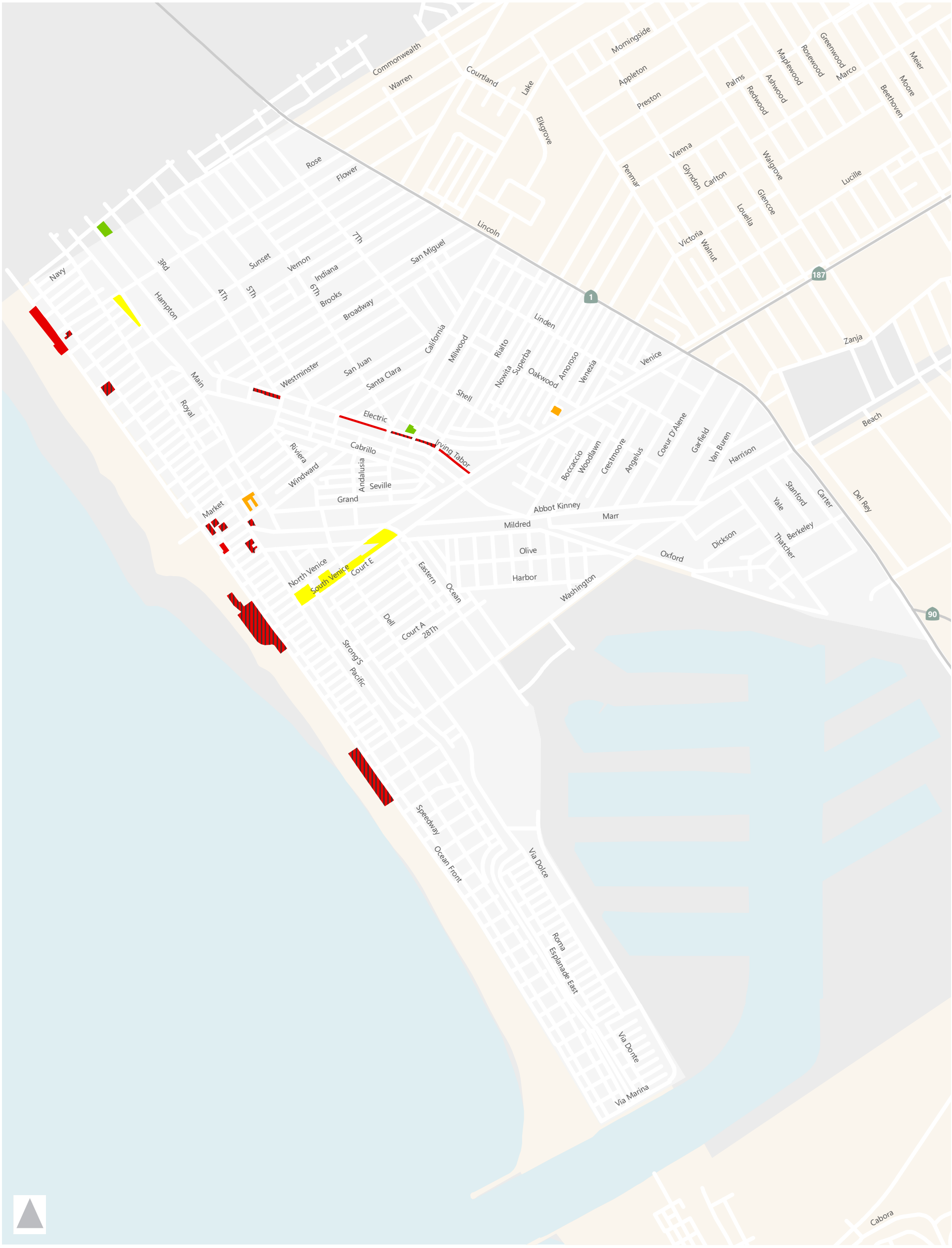



**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekend Parking: 2pm-4pm

## Figure C-22




**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekend Parking: 4pm-6pm

## Figure C-23


**Percent Occupancy**

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- City Boundary

# Summer Parking Lot Occupancy
# Weekend Parking: 6pm-8pm

## Figure C-24