City of Carlsbad

Parking Data Collection Comparison Memorandum (August 2019)

FINAL DRAFT

Glossary of Terms

The following terms and concepts are used throughout this Comparison Memorandum to describe the performance of the parking system or individual components of the parking system.

Effective Capacity

Effective capacity is an industry-accepted occupancy threshold for parking facilities that indicates the efficiency of the facility or system. Based on industry standards, the primary threshold is 85 percent of the total capacity of the parking system and/or certain areas within the system. This is the threshold that indicates whether the parking system is operating effectively. For example, when observed or projected occupancies are under this threshold, users can typically locate spaces easily. When observed or projected occupancies are at or above this threshold, users cannot typically find available parking easily.[1]

In-lieu Fee

In-lieu fee, as provided for in the existing Village and Barrio Master Plan (effective outside the Coastal Zone) and Village Master Plan and Design Manual (effective inside the Coastal Zone), is a cash payment made by a developer to the city instead of providing the total number of minimum parking space or spaces required by the code. These payments are calculated on a per space basis to reduce a portion or all of a development's parking requirement. Fees are collected and used in a defined area to provide additional parking supply, or parking-related infrastructure and services. The in-lieu fee program is available only to non-residential projects.

License Plate Recognition Technology (LPR)

License plate recognition technology is a computer-based optical system that can sense the presence of a license plate. Once a license plate is detected, a plate number may be recorded in addition to a time and location. This technology can be used for data collection to better understand parking behaviors and/or perform parking enforcement activities.

Parking Demand

Parking demand is the metric representing the projected quantity of parking generated by employees, patrons, residents, visitors, and others associated with a business or land use within the parking system. Each business or land use generates a certain quantity of demand for parking spaces to accommodate their users. The total number of spaces generated by business or land use patrons at a given time is the parking demand for that business or land use. This

[1] "Parking 101: A parking Primer: A Publication of the International Parking Institute", International Parking Institute, 2015; "Shared Parking, Second Edition", Urban Land Institute

demand is based on the land use intensity (building square footage or number of units) and the land use type (restaurant, office space, retail, single and multi-family residential, etc.). Parking demand may differ from the actual parking supply or standard parking requirements.

Parking Duration

Parking duration is a measure of how long vehicles are parked in a parking space. This metric is analyzed through data collection efforts and is used to help define policies such as parking time limits.

Parking Facility

A parking facility refers to any on- or off-street location designated for parking.

Parking Occupancy

Parking occupancy is the percentage of occupied spaces in a parking facility at a given time. Parking occupancy is calculated by dividing the number of observed or projected vehicles parked in a facility by the number of total spaces in the facility.

Parking System

Parking system refers to the entire collection of parking spaces, parking facilities, technologies, equipment, policies, regulations, and personnel that work together to provide the parking needs of employees, patrons, residents, visitors, and other users in a study area.

Introduction

In 2016, Kimley-Horn developed a Parking Management Plan (PMP) for the City of Carlsbad that resulted in a set of parking management strategies that are intended to balance parking and transportation demands and needs of the various users in the study area (visitors, residents, business owners, etc.), while creating a system that is sustainable.

Since the completion of the PMP in 2016, the City continues proactively assessed the implementation of various components of the PMP recommendations, including tracking parking occupancy and duration data to re-evaluate parking demands for the study area and the various individual neighborhoods, as appropriate.

This iteration of the Carlsbad Parking Data Collection is to document the data collection and its findings for August 2019, representing the peak season. **Figure 1** on the following page illustrates the study area and three sub-areas.

Key Themes

Several key themes were identified from the August 2019 data collection. While many data points were considered as part of the analysis, this section is intended to highlight recurring themes observed and provide a summation of the data discussed in greater detail throughout this report.

- The parking inventory increased slightly from 11,462 spaces in the August 2018 collection to 11,496 total spaces in the August 2019 collection. The only changes to the inventory were the following: a reclassification of 197 private on-street spaces to private parking to better reflect their ownership, the addition of 39 on-street spaces along Carlsbad Boulevard and Beech Avenue completed in October 2018, and the removal of 5 on-street spaces along Carlsbad Boulevard and Beech Avenue to accommodate a North County Transit District (NCTD) bus stop in Spring 2019.
- The August 2019 weekday peak occurred during the 9:00 AM – 12:00 PM collection at approximately 41% for the overall study area. The August 2019 weekend peak occurred during the 12:00 PM – 3:00 PM collection at approximately 45% for the overall study area.
- The weekday peak parking occupancy decreased from August 2018 to August 2019 (from 49% occupancy to 41% occupancy) while the weekend peak increased slightly (from 44% occupancy to 45% occupancy).

- Both weekday and weekend utilization show a midday peak below 50% with lower occupancies in the morning and evening.
- All categories of parking supplies within the Barrio neighborhood (on-street, public off-street, and private parking) continued a pattern of consistent underutilization.
- The Village is an area to continue to monitor. This area was observed to have the greatest parking demands. Although several individual facilities were observed at or above effective capacity, the area overall is not yet exceeding the 85 percent threshold, and public parking supplies were available within a reasonable walking distance of all individual facilities at or above 85 percent utilization.
- Public off-street parking within the Outside Master Plan sub-area (public beach lots) observed high parking demands during the weekend between 12:00 PM – 6:00 PM. However, a majority of parking facilities did not exceed effective capacity and public parking supplies were available within a reasonable walking distance of all individual facilities at or above 85 percent utilization.

Figure 1: Data Collection Study Area

Parking Data Collection Methodology

The intent of this 2019 round of data collection and analysis is to effectively compare any parking changes within the last three years during a typical weekday and weekend. As such, the parking data collection in 2019 was conducted during the same season and time periods as was done in 2016 and 2018 to present a similar comparison of the data. In 2016, the data was collected in July, and in 2018 in August, both of which represented the peak season. Data was not collected in 2017 but re-collected on a semi-annual basis starting 2018. For this recent round of collection, the data was collected in August 2019 during a typical peak season weekday and weekend. Parking inventory, occupancy, and duration data was collected throughout the study area to determine and evaluate parking demands.

The data was collected in a similar manner as was done in the first year of data collection (2016), with the use of video cameras and License Plate Recognition (LPR) technology. A camera placed on the dashboard of the data collection vehicle was used to record the number of vehicles and license plate numbers in the study area. The vehicle drives continuous loops through each collection area, documenting the vehicles and its license plate parking off-street and on-street. In post-processing, LPR technology was applied to the video to read the license plates collected in the videos. Data was collected for all accessible off-street and on-street parking facilities shown in **Figure 1** on the previous page.

Methodologies for this data collection can be found in previous iterations of this report.

Parking Inventory Changes

This report identifies the parking inventory changes between the peak season parking data collections, which were performed in July 2016, August 2018, and August 2019. Since the most recent peak season parking data collection in August 2018, the inventory has slightly increased from 11,462 to 11,496 spaces. For parking inventory during the shoulder and off seasons, please refer to the May 2018 and January 2019 parking data collection.

During the July 2016 data collection, the PMP study area consisted of 11,657 on-street and off-street parking spaces. In August 2018, the same study area decreased by 2 percent resulting in a total of 11,462 spaces (details of these inventory changes are provided in the previous years' analyses). For the August 2019 data collection, the parking supply within the study area increased slightly to 11,496 spaces. **Table 1** summarizes the parking inventory for each collection year by facility type.

Table 1: Annual Parking Inventory Comparison[1]

PARKING TYPE[2]	JUL 2016 (SPACES)	AUG 2018 (SPACES)	AUG 2019 (SPACES)
On-Street Parking	4,971	4,971	4,808
Off-Street Public Parking	730	703	703
Private Parking	5,445	5,247	5,444
NCTD Transit Lots	511	541	541
Total Spaces in Study Area	11,657	11,462	11,496

Notes:
1Data was not collected in 2017.
2Color next to parking type corresponds with Figure 1.

Parking Occupancy Comparison

One critical metric utilized in analyzing parking data is occupancy, which is a measurement of how much a facility is being used at a given time. Occupancy can be used to indicate the parking efficiency associated with each facility. When analyzing parking occupancy, the primary industry accepted threshold for identifying demand constraints for a system is when occupancies reach 85% – 90% consistently. When occupancies for a parking system reach this level of occupancy, parking efficiency starts to deteriorate, and changes need to be implemented to maintain efficiency of the system. The 10% – 15% remaining capacity accounts for those vehicles leaving a space and the few spaces that are scattered throughout the system or a facility that one might have to search for an extended period of time to find. For the purposes of this analysis, the critical threshold of 85 percent was used to determine how well the parking in the study area is operating.

During August 2019, the study area observed a weekday peak at 9:00 AM – 12:00 PM with an occupancy of 41 percent and a weekend peak at 12:00 PM – 3:00 PM with an occupancy of 45 percent. **Table 2** compares the peak times and occupancies, based on average occupancies for the entire system for each parking facility type, on the days surveyed in 2016 and 2018 as well as August 2019.

The August 2019 data collection reveals that parking demand in the overall study area decreased compared to peak season counts in July 2016 and August 2018. The time of day that the study area peaks fluctuates between the peak season data collection counts with peaks varying from the early morning to early afternoon timeframe, but remaining within normal business hours.

Table 2: July/August Peak Parking Occupancies by Facility Type and Data Collection Year

PARKING TYPE[1]	2016 WEEKDAY (6 PM – 9 PM)	2016 WEEKEND (6 PM – 9 PM)	2018 WEEKDAY (12 PM – 3 PM)	2018 WEEKEND (3 PM – 6 PM)	2019 WEEKDAY (9 AM – 12 PM)	2019 WEEKEND (12 PM – 3 PM)
On-Street Parking	50%	53%	52%	54%	40%	52%
Off-Street Public Parking	34%	51%	62%	59%	41%	69%
Private Parking	35%	36%	40%	32%	40%	33%
NCTD Transit Lots	61%	45%	79%	49%	67%	55%
Study Area	53%	54%	49%	44%	41%	45%

Notes:
[1]Color next to parking type corresponds with Figure 1.

Figure 2 on the following page shows the weekday occupancy trends between July 2016, August 2018, and August 2019, with weekend trends depicted in **Figure 3**.

Figure 2: Weekday Peak Season Parking Occupancy Trends

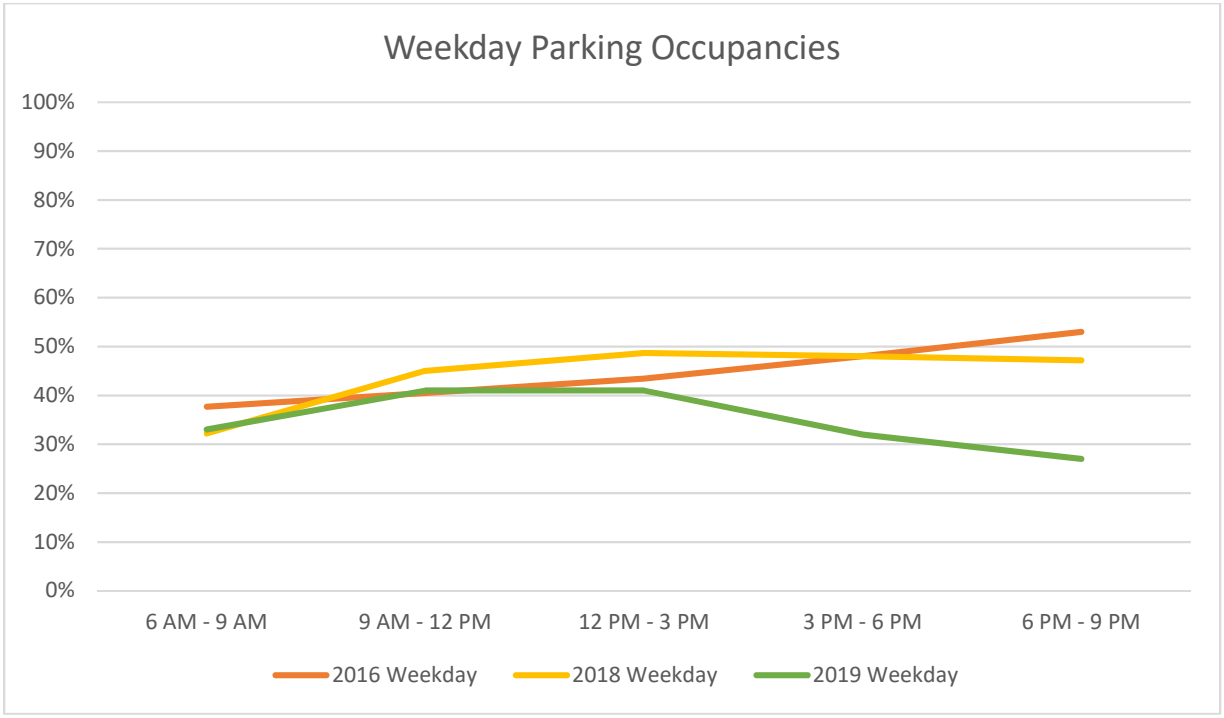
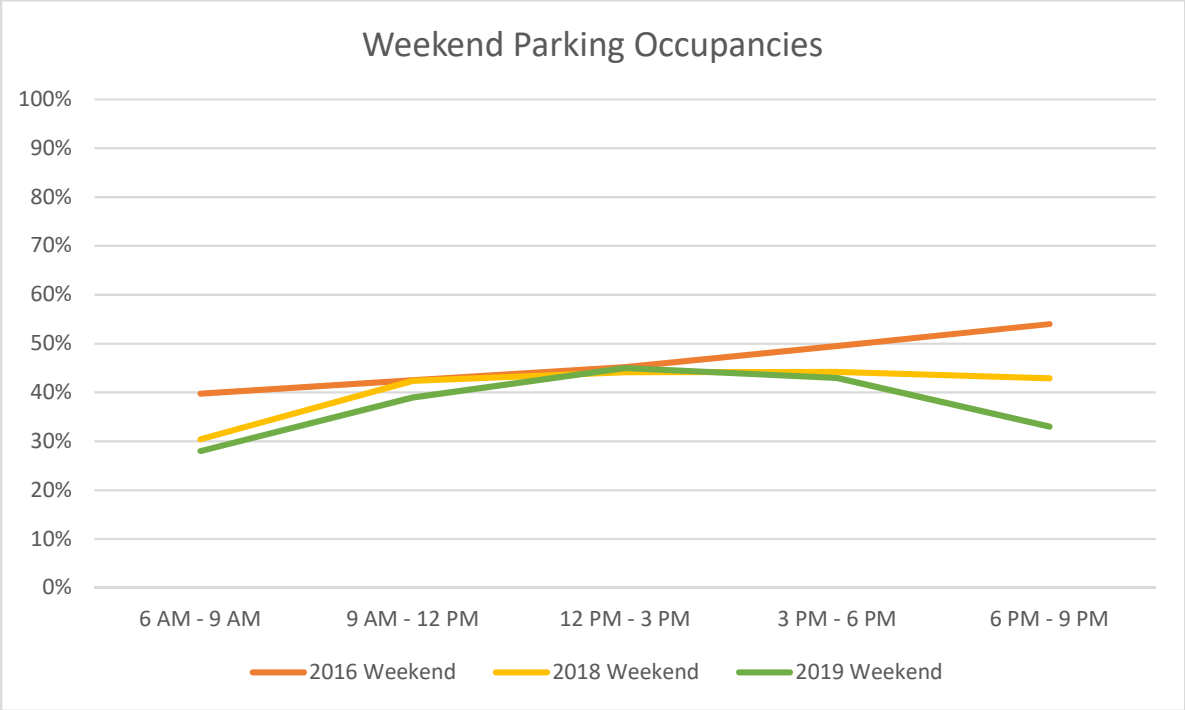


Figure 3: Weekend Peak Season Parking Occupancy Trends



The figures above illustrate the occupancy trends throughout the day for the July 2016, August 2018, and August 2019 weekday and weekend data. The intent of these figures is to show the parking occupancies for the peak season over time for the study area. The study area occupancies have shown minimal change since the previous data collection years with slight reductions year-over-year in the periods after 3:00 PM.

In **Table 2** on page 9, parking occupancies for July 2016, August 2018, and August 2019 weekday and weekend data are shown by facility type and provided for the study area as a whole. Comparing the entire study area for 2016 and 2019, occupancies have shown a 12 percentage point decrease for the weekday peak from 53 percent to 41 percent, and a 9 percentage point decrease for the weekend peak from 54 percent to 45 percent. The study area as a whole continues to be underutilized.

Although the August 2019 results show the study area having plenty of parking supply available during the weekday and weekend peaks (9:00 AM – 12:00 PM and 12:00 PM – 3:00 PM, respectively), some facilities are either approaching and/or exceeding the effective capacity threshold. **Figure 4** illustrates the peak occupancy for the August 2019 weekday data collected.

There were several on-street and private off-street facilities with occupancies approaching and/or exceeding the 85 percent effective capacity threshold (represented by the orange and red colors) mainly in the northern portion of Outside Master Plan sub-area (i.e., generally along the Ocean Street corridor) and in the Village sub-area (i.e., along State Street corridor, and north of Pine Avenue).

Figure 5 illustrates the peak occupancy for the August 2019 weekend data collected. It shows on-street facilities and public off-street facilities throughout the Beach areas (i.e., west of the railroad tracks) with occupancies approaching and/or exceeding the 85 percent effective capacity threshold. During the 2019 weekend collection, several private off-street facilities in the beach areas experienced occupancies under 75 percent. However, this may change over time if vehicles are unable to find an available spot in a surrounding facility that is exceeding the 85 percent effective capacity. As use of these private lots may increase in the future, they are lots to watch.

Generally, from the August 2018 to the August 2019, the demand for parking showed a decline throughout the day. This could be due to relatively fewer special events than previous collections during the peak season, increased use of alternative forms of transportation, construction, or other variables that impact parking demands. As was the case in 2018, the parking supply in the study area overall remains underutilized. However, there are locations exceeding the 85 percent effective capacity threshold.

Figure 4: 2019 August Weekday Peak Parking Occupancy (9:00 AM – 12:00 PM)

Figure 5: 2019 August Weekend Peak Parking Occupancy (12:00 PM – 3:00 PM)

Parking Thresholds

As stated previously, occupancy data is a metric widely used to evaluate the effectiveness of a parking system. At 85 percent occupied, a parking system is considered to be at effective capacity and changes need to be implemented to make more parking available for people. Conversely, underutilized parking is also not desirable as it indicates that the parking is inconvenient. A typical "sweet spot" for parking occupancy is 75 percent. At this level, the area is active and lively, but people can find available parking. Additionally, facilities at the 75 percent threshold are ones that should be observed from year to year for occupancy changes. Additional demand in these facilities can easily tip these facilities into the 85 percent threshold. While 75 percent occupancy is desirable, it must be actively maintained through annual observations and management.

This section of this document examines the facilities that are operating (1) at an acceptable level of 75 percent and up to an occupancy of 84 percent, (2) at or above the 85 percent effective capacity, or (3) below 75 percent, or at an occupancy considered underutilized. This section also presents options for future growth or shared parking opportunities.

75 Percent Threshold

In August 2019, 14 facilities, representing about 3 percent of the system's parking supply (394 spaces) were observed to operate in the 75 to 84 percent range during the weekday. **Figure 6** illustrates the location of the facilities with occupancies between 75 percent and 84 percent for August 2019. As the map shows, the parking facilities operating within 75 percent and 84 percent are dispersed throughout the study area.

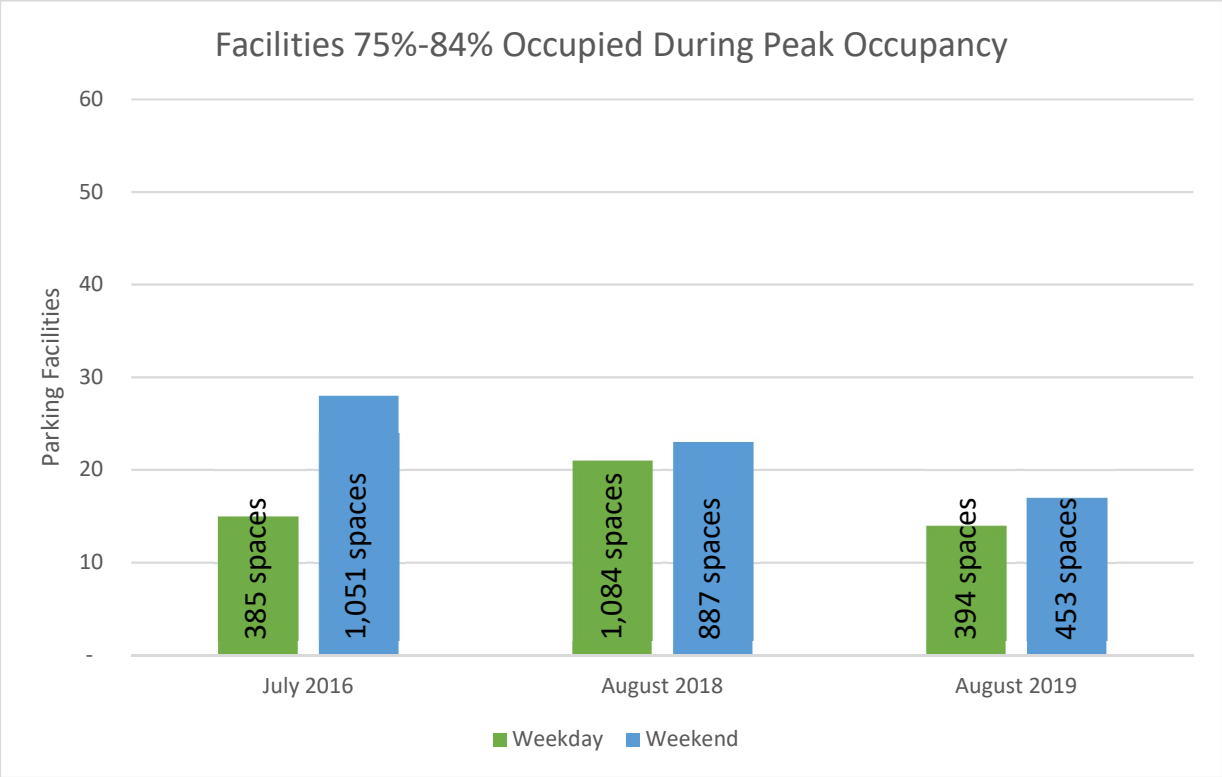
During the weekend, the number of facilities with occupancies between 75 percent and 84 percent totaled 17 facilities, representing about 4 percent of the overall parking system's supply. **Figure 7** illustrates the facilities with occupancies between 75 percent and 84 percent for the weekend peak occupancy in August 2019. The facilities experiencing occupancies between 75 percent and 84 percent during the August 2019 weekend peak were concentrated in the beach areas, the area south of Oak Avenue, and west of the railroad tracks.

Figure 8 provides a comparative summary of the number of facilities and spaces for the peak season of data collection from 2016 to 2019 for both weekdays and weekends.

Figure 6: Weekday Peak Parking Facilities 75 to 84 Percent Occupancy

Figure 7: Weekend Peak Parking Facilities 75 to 84 Percent Occupancy

Figure 8: Number of Parking Facilities 75 to 84 Percent Occupancy per Year



85 Percent Threshold

During the weekday peak (9:00 AM – 12:00 PM) in August 2019, 34 facilities were observed to operate at or above 85 percent occupancy. These facilities represent approximately 7 percent of the total parking supply (849 spaces). This is a decrease from the 2018 peak season, which saw 10 percent of spaces having occupancies of 85 percent or greater.

During the weekend peak (12:00 PM – 3:00 PM) in August 2019, 48 facilities were observed to operate at or above 85 percent occupancy, which is about 12 percent of the spaces within the study area, or 1,361 spaces. **Figure 9** provides a comparative summary of parking facilities observed to have occupancies at or above 85 percent during the weekday and weekend peaks for the study area for July 2016, August 2018, and August 2019.

Figure 9: Number of Parking Facilities ≥85 Percent Occupancy per Year

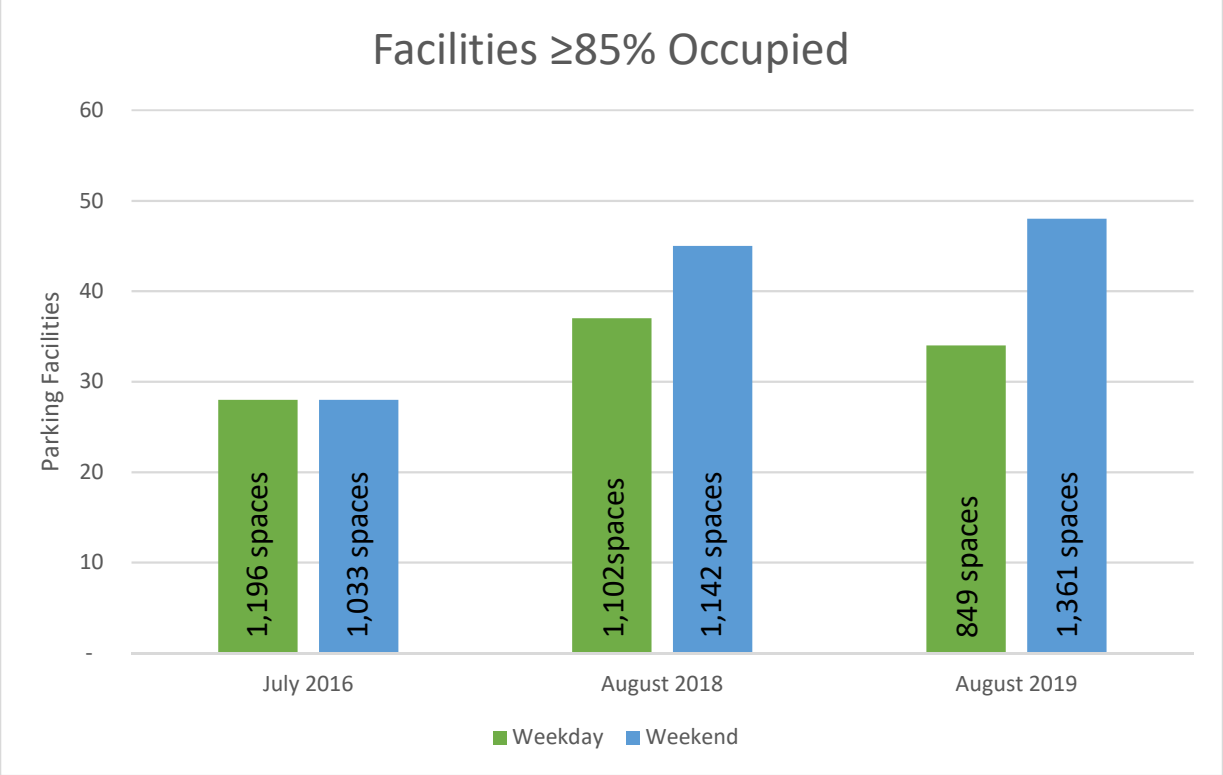


Figure 10 illustrates the parking facilities experiencing demands at or above 85 percent during the weekday peak in August 2019. It shows that facilities operating at or above 85 percent are mostly within the Village, with a few facilities being in the Barrio. Of the 34 facilities that were observed with occupancies at or above 85 percent during the August 2019 weekday peak (Figure 10), 21 were private parking lots, 10 were on-street public facilities, two ere NCT parking facilities, and one was an off-street parking facility.

Figure 11 illustrates the parking facilities experiencing demands at or above 85 percent during the weekend peak in August 2019. It shows that facilities operating at or above 85 percent are mostly within the Village and Beach Areas. In general, the number of spaces operating at or above 85 percent declined between the August 2018 and August 2019 peak seasons on the weekday and increased on the weekend (as shown in **Figure 9**). Of the 48 facilities that were observed with occupancies at or above 85 percent during the August 2019 weekend peak (Figure 11), 32 were on-street public parking facilities, seven were off-street public parking facilities, six were private parking lots, and three were NCTD parking facilities.

Figure 10: Weekday Peak Parking Facilities 85 Percent Occupancy or Greater

Figure 11: Weekend Parking Peak Facilities 85 Percent Occupancy or Greater

Sub-Area Analyses

The previous section reviewed the August 2019 data and findings for the study area as a whole in comparison to 2016 and 2018 peak season data collection. The study area also contains three distinct sub-areas that have differing characteristics and should be reviewed separately to highlight specific trends and challenges unique to each area.

- The Barrio area, as defined by the Village and Barrio Master Plan
- The Village area, also as defined by the Village and Barrio Master Plan
- "Outside Master Plan" areas, which encompass primarily the beach neighborhoods south and west of the master plan but also residential areas south of the Barrio around Jefferson Elementary School and east of the Village in the neighborhood bordered generally by Grand Avenue, Jefferson Street, and Laguna Drive

Figure 12 illustrates the boundaries of the Village and Barrio Master Plan, the Village and Barrio sub-areas within it, and the Outside Master Plan sub-area. Separating the data in these sub-area boundaries allows the data to be analyzed in a way that focuses on facilities that have a higher impact on that specific area. This analysis can also be helpful for making parking management decisions as different strategies may have to be implemented differently or at different times in each sub-area, depending on what the data indicates.

Figure 12: Village and Barrio Master Plan Boundaries

Barrio Area

The Barrio area is located in the southeast portion of the study area, generally bounded by Interstate 5 to the east, the railroad corridor to the west, Oak Avenue to the north and Tamarack Avenue to the south. This area is mainly residential; however, there are a few local businesses along Roosevelt and Tyler Streets to the northwest. The Pine Avenue Park, Community Center and Gardens are located within the center of this area. Parking within the Barrio contains mainly public on-street and private off-street, with the exception of two public off-street facilities at Pine Avenue Park. **Table 3** below, compares the August 2019 average parking occupancies throughout the day for each facility type within this area.

Table 3: August 2019 Parking Occupancies by Facility Type Master Plan Barrio Area

PARKING TYPE	DAY	6 AM – 9 AM	9 AM – 12 PM	12 PM – 3 PM	3 PM – 6 PM	6 PM – 9 PM
On-Street	Weekday	29%	35%	32%	27%	26%
	Weekend	30%	39%	36%	33%	40%
Public Off-Street	Weekday	7%	19%	31%	19%	7%
	Weekend	7%	23%	39%	47%	21%
Private Off-Street	Weekday	44%	40%	27%	30%	28%
	Weekend	42%	36%	29%	32%	34%

The results in Table 3 show occupancies for on-street facilities within the Barrio at or below 40 percent throughout the weekday and weekend periods surveyed, peaking at 40 percent during the weekend 6:00 PM – 9:00 PM observations. Occupancies for on-street facilities within the Barrio area were consistently underutilized for all time periods across weekday and weekend days. During the August 2019 observations, all categories of parking supplies were underutilized during all collection periods.

Village Area

The Village area is located north of the Barrio area predominately between Interstate 5 to the east, the Pacific Ocean to the west, Laguna Drive to the north and Oak Avenue and Walnut Avenue to the south. However, there are several "pockets" within these boundaries that will be analyzed in the next section. This area consists of various land uses, such as apartments, general retail, offices, restaurants, and single-family homes. **Table 4** below, compares the August 2019 average parking occupancies throughout the day for each facility type within this area.

Table 4:August 2019 Parking Occupancies by Facility Type Master Plan Village Area

PARKING TYPE	DAY	6 AM – 9 AM	9 AM – 12 PM	12 PM – 3 PM	3 PM – 6 PM	6 PM – 9 PM
On-Street	Weekday	27%	42%	43%	26%	21%
	Weekend	28%	49%	49%	44%	33%
Public Off-Street	Weekday	41%	58%	57%	51%	49%
	Weekend	21%	52%	74%	83%	53%
Private Off-Street	Weekday	29%	42%	41%	36%	29%
	Weekend	22%	28%	32%	31%	22%
NCTD	Weekday	53%	67%	68%	58%	39%
	Weekend	14%	21%	55%	49%	39%

Table 4 occupancy results shows the Village Area experiencing higher demand for on-street and off-street public facilities than the Barrio Area. On-street parking occupancies reach a peak of 49% on weekends from 9:00 AM – 3:00 PM. Occupancies are the highest in public off-street facilities, with occupancies reaching 83 percent on weekends between 3:00 PM – 6:00 PM. Although public off-street facilities have relatively high occupancies, they still fall below the 85 percent effective capacity threshold during all time periods.

Outside Master Plan Areas

Areas "outside" the master plan consists of predominately beach neighborhoods, with several residential areas north of the Village and south of the Barrio areas. The beach portion of this area is primarily bounded by the Pacific Ocean to the west, the railroad corridor to the east, Ocean Street to the north, and Tamarack Avenue to the south. Uses here include a mix of residences, some businesses, and Army and Navy Academy facilities. The residential area north of the Village is generally east of Jefferson Street and north of Grand Avenue. The area south of the Barrio borders Tamarack Avenue and is centered around Jefferson Elementary School.

Table 5 below compares the August 2019 average parking occupancies throughout the day for each facility type within this area.

Table 5: August 2019 Weekday and Weekend Parking Occupancies by Facility Type Outside Master Plan Areas (Predominately Beach Area)

PARKING TYPE	DAY	6 AM – 9 AM	9 AM – 12 PM	12 PM – 3 PM	3 PM – 6 PM	6 PM – 9 PM
On-Street	Weekday	41%	41%	42%	27%	21%
	Weekend	39%	55%	66%	58%	37%
Public Off-Street	Weekday	27%	34%	41%	44%	47%
	Weekend	32%	47%	93%	100%	86%
Private Off-Street	Weekday	33%	34%	34%	31%	32%
	Weekend	32%	36%	38%	41%	30%

Table 5 illustrates a similar trend in this area as in the Village Area, where parking occupancies in the public off-street facilities are greater than occupancies in on-street or private off-street facilities. On-street parking occupancies see a decrease in occupancy after 3:00 PM on weekdays and reach a peak of 66% on weekends at 12:00 PM to 3:00 PM. Weekday occupancies are the highest in public off-street facilities, with occupancies of 47% on weekdays between 6:00 PM – 9:00 PM. On weekends, occupancies of 100% occur between 3:00 PM – 6:00 PM.

Areas of Interest

Given the localized nature of parking demands, subdividing the study area for analysis based on broad neighborhood boundaries may provide diluted insights that may not reflect the experiences of a localized area. While these sub-areas will continue to be considered during the analysis for each biannual update, moving forward, this report will specifically address areas of interest as identified in analysis of the previous period's update and as identified in current study area analysis, as appropriate. Data for the entire study is maintained, and a macro level analysis based on larger areas may still be performed, if necessary.

Based on the study area analysis of peak weekday and weekend occupancies, the area centered on State Street and Grand Avenue with a quarter mile radius has been identified as an area of interest for monitoring due to concentration of highly utilized parking facilities within this zone. **Figure 13** provides a more detailed look at this portion of the study area during the weekday peak (9:00 AM – 12:00 PM) with the weekend peak (12:00 PM – 3:00 PM) shown in **Figure 14**. The black boundary overlay represents a 1,320-foot buffer from the center of this intersection.

At approximately one quarter of a mile, 1,320 feet is considered a comfortable walking distance for the average person.

Figure 13: Weekday Peak Parking Area of Interest

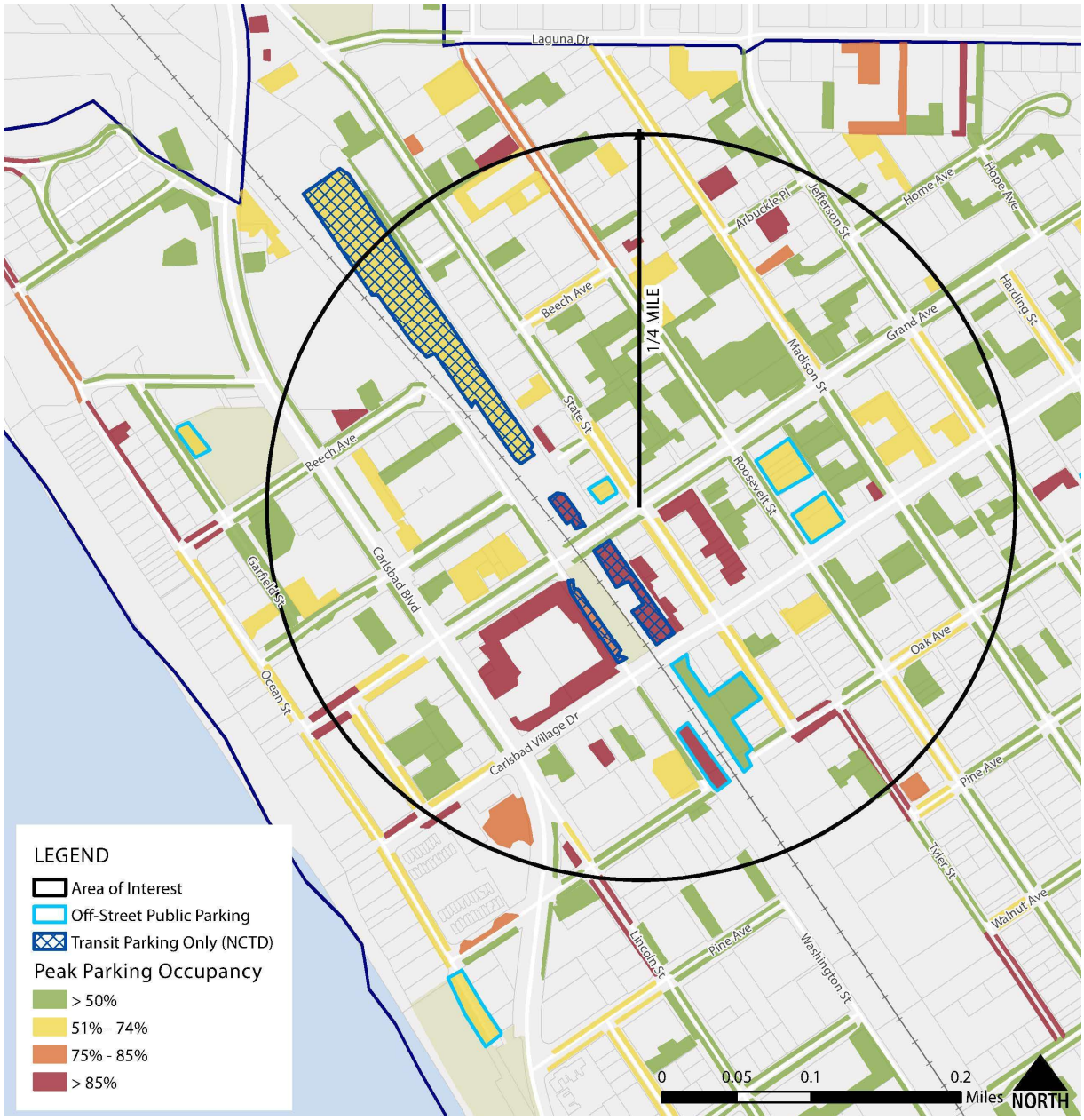
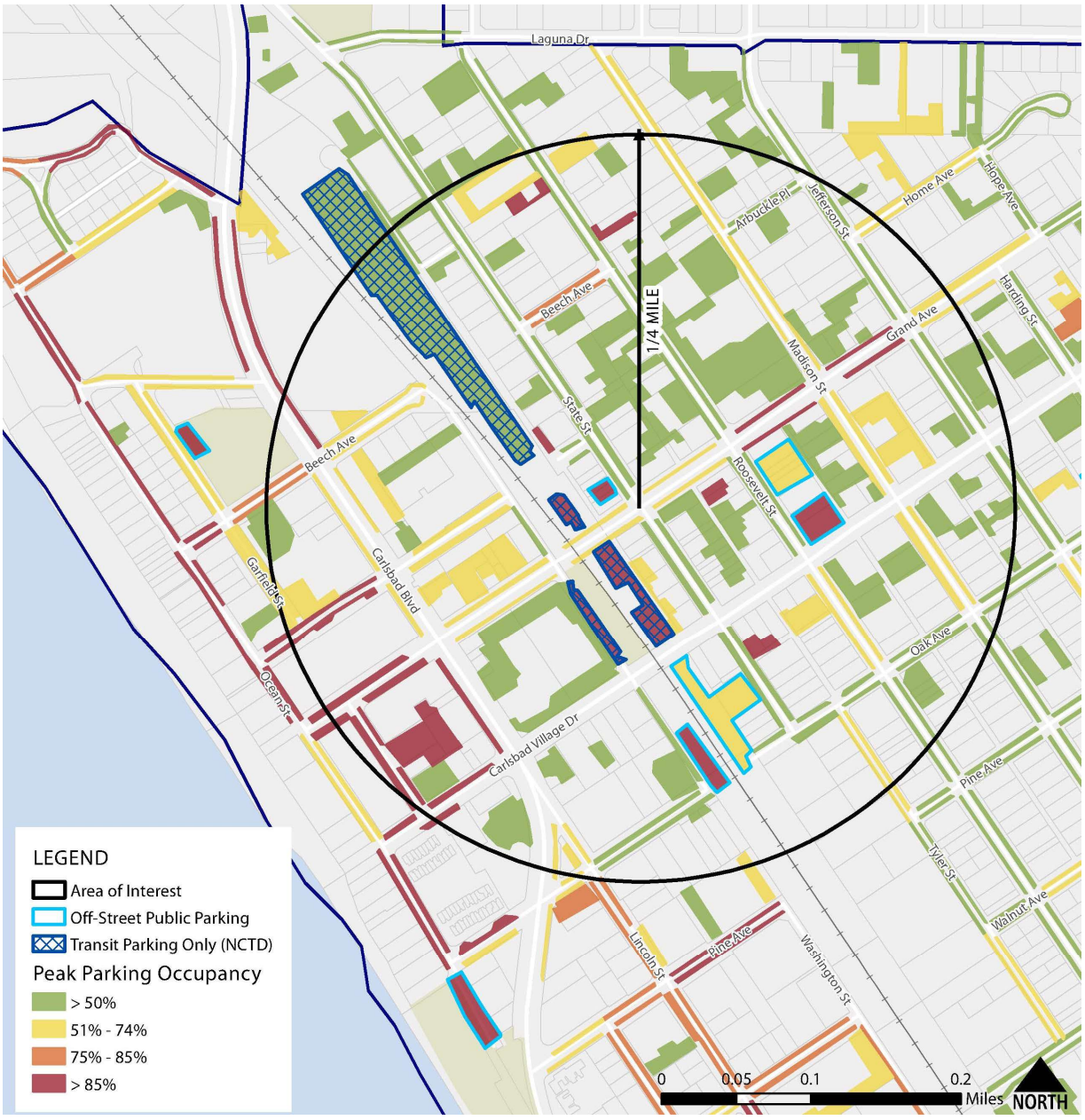


Figure 14: Weekend Peak Parking Area of Interest



These two maps show the overall study area provides a greater concentration of parking demand within this zone. However, **Table 6** provides a closer analysis of parking within this area by facility type and demonstrates that there remains an abundance of available parking. As demonstrated in the table, public off-street parking facilities and transit facilities demonstrated

at or above 50 percent utilization during the weekday peak conditions. Public off-street facilities were 60 percent utilized while transit parking facilities were 67 percent utilized. With the weekend peak conditions for August 2019, public off-street facilities demonstrated a high utilization of 74 percent.

Table 6: August 2019 Parking Occupancies by Facility Type for Area of Interest

PARKING TYPE	SUPPLY	WEEKDAY PEAK	WEEKEND PEAK
On-Street	1,322	593 Vehicles 45% Occupied	671 Vehicles 51% Occupied
Private Off-Street	2,130	925 Vehicles 43% Occupied	759 Vehicles 36% Occupied
Public Off-Street	274	165 Vehicles 60% Occupied	204 Vehicles 74% Occupied
NCTD Transit Lots	541	361 Vehicles 67% Occupied	300 Vehicles 45% Occupied

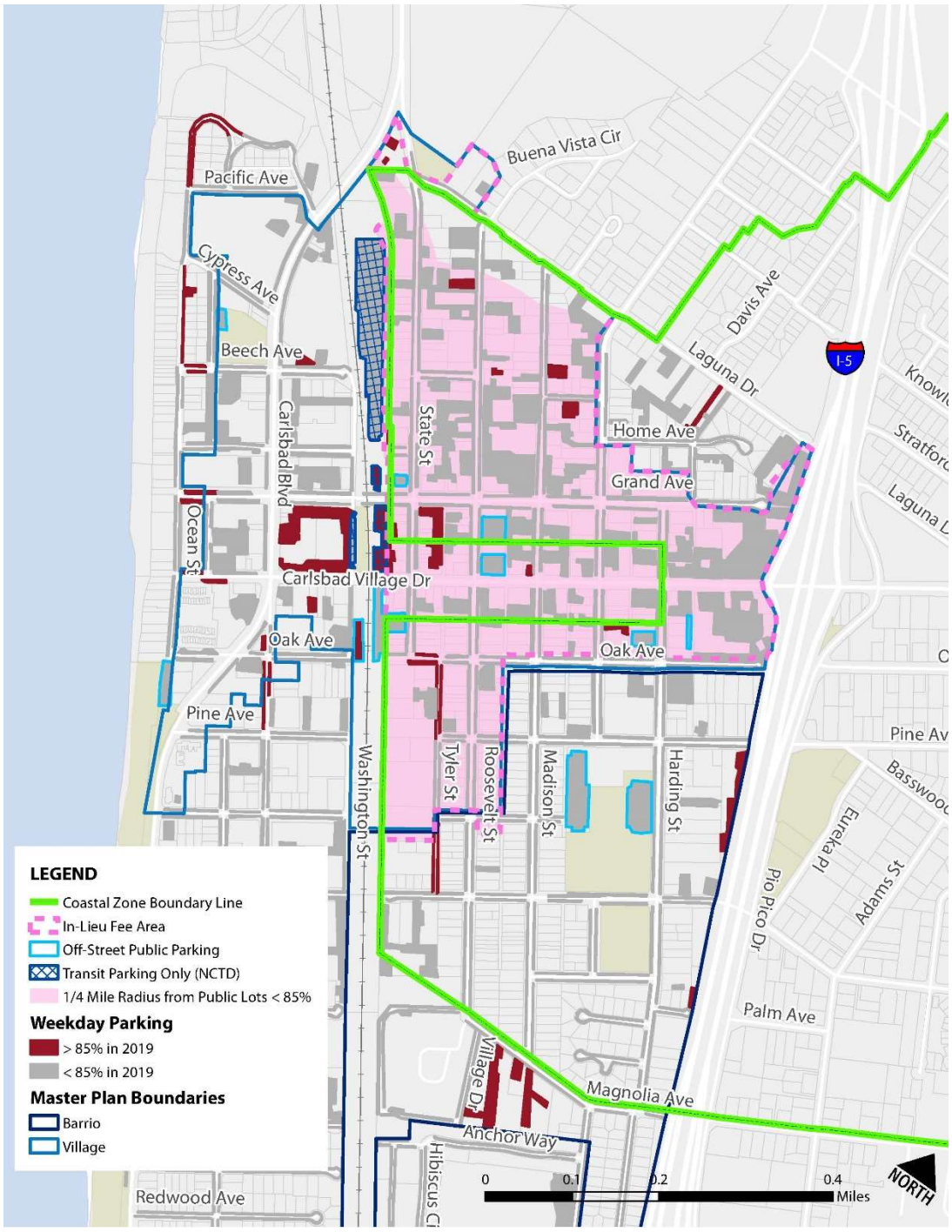
While this area does provide the greatest concentration of individual facilities experiencing utilization rates at or above the 85 percent threshold, there are available parking supplies within a comfortable walking distance. However, given the concentration of heightened demand within this area of interest, this area should continue to be monitored to ensure parking supplies remain available within tolerable walking distances. Should demand in this area for a particular type of parking such as public off-street exceed effective capacity, and appropriate alternative parking options are not available within a reasonable distance, parking management strategies such as those discussed in the Parking Management Plan may help to reduce or redistribute parking demands.

In-Lieu Fee Program Areas

The Village and Barrio Master Plan's Parking In-Lieu Fee Program allows developers to pay a fee in lieu of providing on-site parking. The fee can be used for development or maintenance of off-site shared or leased public parking. Non-residential uses eligible to participate in the program may satisfy up to 100 percent of their parking requirement through payment of the fee. Participation is subject to requirements and findings, including a provision where the uses must be within a defined area of the Master Plan and must be within a quarter mile of an off-street public parking lot with an occupancy under 85 percent.

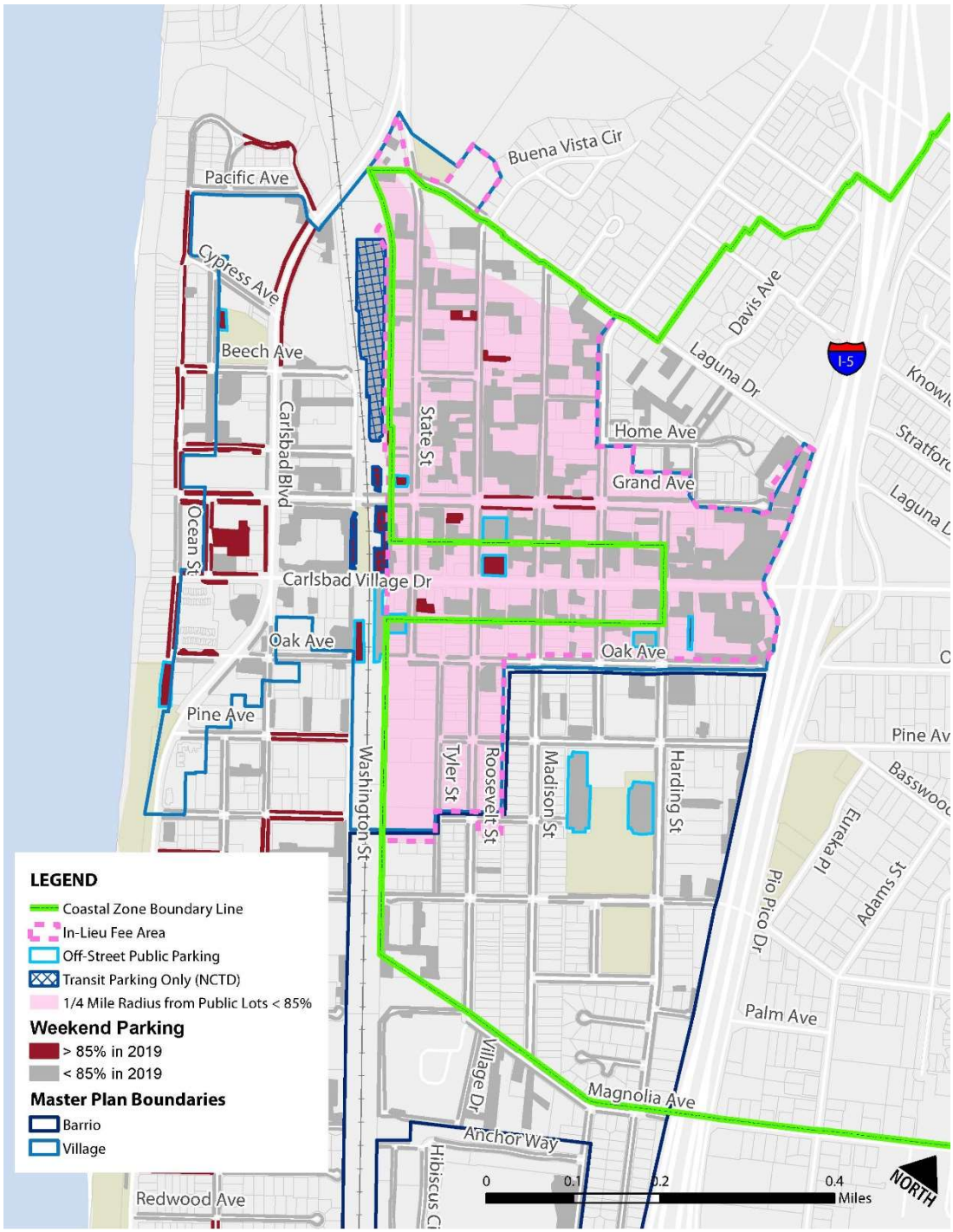
Figure 15 and **Figure 16** provide information to help determine eligibility and show that most parcels in the in-lieu fee area are within a quarter-mile of a public lot with average daily utilization under 85%. Complete information on the Parking In-Lieu Fee Program may be found in Section 2.6.6 and Table 2-4 of the Village and Barrio Master Plan. Further, eligibility to participate in the Parking In-Lieu Fee Program shall be verified with the city's Planning Division.

Figure 15: Parking In-Lieu Fee Program Information – August 2019 Weekday Parking



Note: Eligibility to participate in the Parking In-Lieu Fee Program shall be verified with the city's Planning Division.

Figure 16: Parking In-Lieu Fee Program Information – August 2019 Weekend Parking



Note: Eligibility to participate in the Parking In-Lieu Fee Program shall be verified with the city's Planning Division.

Conclusions

The August 2019 results show the peak to be during the weekend at 12:00 PM – 3:00 PM with an observed occupancy of 45 percent; a 1-point increase from the August 2018 weekend peak (44 percent at 3:00 PM – 6:00 PM). The weekday data also shows a decrease of 8 points with a peak occupancy of 41 percent, compared to 49 percent in August 2018.

After comparing the August 2018 to August 2019 weekday peak data for facilities with occupancies between 75 and 84 percent, the 2019 data experienced a decrease in occupied spaces within this range from the 2018 data. For the weekday peak, August 2019 data observed 14 facilities that account for 3 percent of the system's total parking supply (394 spaces) compared to 21 facilities representing 9 percent of spaces in 2018.

During the August 2019 weekend peak, four percent of spaces within the parking system (17 facilities comprising of 453 spaces) experienced occupancies between 75 and 84 percent. This is a decrease from the 887 spaces observed to experience occupancies between 75 and 84 percent during the August 2018 weekend peak data. Even though these facilities have not reached the 85 percent threshold, they should be monitored for additional increases in demand.

The August 2019 peak data for both weekday and weekend were also analyzed and compared to the August 2018 weekday and weekend peak data for occupancies greater than 85 percent. The 2019 weekday data resulted in 34 facilities (7 percent of total spaces comprising of 849 spaces) with occupancies over 85 percent, which is a decrease in affected spaces compared to the August 2018 data. As for the weekend data, 2019 experienced 48 facilities at or above 85 percent occupied, representing 1,361 of the 11,496 total spaces, which is a 2-point increase (from ten percent to twelve percent) compared to August 2018. For the facilities that have reached or exceeded the 85 percent threshold, parking management strategies as outlined in the 2017 Parking Management Plan may be considered to redistribute parking demands for a more balanced experience for parking patrons. However, despite these localized pockets of demand, there were no areas without available supply in close proximity and within a comfortable walking distance at any time during August 2019 observations. The City should encourage the use of these underutilized parking facilities to help redistribute demands from the higher occupancy areas.

Along with the effective capacity threshold analysis, the sub-area analysis resulted in their own, yet similar conclusions after analyzing the data based on the various boundaries. The "Outside Master Plan" areas experienced the greatest demands in public off-street facilities during the

weekend 12:00 PM – 6:00 PM observations, and least demand in on-street facilities weekdays. In the Village area, some facilities observed higher occupancies than others, with some reaching and exceeding the 85 percent threshold. Although these higher occupancy, "more attractive" facilities may frustrate the search for available parking, the overall parking system within the Village area is underutilized and parking is available within a comfortable walking distance of all destinations.

The comparison of the data collected for July 2016, August 2018, and August 2019 suggests a stable demand for parking in the study area. This trend will be monitored in 2020 with additional parking management strategies considered to manage high-demand areas as necessary and when appropriate.