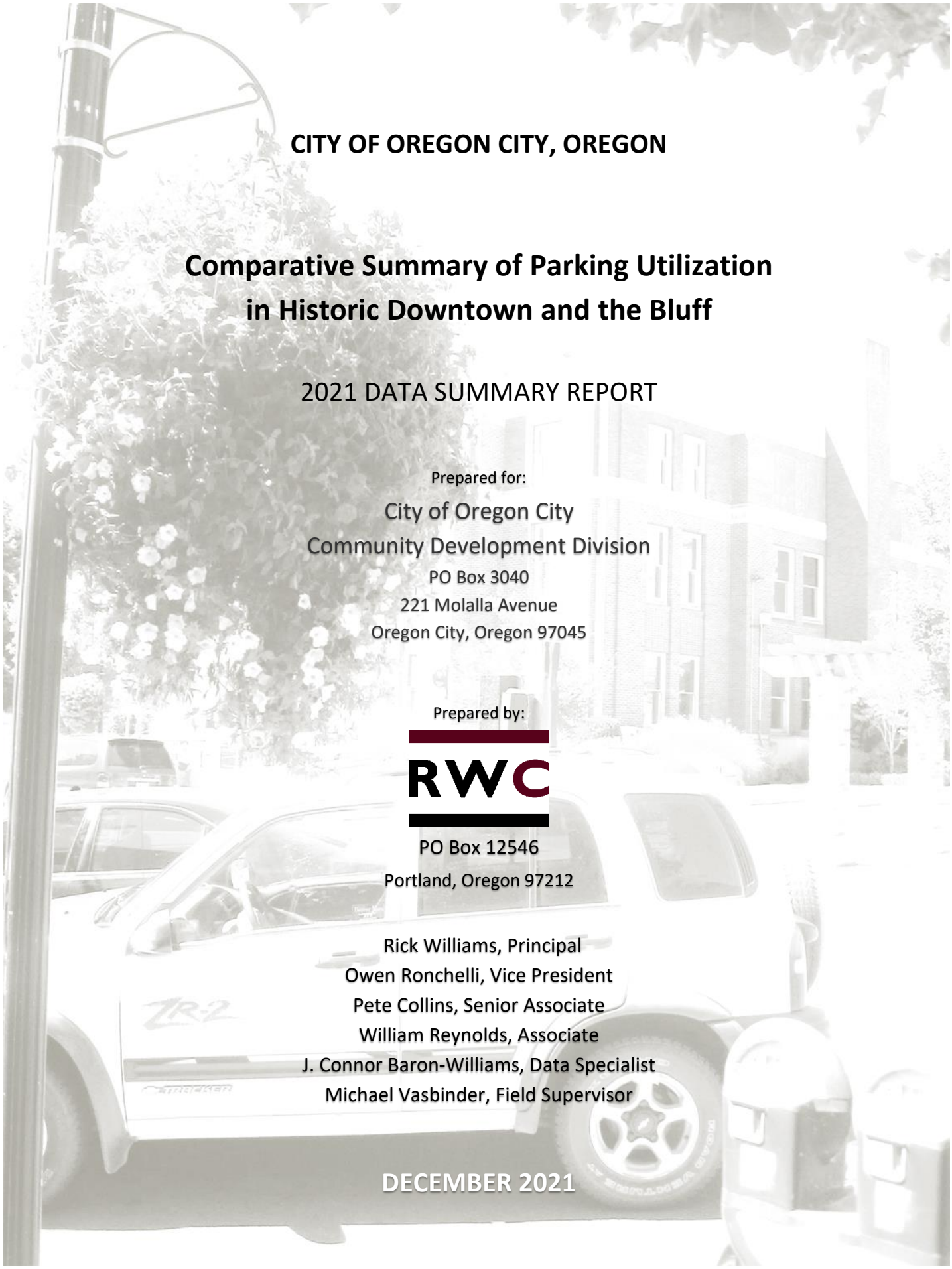

CITY OF OREGON CITY, OREGON

Comparative Summary of Parking Utilization in Historic Downtown and the Bluff

2021 DATA SUMMARY REPORT

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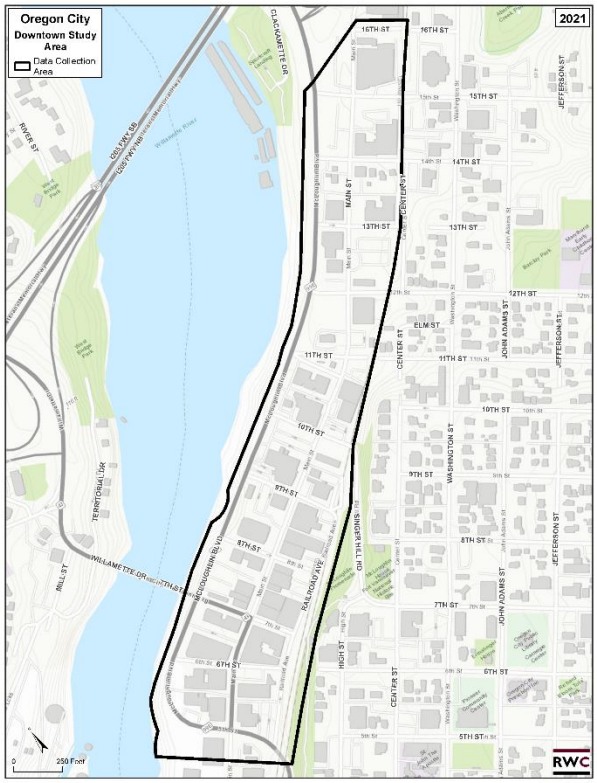
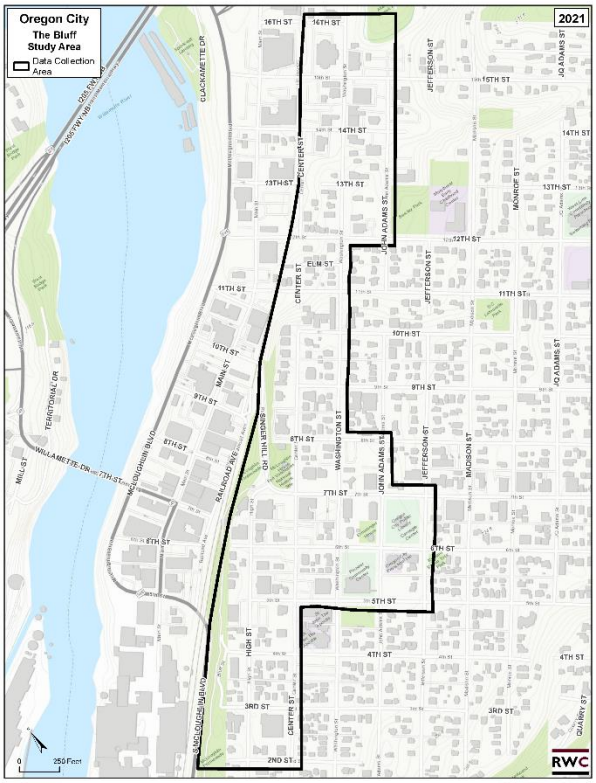
EXECUTIVE SUMMARY

A. *Background*

In July 2016, the City of Oregon City conducted a comprehensive study of the parking supply, concentrating on the historic downtown area bounded by the Willamette River to the northwest, 16th Street to the northeast, Railroad Avenue, and the Bluff to the southeast, and McLoughlin Boulevard/Highway 99 to the southwest. Data was collected on a weekday and weekend (Saturday) to provide insight into weekly parking activity. No data was collected on the Bluff in 2016.



2021 Downtown Study Boundary

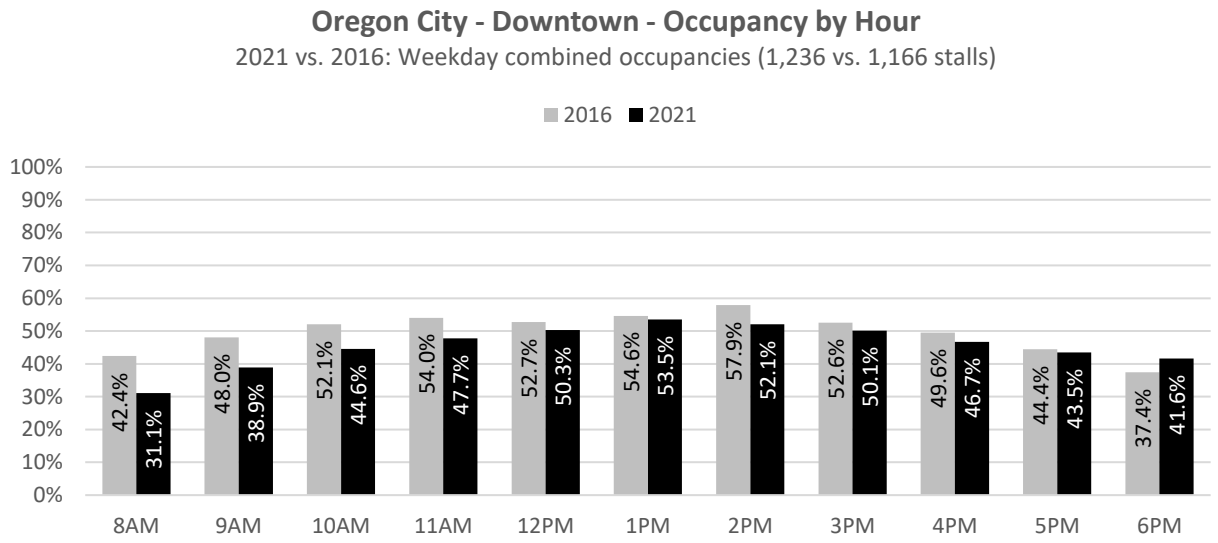


2021 Bluff Study Boundary

In September 2021, Rick Williams Consulting (RWC) updated the 2016 study, concentrating on the same historic downtown area (extending slightly farther to the southwest) as well as the Bluff, bounded by Center Street, Railroad Avenue, and McLoughlin Blvd to the northwest, 16th Street to the northeast, John Adams, Washington, Jefferson, and Center Streets to the southeast, and 12th, 5th, and 2nd Streets to the southwest (see graphics above). Data was collected on a weekday (Thursday) and weekend (Saturday) to provide a comparative to 2016's downtown parking activity.

This report summarizes the findings of the 2021 data collection and compares system utilization and performance between the 2016 and 2021 studies. As Bluff data was not collected in 2016, data for the Bluff is comparative between the 2021 weekday data and the 2021 weekend data.

B. *Comparative Weekday Findings: DOWNTOWN Parking Supply – 2021 vs.* 2016



On average, over the course of an 11-hour study day, the combined parking supply's occupancies in the downtown study area have decreased by over four (4) percentage points. This accounts for an hourly average of approximately 51 fewer vehicles occupying parking stalls on the weekday. [NOTE: Combined occupancy includes all on and off-street parking sampled within the study area.]

On-street parking

The on-street parking supply increased from 408 stalls in 2016, to 465 stalls in 2021, an increase of 57 stalls (14%). Peak hour occupancies have decreased from 66.2% to 60.0%, a significant decrease of about six percentage points (see table below). In 2016, the peak hour was from 2:00 PM to 3:00 PM, while in 2021, it was from 1:00 PM to 2:00 PM.

	Stall Type	Stalls	Peak Hour	Peak Occupancy	Stalls Empty
Downtown	Combined Supply Studied[1]	**1,236 (2021)** 1,166 (2016)	**1:00 PM - 2:00 PM** 2:00 PM - 3:00 PM	**53.5%** 57.9%	**573** 491
	On-Street Supply Studied	**465** 408	**1:00 PM - 2:00 PM** 2:00 PM - 3:00 PM	**60.0%** 66.2%	**185** 138
	Off-Street Supply Studied[2]	**771** 758	**2:00 PM - 3:00 PM** 2:00 PM - 3:00 PM	**50.7%** 53.4%	**380** 353

At the peak hour (2021) there are 185 stalls empty on the weekday, an increase of 45 empty stalls when compared to 2016 (138). This change may be due to increasing the size of the study boundary in 2021 and/or effects of the COVID-19 environment.

[1] When extrapolated to the total combined Downtown parking supply (1,268 stalls), the weekday peak hour (1:00 PM) leaves approximately 590 stalls available.

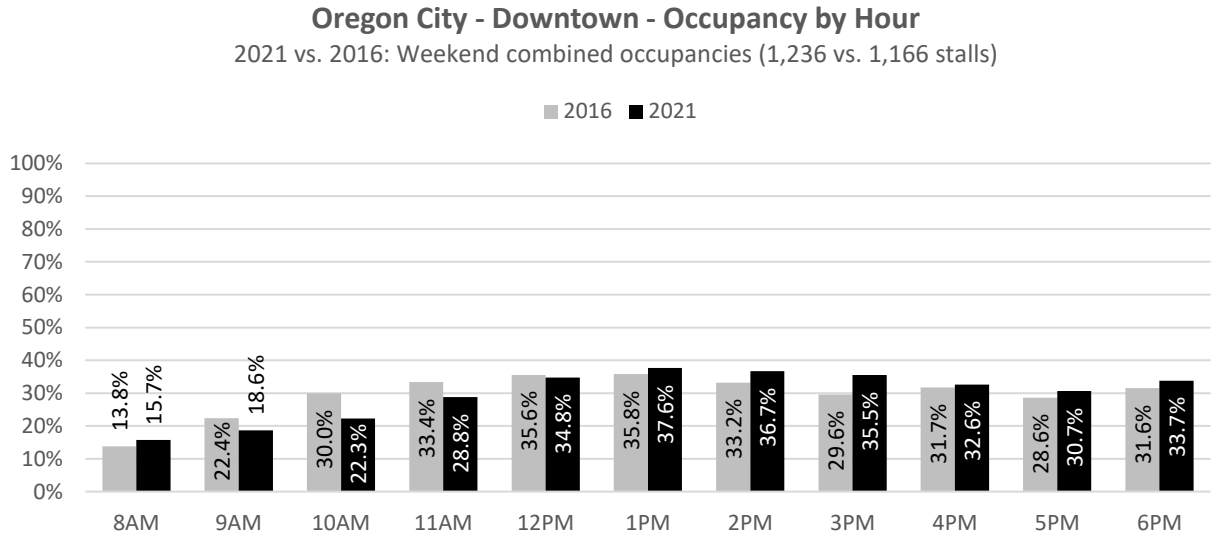
[2] When extrapolated to the total off-street Downtown parking supply (803 stalls), the weekday peak hour (2:00 PM) leaves approximately 396 stalls available.

Off-street parking

The off-street parking supply increased from 758 stalls in 2016 to 803 in 2021 (771 of which were studied), an increase of 45 stalls (5.9%). Peak hour occupancies have slightly decreased from 53.4% (2016) to 50.7% (see table above). In 2021, there were 380 empty stalls at the peak hour, compared to 353 in 2016. As in 2016, there is a large supply of empty off-street stalls that could be used to reduce constraints in the on-street system.

*More detailed analysis of the on- and off-street supply is provided in **Sections V** and **VI**.*

C. *Comparative Weekend Findings: DOWNTOWN parking supply – 2021 vs.* 2016



On average, over the course of an 11-hour study day, the combined parking supply's weekend occupancies have close to an even split of percentage points increased and decreased. Most of the afternoon (1:00 PM to 7:00 PM) showed an hourly average increase of almost three (3) percentage points in 2021, while the first half of the day showed an hourly average decrease of exactly three (3) percentage points. This accounts for an hourly average of approximately 37 fewer vehicles occupying parking stalls in the first half of the day and 37 more vehicles occupying parking stalls in the second half of the day. For the most part, weekend activity in the combined supply has held steady between the two study years.

On-street parking

Weekend peak hour occupancies have decreased slightly from 59.5% to 57.8%, both of which are less than peak hour occupancies on a weekday (see weekday table above). In 2016 and 2021, the peak hour was from 1:00 PM to 2:00 PM.

	Stall Type	Stalls	Peak Hour	Peak Occupancy	Stalls Available
Downtown	Combined Supply Studied[3]	**1,236 (2021)** 1,166 (2016)	**1:00 PM - 2:00 PM** 1:00 PM - 2:00 PM	**37.6%** 35.8%	**769** 742
	On-Street Supply Studied	**465** 408	**1:00 PM - 2:00 PM** 1:00 PM - 2:00 PM	**57.8%** 59.5%	**195** 161
	Off-Street Supply Studied[4]	**771** 758	**2:00 PM - 3:00 PM** 12:00 PM - 1:00 PM	**27.0%** 25.5%	**563** 565

At the peak hour (2021) there are 195 stalls empty on the weekend, an increase of 34 empty stalls when compared to 2016 (161). As with the weekday, this change may be due to increasing the size of the study boundary in 2021 and/or effects of the COVID-19 environment.

Off-street parking

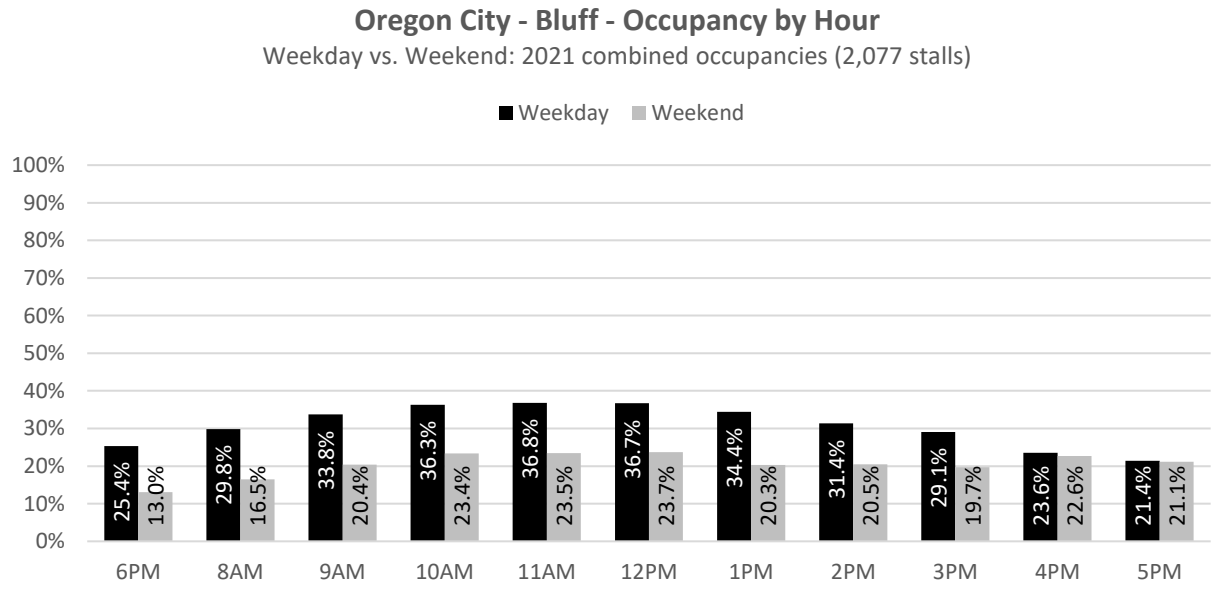
Peak hour occupancies have increased slightly from 25.5% to 27.0%In 2021, there were 563 empty stalls at the peak hour, compared to 565 in 2016. In addition, this peak is only about half that of the weekday peak hour occupancy (50.7%). As in 2016, there continues to be a substantial supply of empty off-street stalls that could be used to reduce any constraints in the on-street system.

*More detailed analysis of the on- and off-street supply is provided in **Sections VII** and **VIII.***

[3] When extrapolated to the total combined Downtown parking supply (1,268 stalls), the weekend peak hour (1:00 PM) leaves approximately 791 stalls available.

[4] When extrapolated to the total off-street Downtown parking supply (803 stalls), the weekend peak hour (2:00 PM) leaves approximately 586 stalls available.

D. *2021 Findings: BLUFF parking supply – Weekday vs.* Weekend*



*Unlike the downtown (which had 2016 data to compare to), Bluff data is only available for 2021. The analysis in this study area compares 2021 weekday to 2021 weekend parking activity.

On average, the Bluff's combined parking supply occupancies decreased by an average of 11 percentage points from weekday to weekend across the survey day. The 11 hour average occupancy for the weekday is 31% versus 20% on the weekend.

At the peak hour, there are 1,303 empty parking stalls on the weekday and 1,588 stalls on the weekend in the overall combined supply. This is a significant supply of unused parking, both on and off-street, regardless of the study day.

On-street parking

During the weekday and weekend data collections, both peak hours occurred from 12:00 PM to 1:00 PM. Peak hour occupancies from weekday to weekend decreased from 42.8% to 31.6%, a significant decrease (see table below). At the peak hour, empty parking stalls range from 495 (weekday) to 589 stalls (weekend). This unused supply indicates there is adequate capacity to absorb new trips in the study area without significant impacts to current user access or traffic volume.

	Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls
Bluff	Combined Supply Studied[5]	2,077 (2021)	**12:00 PM - 1:00 PM** 1:00 PM - 2:00 PM	**36.8%** 23.7%	**1,303** 1,588
	On-Street Supply Studied	837	**12:00 PM - 1:00 PM** 12:00 PM - 1:00 PM	**42.8%** 31.6%	**495** 589
	Off-Street Supply Studied[6]	1,240	**1:00 PM - 2:00 PM** 5:00 PM - 6:00 PM	**35.4%** 21.9%	**791** 972

Off-street parking

Peak hour occupancies from weekday to weekend decreased from 35.4% to 21.9%, a significant decrease (see table above). During the weekday, there were 791 empty stalls at the peak hour, compared to 972 during the weekend. This accounts for an additional 181 available parking stalls during the weekend peak hour. The weekend peak hour occurred from 5:00 PM to 6:00 PM, whereas the weekday peak hour occurred from 1:00 PM to 2:00 PM. The weekend peak hour (early evening) may suggest residents returning to their homes, while the weekday peak hour is more typical to commercial/visitor trips.

As with the on-street system in the Bluff area, there is a significant amount of unused parking in the off-street parking inventory/supply. Opportunities to capture portions of this supply to contribute to employee/residential parking demand and to integrate with the on-street system to manage access, growth, and congestion more efficiently should be explored.

*More detailed analysis of the on- and off-street supply is provided in **Sections XI** and **XII.***

[5] When extrapolated to the total combined Bluff parking supply (2,203 stalls), the weekday peak hour (12:00 PM) leaves approximately 1,392 stalls available while the weekend peak hour (1:00 PM) leaves 1,681.

[6] When extrapolated to the total off-street Bluff parking supply (1,366 stalls), the weekday peak hour (1:00 PM) leaves approximately 882 stalls available while the weekend peak hour (5:00 PM) leaves 1,067.

E. *Summary*

The downtown combined (on and off-street systems) occupancy decreased (57.9% to 53.5%) from 2016 to 2021. Since 2016, the downtown has added more permitted and No Limit (unlimited time stay) stalls on-street, resulting in a weaker turnover rate with vehicles parking slightly longer. Noting a decrease in peak hour on-street occupancies from 66.2% to 60.0% during the weekday, the number of vehicle trips to downtown has also dropped from 1,382 to 1,189. However, despite a decrease in the weekend peak hour occupancies from 59.5% to 57.8%, the number of vehicle trips to downtown during the weekend has slightly increased from 1,081 to 1,111, a positive sign of economic growth.

The dynamics of parking in the Bluff, from weekday to weekend, show that parking is readily available with very low peak occupancies. The Bluff's combined (on and off-street systems) occupancy peaked (36.8%) during the weekday as compared to the weekend peak (23.7%).

Overall, the dynamics of parking in downtown Oregon City have remained similar from 2016 to 2021. Peak hour occupancies in the downtown study area remain moderate, while demand in the Bluff area is low. Currently, parking is readily available throughout most of the downtown and on the Bluff.

I. BACKGROUND

In 2008, the City conducted and extensive data collection effort in the downtown and areas on the Bluff. That effort informed the development of the Downtown Oregon City Parking Management Plan in 2009, which implemented a range of programs to improve the parking system, prioritizing uses, moving employees to off-street locations, and refining permit and pricing systems. In 2016, the City of Oregon City conducted a comprehensive data collection effort *focused on the downtown* to evaluate changes and trends in parking activity that had occurred in the downtown since the 2008 data effort. Data related to the Bluff area was not collected in 2016.

In 2021, Rick Williams Consulting (RWC) was retained to replicate the 2016 study methodology for a slightly expanded downtown study area, specifically the area bounded by the Willamette River to the northwest, 16th Street to the northeast, Railroad Avenue, and the Bluff to the southeast, and McLoughlin Boulevard/Highway 99 to the southwest. In addition, the 2021 study included Oregon City's Bluff, bounded by Center Street, Railroad Avenue, and McLoughlin Blvd to the northwest, 16th Street to the northeast, John Adams, Washington, Jefferson, and Center Streets to the southeast, and 12th, 5th, and 2nd Streets to the southwest. For the downtown, the 2021 study provides updated information on how the system is performing and analyzes changes over the last four years. For the Bluff, the 2021 study establishes a new baseline for measuring parking activity in this area and as a mean to inform parking management moving forward.

Data from 2016 and 2021 was examined to develop a comparative summary of the two studies. Weekday and weekend data from 2021 in downtown are compared to their respective days in 2016. Weekday data from 2021 in the Bluff is compared weekend data from 2021 in the Bluff.

The findings presented herein can inform recommendations to maximize the efficiency of the current parking supply and to plan strategically for the future.

[NOTE: It is acknowledged that the findings of the 2021 study are influenced by the impacts of the COVID-19 pandemic. Input from the City, consultant, and the Oregon City TDM Work Group, led to the decision to move forward with data collection in 2021, to inform near- and mid-term decision making related to parking (and transportation demand management) as well as to establish a new baseline of data. Understanding what some call "the new normal" is important, as data established now supports smarter strategies and provides a statistical view of how Oregon City has been affected by the pandemic. This will lead to strategies that are appropriate to a potentially new economic market, that support and sustain existing businesses, and attract new businesses and users to the downtown and Bluff.]

II. METHODOLOGY

To be consistent with 2016 data and ensure comparable results, the 2021 survey attempted to match the previous study area (downtown) as closely as possible, while also collecting data in the Bluff area. Unlike the 2016 effort, in which the City collected the data, RWC both inventoried the parking supply and conducted the data collection.[7]

A. Inventory

An updated inventory template for all parking in the downtown and Bluff study area was prepared in advance of data collection. On-street stalls were catalogued by time stay, off-street parking by location and land use type, and bicycle parking by structure type (see Appendix, section XIII, for structure examples). Differences between the 2016 and 2021 downtown parking inventories are summarized on pages 6 and 9.

B. On-Street Supply

Data collection took place on Saturday, September 18th, and Thursday, September 23rd, 2021. The survey days were selected in consultation with the City of Oregon City. The 2021 weekday occurred in the Fall, capturing local school pick-up/drop-off patterns. The 2016 data collection occurred in the summer (July 2016). The weather for the 2021 weekend survey was cloudy, in the mid-60s, while the weather for the 2021 weekday survey was partly sunny and in the mid-70s.

Both surveys involved hourly counts of occupied on-street parking stalls in the study area. RWC surveyors collected the license plate numbers of vehicles parked at each on-street parking stall over the-11-hour period from 8:00 AM to 7:00 PM. The survey represents a 100% sample of on-street parking in the study area.

C. Off-Street Supply

Off-street facilities were surveyed on the same days. Both public and privately owned facilities were categorized by block number and lot size and identified by tenant. A total of 803 off-street stalls were documented in 47 parking sites in downtown. A total of 1,366 off-street stalls were documented in 73 parking sites in the Bluff. Occupancy counts were conducted each hour over the course of the 11-hour survey day. Unlike the on-street system, license plates were not recorded. The off-street *inventory* represents a 100% sample of all off-street parking in both study areas. However, off-street data collection represented a 96% sample and a 91% sample of the off-street parking in downtown and the Bluff, respectively. See Appendix (page 60**)** for a breakout of all off-street lots.

[7] In 2016, the Downtown Oregon City Association (DOCA) led the data collection effort, using RWC's inventory. RWC provided technical assistance and training to the DOCA staff. RWC then analyzed all data collected by DOCA. This partnership with DOCA helped reduce overall project costs.

D. Bicycle Parking Supply

In addition to collecting vehicle parking data, surveyors also collected bicycle parking data. On the same days as the parking data collection efforts, surveyors recorded the number of bicycles parked at previously inventoried bicycle racks along their respective data collection routes. A capacity[8] of 61 and 64 legal bike parking locations were surveyed in downtown and the Bluff, respectively.

E. General Methodology Notes

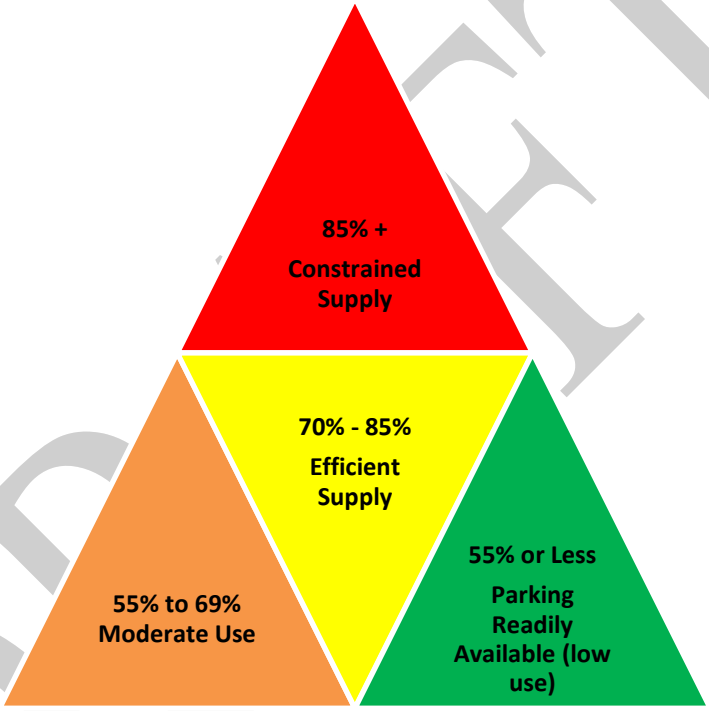
In 2021, parking data was gathered on both a weekday and weekend (Thursday, September 23rd and Saturday, September 18th). Data from both days was used to analyze differences in parking patterns on a typical weekday versus a typical weekend day. As no Bluff data was gathered in 2016, weekday Bluff data was compared to weekend Bluff data in the 2021 study.

[8] Capacity in this regard estimates the total number of bikes that can efficiently and safely parked within a certain type of rack. For example, if there is one staple rack, it has the *capacity* to park 2 bicycles.

III. MEASURING PERFORMANCE

Parking is considered to be constrained when 85% or more of the available supply is routinely occupied during the peak hour. In a constrained system, finding an available spot is difficult, especially for infrequent users such as customers and visitors. This can cause frustration and negatively affect perceptions of the downtown. Continued constraint can make it difficult to absorb and attract new growth, or to manage fluctuations in demand—for example, seasonal or event-based spikes.

Occupancy rates of 55% or less indicate that parking is readily available. While availability may be high, this may also indicate a volume of traffic inadequate to support active and vital businesses.



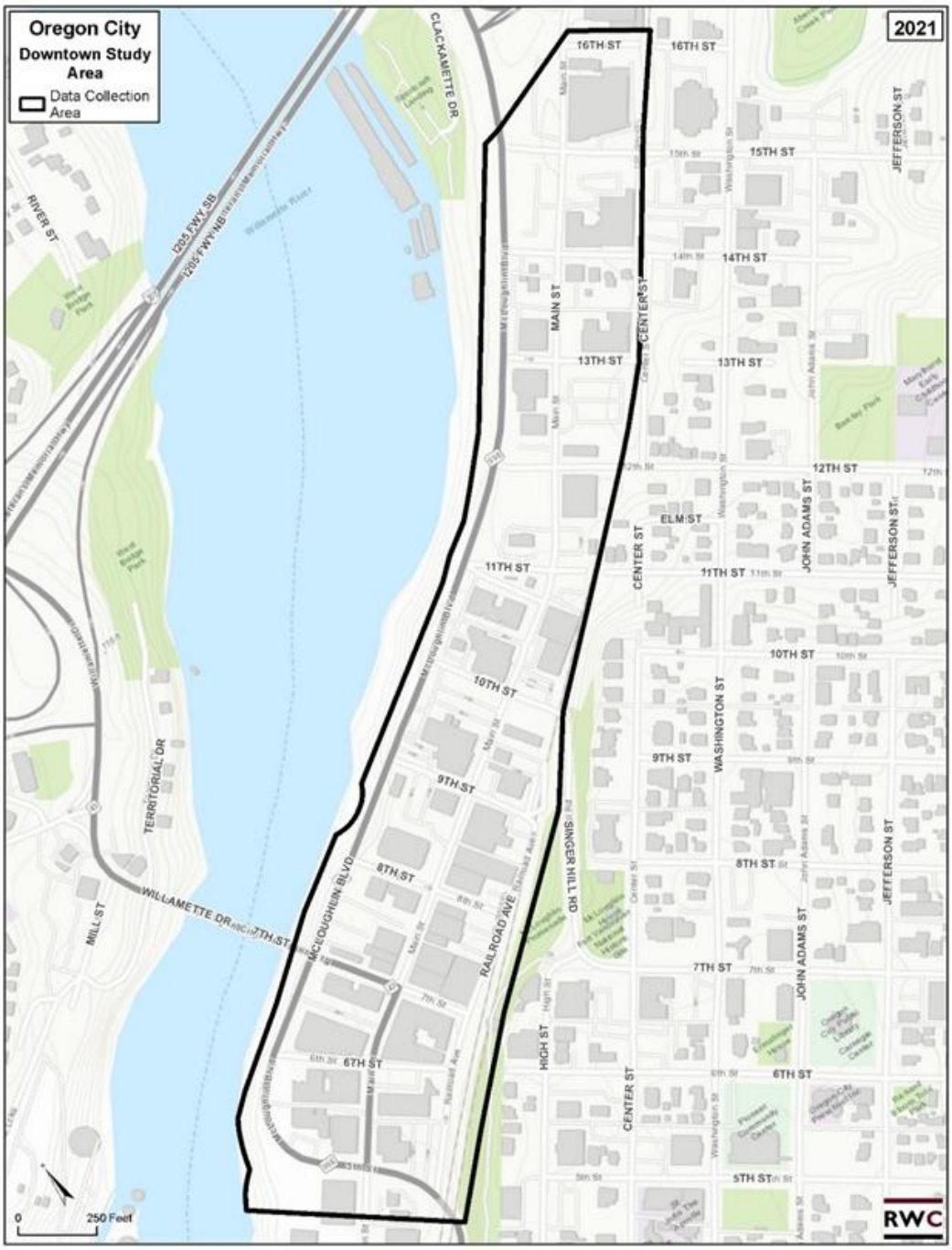
Occupancy rates between these two thresholds indicate either moderate (55% to 69%) or efficient (70% to 85%) use. An efficient supply of parking shows active use but little constraint that would create difficulty for users. Efficient use supports vital ground-level businesses and business growth, is attractive to potential new users, and can respond to routine fluctuations.

RWC's analysis of parking in Oregon City uses these industry-based categories of performance activity to evaluate the performance of the system.

IV. DOWNTOWN – STUDY AREA AND PARKING SUPPLY

The study area was determined in the initial scoping process by the City of Oregon City and RWC. The area is bounded by the Willamette River to the northwest, 16th Street to the northeast, Railroad Avenue, and the Bluff to the southeast, and McLoughlin Boulevard/Highway 99 to the southwest.
See **Figure A**, below.

Figure A: Downtown Parking Study Area



A. On-Street Inventory

Table 1 compares the total parking inventory in 2021 and 2016. As the table indicates, a total of 465 stalls were documented in downtown's on-street system in 2021. Of these, 252 stalls are metered, and 213 stalls are unmetered (signed or no sign visible).

Table 1: Downtown On-Street Parking Inventory (**2021** vs. 2016)

Stall Type	All		Metered[9]		Unmetered		Pay Station	Single Head
	Stalls	% Total	Stalls	% Total	Stalls	% Total	Stalls	Stalls
On-Street Supply Studied	**465** 408	**100.0%** 100.0%	**252** 255	**54.2%** 62.5%	**213** 153	**45.8%** 37.5%	**97** na	**155** na
2 Hours	**261** 263	**56.1%** 64.5%	**206** 227	**44.3%** 55.6%	**55** 36	**11.8%** 8.8%	**95** na	**111** na
4 Hours	**22** 21	**4.7%** 5.1%	**14** -	**3.0%** -	**8** 21	**1.7%** 5.1%	**-** -	**14** -
8 Hours	**29** 28	**6.2%** 6.9%	**29** 28	**6.2%** 6.9%	**-** -	**-** -	**-** na	**29** na
ADA accessible	**6** 4	**1.3%** 1.0%	**3** -	**< 1%** -	**3** 4	**< 1%** 1.0%	**2** -	**1** -
Authorized Vehicle	**1** -	**< 1%** -	**-** -	**-** -	**1** -	**< 1%** -	**-** -	**-** -
Blue Permit	**25** 30	**5.4%** 7.4%	**-** -	**-** -	**25** 30	**5.4%** 7.4%	**-** -	**-** -
Courthouse Permit	**12** -	**2.6%** -	**-** -	**-** -	**12** -	**2.6%** -	**-** -	**-** -
Green Permit	**24** 9	**5.2%** 2.2%	**-** -	**-** -	**24** 9	**5.2%** 2.2%	**-** -	**-** -
Purple Permit	**24** 23	**5.2%** 5.6%	**-** -	**-** -	**24** 23	**5.2%** 5.6%	**-** -	**-** -
Red Permit	**24** 30	**5.2%** 7.3%	**-** -	**-** -	**24** 30	**5.2%** 7.3%	**-** -	**-** -
Yellow Permit	**10** -	**2.2%** -	**-** -	**-** -	**10** -	**2.2%** -	**-** -	**-** -
No Limit	**27** -	**5.8%** -	**-** -	**-** -	**27** -	**5.8%** -	**-** -	**-** -

Since 2016, the measured on-street supply has grown by 57 stalls, most all of that in providing long-term parking access. Notable changes between survey years are an increase in permit only stalls and the addition of No Limit parking. In 2016, 92 stalls were dedicated to these unlimited time-stay uses; in

[9] When the City inventoried the on-street parking for the previous study, pay stations vs. single head meters were not specified so they are listed as "na" (Not Applicable).

2021, 146 stalls fall into these categories. While these changes allow for more permit users and long-term visitors, the number of 2 Hour stalls has barely changed (two fewer stalls), leaving short-term visitor parking opportunities almost unaffected.

Overall, changes in the format of the on-street supply provide just over half the supply (56.1%) to traditional short-term parkers (2 Hour stalls). In 2016, 64.5% of the supply was dedicated to the short-term users. It appears that growth in the inventory has shifted to long-term users. This may be a function of the larger 2021 study zone and the location of stalls added with the expansion of the study zone. Nonetheless, Oregon City's proportional allocation of on-street parking to longer-term uses (i.e., permits) is not typical of Main Street downtowns focused on visitor access and growth. This finding is similar to that made in the 2016 study.

B. Off-Street Inventory

A total of 47 off-street sites with 803 parking stalls were inventoried in downtown. Of this system-wide supply, 42 sites with 771 parking stalls were surveyed during the study days (a 96% sample size). The off-street sites that were not collected typically are not important to the parking supply as they can be very small, restricted, or vacant properties. This significant sample size of the off-street parking supply ensures clear insight into the weekday and weekend parking activity in 2021. See **Figure B**, (next page).

Figure B: Downtown Off-Street Facilities (Collected vs. Not Collected)

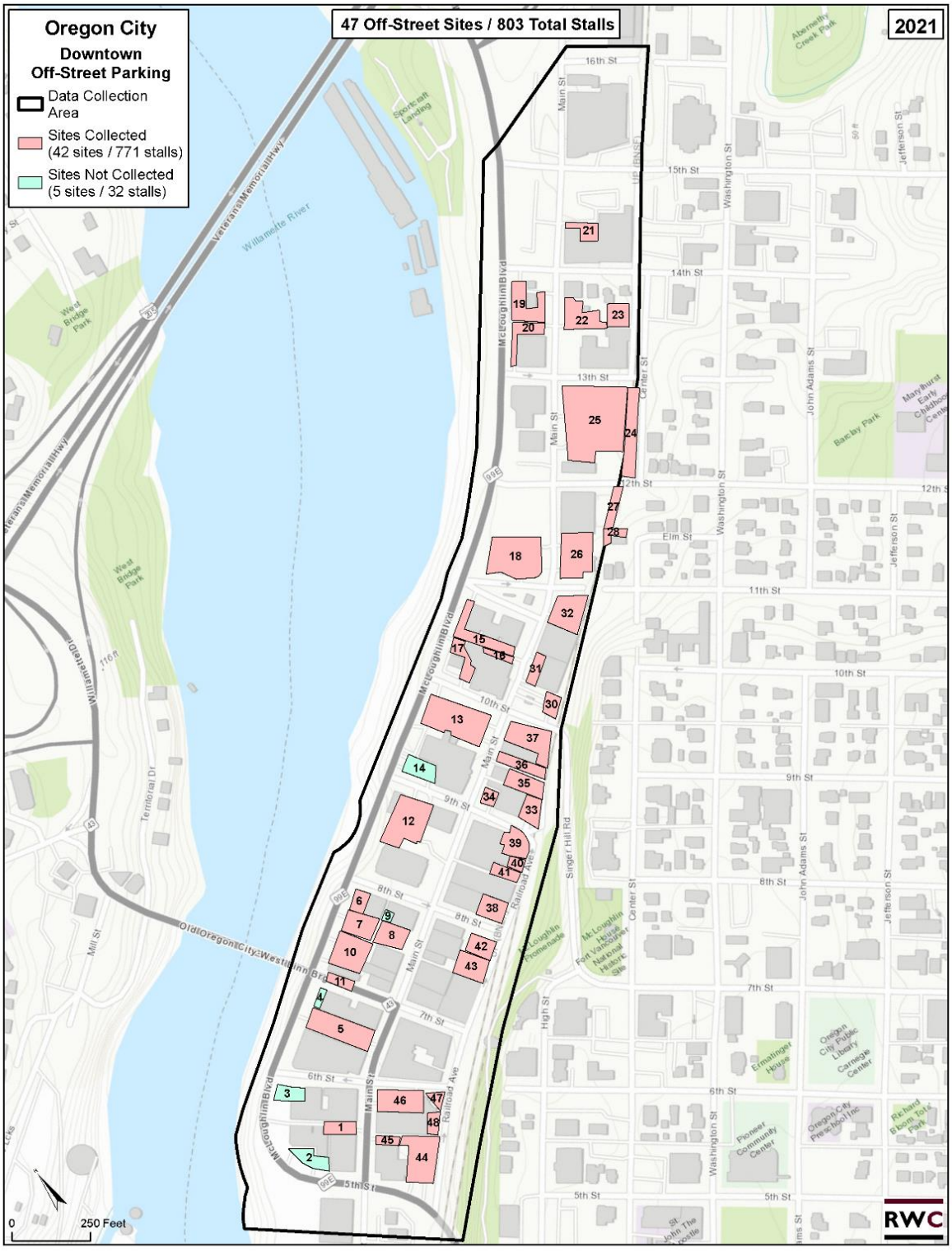


Table 2 compares the total off-street parking inventory in 2021 and 2016. As the table indicates, a total of 803 stalls are located off-street in 47 unique sites. Of these sites, most of the supply is dedicated to Retail (178 stalls), Office (132 stalls), and Mixed Use (122 stalls) land use types. Public, Reserved, Residential, and Service use types accounted for the lowest number of sites and parking stalls. However, the one Public site (Lot 25) has 93 stalls (11.6% of the supply).

Table 2: Downtown Off-Street Parking Inventory by Land Use Type (**2021** vs. 2016)

Use Type	Sites	% Total	Stalls	% Total
Off-Street Supply	**47** 40	**100.0%** 100.0%	**803** 758	**100.0%** 100.0%
Mixed Use	**5** 1	**10.6%** 2.5%	**122** 42	**15.2%** 5.5%
Office	**7** 8	**14.9%** 20.0%	**132** 211	**16.4%** 27.8%
Permit	**6** 5	**12.8%** 12.5%	**85** 95	**10.6%** 12.5%
Private	**4** 14	**8.5%** 35.0%	**111** 198	**13.8%** 26.1%
Public	**1** 1	**2.1%** 2.5%	**93** 92	**11.6%** 12.1%
Reserved	**2** -	**4.3%** -	**45** -	**5.6%** -
Residential	**1** -	**2.1%** -	**5** -	**< 1%** -
Retail	**17** 11	**36.2%** 27.5%	**178** 120	**22.2%** 15.8%
Service	**1** -	**2.1%** -	**3** -	**< 1%** -
Undesignated	**3** -	**6.4%** -	**29** -	**3.6%** -

C. Bicycle Inventory

A total of 19 locations were inventoried for bicycle parking in downtown, accounting for 100% of the supply. Of this system-wide supply, 16 locations had Staple type parking (50 bike capacity) and three (3) had Wave type parking (11 bike capacity). See **Figure C** (next page).

Figure C: Downtown Bicycle Parking

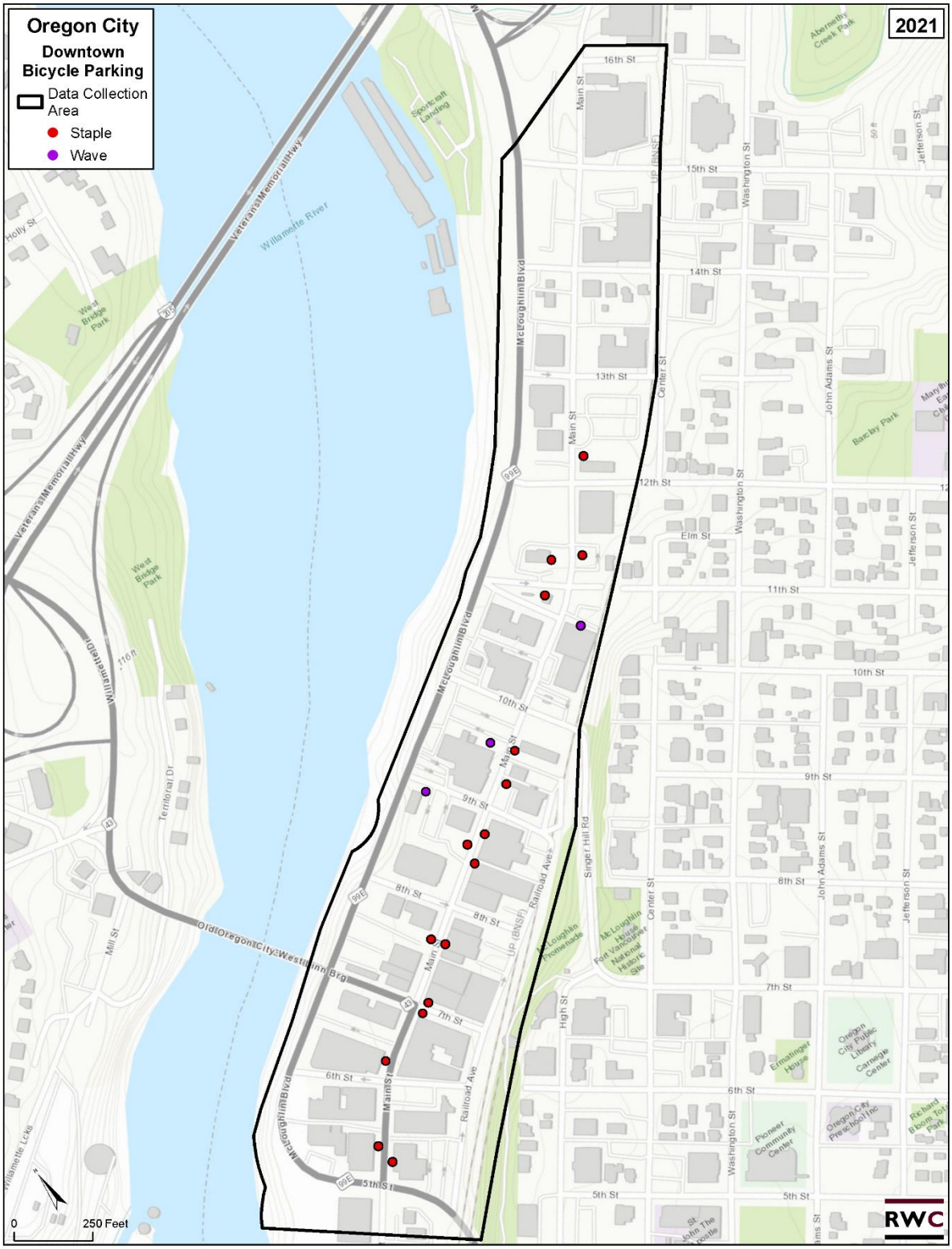


Table 3 illustrates a breakout of the bicycle capacities and structure types in downtown. As the table indicates, a total of 28 bicycle structures with a capacity to fit 61 bicycles were inventoried in downtown. Of this system-wide supply, 25 were of the Staple type (50 bike capacity) and three (3) were of the Wave type (11 bike capacity).

Table 3: Downtown Bicycle Parking Inventory by Structure Type

Structure Type	Structures	% Total	Capacity	% Total
Bicycle Parking Supply	**28**	**100.0%**	**61**	**100.0%**
Staple	25	89.3%	50	82.0%
Wave	3	10.7%	11	18.0%

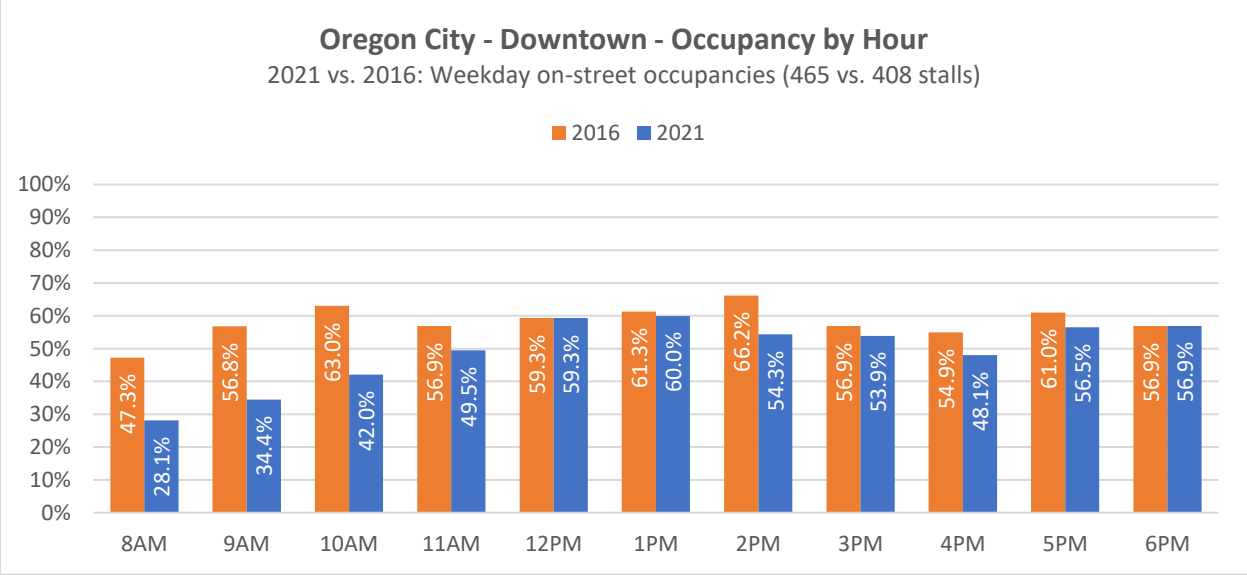
V. DOWNTOWN – WEEKDAY CHARACTERISTICS OF ON-STREET SUPPLY

A. Occupancy – Hourly Distribution (2021 vs. 2016 Weekday)

Figure D compares weekday hourly occupancies between the 2021 and 2016 surveys.

- The 2021 peak hour is from 1:00 PM to 2:00 PM, when occupancies reach 60.0% (6.2% lower than the 2016 peak hour, which occurred between 2:00 PM and 3:00 PM).
- 2016 hourly occupancies are higher in 9 of the 11 surveyed hours when compared to 2021. The 11 hour average of parking occupancy fell from 58.2% (2016) to 49.3% (2021).
- The largest sustained drop in occupancy performance (2021) occurs between 8:00 AM and 11:00 AM when contrasted to 2016, individual hourly decreases are as much as 20 percentage points.
- Both 2021 and 2016 show a small spike in the evenings after 4:00 PM, indicating that the downtown experiences a resurgence of activity at dinner time. The spike occurs earlier in 2016 (between 4:00 PM and 7:00 PM) than in 2021 (between 5:00 PM and 7:00 PM).

Figure D: Weekday Downtown On-Street Occupancy by Hour (2021 vs. 2016)



B. Peak Hour Occupancy – Heat Map (2021 vs 2016 – Weekday)

Figures E and **F** (below) illustrate the peak hour for the 2021 and 2016 weekday on-street surveys in a "heat map" format. Heat maps use color to show intensity of use by block face based on the diagram in **Section III** above.

2021

There are a total of 81 block faces in the 2021 study area. Twenty-four block faces, 30% of the total, do not allow parking (shown in brown on the heat map). This leaves 57 block faces where parking is allowed.

As **Figure E** illustrates, four (4) of the 57 block faces that allow parking (7%) are constrained during the weekday peak hour, shown in red on the heat map. These four constrained block faces are not clustered in any way, with adequate parking access available on nearby/adjacent block faces. Eight (8) of the 57 block faces (14%) fall within the efficient range of occupancy, orange on the heat map. The remaining block faces (78%) have low to moderate uses, 33 are green and 12 are yellow on the heat map.

2016

In contrast, **Figure F** provides the peak hour heat map from 2016. The number of block faces allowing parking totaled 48 in the study area. Of that total, 15 (31%) were constrained (red) during the weekday peak hour. Ten of these 15 constrained block faces were south of 10th Street. Even though peak-hour occupancy for the entire study area was a moderate 66%, it is likely that this area of the downtown felt quite constrained given the clustering of constrained (red) block faces. An additional seven (7) of the 48 block faces (14%) fell within the efficient range of occupancy (orange). The remaining block faces (54%) had low to moderate uses, 4 are green and 22 are yellow on the heat map.

Overall, the Figure **E** and **F** heat maps demonstrate a reduction in parking activity in the downtown, weekdays, when 2021 is compared to 2016.

Figure E: Weekday Downtown Peak Hour Heat Map (2021)

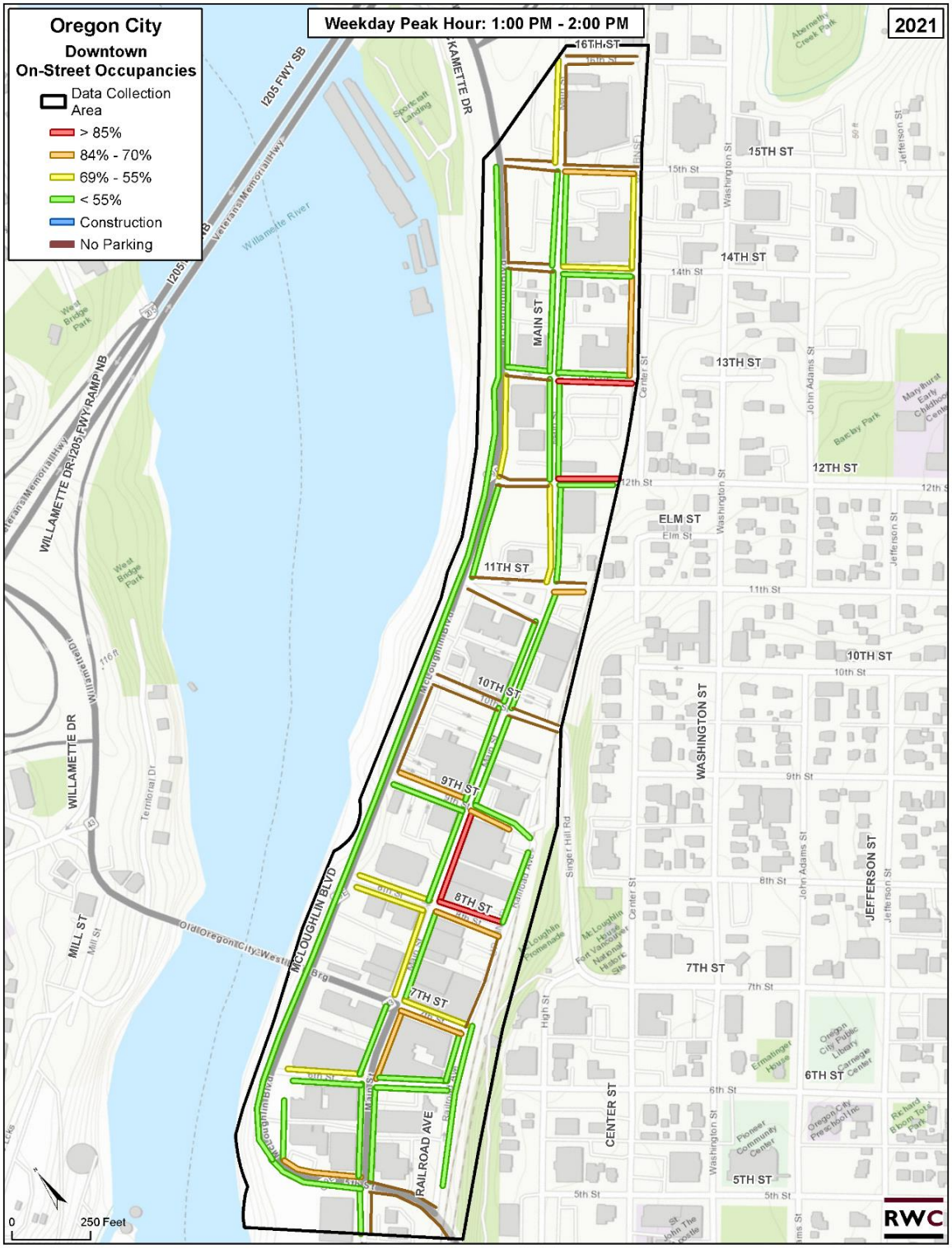
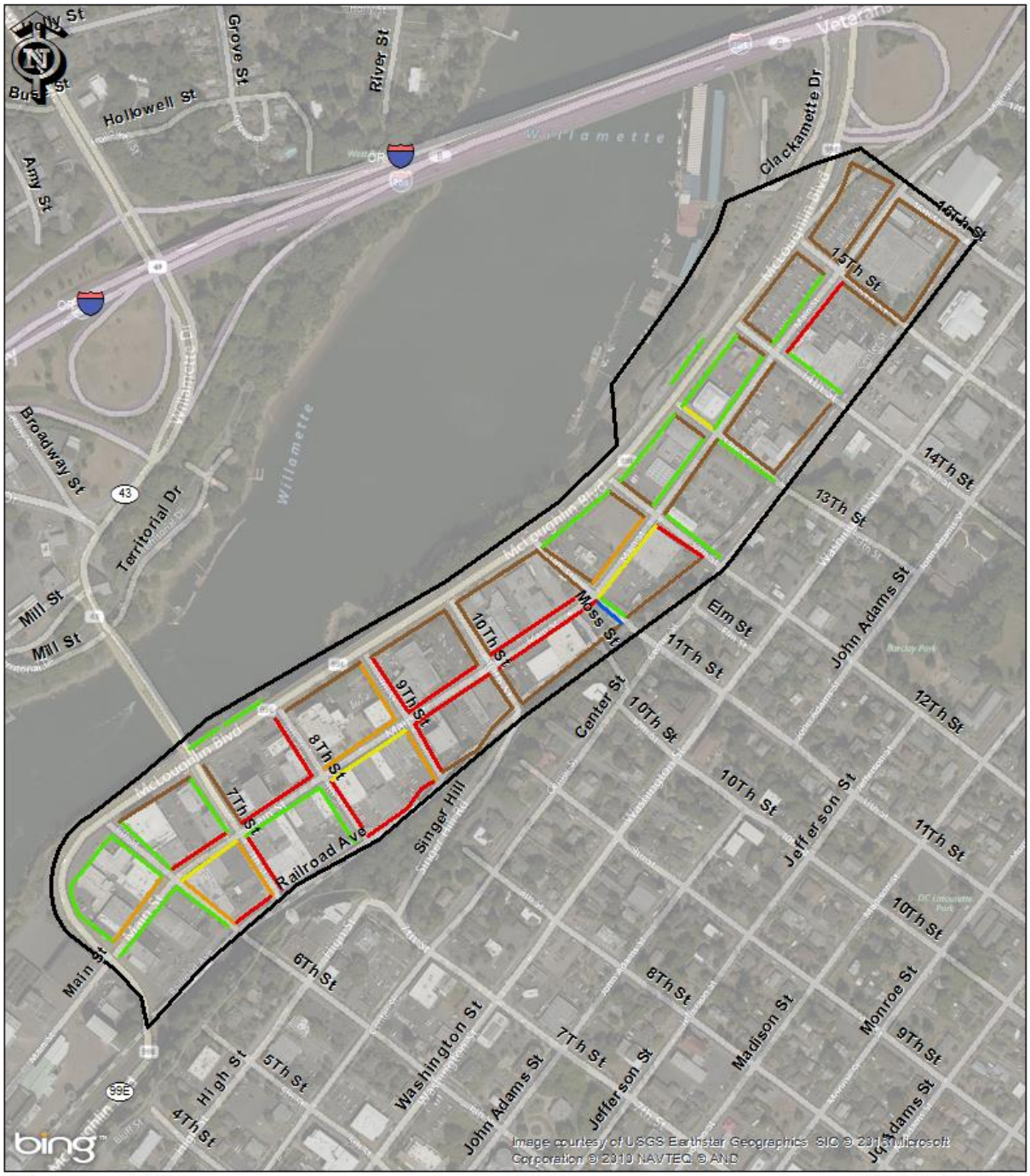


Figure F: Weekday Downtown Peak Hour Heat Map (2016)



C. Utilization and Other Use Characteristics

Table 4 (next page) summarizes 2021 parking use patterns for each stall type during a typical weekday in 2021 and 2016. Performance metrics include peak hour, peak occupancy, number of empty stalls, average length of stay, and violation rate.

- The **peak hour** for the on-street supply in 2021 was from 1:00 PM to 2:00 PM. The 2016 use peaks one hour later, from 2:00 PM to 3:00 PM.
- **Occupancy rates** were significantly lower in 2021 (60.0%) compared to 2016 (66.2%).
- The **average length of stay** for all on-street parking was 2 hours 2 minutes in 2021 (9 minutes longer than in 2016).
- **Violation rates** improved in 2021, reaching 8.0%, only slightly above industry best-practice targets of 5% to 7% (2.8% lower than in 2016).
- The average length of stay in 2-Hour metered stalls is 1:33 hours, indicating that these stalls are well calibrated to the needs of most customers.
- However, 2 Hour signed stalls show high violation rates of almost 39% (22.7% higher than in 2016), with an average stay of 3:05 hours. Given that 2 Hour metered stalls are currently at 86.2% occupied in the peak hour (indicating high demand); evaluating metering some or all 2 Hour signed stalls should be evaluated.
- Of the entire on-street supply (not including Authorized Vehicles due to having only one stall), only 2-Hour metered stalls are constrained (86%) during its peak hour, with Courthouse Permit stalls almost reaching 85% during its peak hour.[10]
- 4-Hour metered and signed stalls, and 8-Hour metered stalls show a shorter duration of stay on average, indicating an insufficient time stay based on user need. Reducing the number of these stalls by converting them to 2- or 3-Hour time stays may be appropriate. This is particularly true of the 8 Hour metered stalls, where time stays are under 2 hours (1:50 hours).
- The permit system is generally well utilized on weekdays, except for Green Permits, which peak at just over 40%. Reducing the number of theses stalls could allow for additional 2-Hour visitor stalls, particularly if permit demand could be transitioned to off-street location(s).
- The No Limit stalls have an average length of stay of 7 hours 14 minutes, skewing the overall supply's average to a longer duration. That these stalls are free and parked at 77.8%, they should be considered for, at minimum, permit parking (especially if they are not adjacent to visitor uses).

[10] This high occupancy is most likely because parking enforcement is not conducted on 2 Hour stalls from 6:00 PM to 7:00 PM.

Table 4: Weekday On-Street Parking Utilization Comparative (**2021 vs.** 2016)

Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls	Average Length of Stay[11]	Violation Rate
On-Street Supply Studied	**465** 408	**1:00 PM - 2:00 PM** 2:00 PM - 3:00 PM	**60.0%** 66.2%	**185** 138	**2:02 hours** 1:53 hours	**8.0%** 10.8%
2 Hours Metered	**206** 227	**6:00 PM - 7:00 PM** 5:00 PM - 6:00 PM	**86.2%** 78.0%	**28** 50	**1:33 hours** 1:33 hours	**7.2%** 11.4%
2 Hours Signed	**55** 36	**multiple** 1:00 PM - 2:00 PM	**45.5%** 47.2%	**30** 19	**3:05 hours** 2:04 hours	**38.8%** 16.1%
4 Hours Metered	**14** -	**12:00 PM - 1:00 PM** -	**35.7%** -	**9** -	**2:54 hours** -	**20.0%** -
4 Hours Signed	**8** 21	**12:00 PM - 1:00 PM** 2:00 PM - 3:00 PM	**75.0%** 57.1%	**2** 9	**2:20 hours** 2:26 hours	**11.1%** 17.9%
8 Hours Metered	**29** 28	**2:00 PM - 3:00 PM** 5:00 PM - 6:00 PM	**48.3%** 50.0%	**15** 14	**1:50 hours** 1:50 hours	**2.1%** 1.9%
ADA accessible	**6** 4	**1:00 PM - 3:00 PM** 1:00 PM - 2:00 PM	**50.0%** 100.0%	**3** -	**1:45 hours** 1:20 hours	**-** -
Authorized Vehicle	**1** -	**multiple** -	**100.0%** -	**-** -	**2:00 hours** -	**-** -
Blue Permit	**25** 30	**11:00 AM - 1:00 PM** 11:00 AM - 12:00 PM	**60.0%** 83.3%	**10** 5	**5:33 hours** 4:34 hours	**-** -
Courthouse Permit	**12** -	**10:00 AM - 11:00 AM** -	**83.3%** -	**2** -	**4:43 hours** -	**-** -
Green Permit	**24** 9	**11:00 AM - 12:00 PM** multiple	**41.7%** 88.9%	**14** 1	**5:11 hours** 2:13 hours	**-** -
Purple Permit	**24** 23	**1:00 PM - 2:00 PM** 9:00 AM - 12:00 PM	**75.0%** 52.2%	**6** 11	**4:17 hours** 7:12 hours	**-** -
Red Permit	**24** 30	**1:00 PM - 2:00 PM** multiple	**75.0%** 86.7%	**6** 4	**2:00 hours** 7:30 hours	**-** -
Yellow Permit	**10** -	**multiple** -	**80.0%** -	**2** -	**2:32 hours** -	**-** -
No Limit	**27** -	**3:00 PM - 4:00 PM** -	**77.8%** -	**6** -	**7:14 hours** -	**-** -

[11] Average duration is filtered to show non-permit users only (ADA accessible, No Limit, and all permit only stalls exempt) when each stall type is enforced (On-Street Supply Studied and No Limit exempt).

Table 5 compares additional 2021 and 2016 on-street performance metrics, including number of vehicles accessing the system, turnover rate, number of vehicles moving between stalls, and long-term use of short-term stalls.

Table 5: Summary of Weekday Downtown On-Street Parking Use Characteristics (**2021 vs.** 2016)

Use Characteristics	All Users	Non-Permit Users	Permit Users[12]
Vehicle Trips	**1,189** 1,382	**1,156** 1,373	**33** 9
Turnover Rate	**4.75** 5.83	**4.93** 5.83	**2.06** 4.74
Vehicles parking for 5 or more hours in time limited stalls (% of vehicle trips)	- -	**95 (8.9%)** 32 (2.6%)	- -
Vehicles moving between stalls: re-parking (% of vehicle trips)	**64 (5.4%)** 71 (5.7%)	- -	- -

1. Number of Unique Vehicle Trips

The recording of license plate numbers allows us to identify the total number of unique vehicles using the on-street system.[13]

During the 2021 survey, 1,189 unique vehicle trips were recorded on-street between 8:00 AM and 7:00 PM. This translates to approximately 108 vehicles arriving each hour over the course of an average business day. In 2016, 1,382 vehicle trips were recorded, an average of 126 vehicles arriving each hour. Overall, the 2021 vehicle load is 193 vehicles lower than in 2016 (14% decrease).[14]

2. Turnover: Efficiency of the Parking System

In most cities, the primary time limit allows for calculation of an *intended turnover rate.* For example, if the intended use for a stall is two hours, the stall should be expected to turn over five (5) times during a 10-hour survey period.[15] If the turnover rate were demonstrated to be less than five (5), the system would not be operating at its intended efficiency. A rate more than five (5) would indicate a system that is operating at or above its intended efficiency. Given that 56% of Oregon City's on-street supply is 2-Hour parking, this standard is useful for evaluating its efficiency.

[12] Permit users were not accurately collected in 2016, so the comparative discrepancies are likely not as large as illustrated.
[13]This does not represent all vehicles in the study area, as license plate numbers were not recorded in off-street facilities.
[14] It is important to note that the 2021 weekday study area is slightly larger than 2016, with lower total vehicle counts.
[15] Calculated by dividing the average time stay into a typical 10-hour business window, taking into account that data collected in 2021 covers an 11-hour study period.

The downtown on-street parking system maintains an average turnover rate of 4.75 for all users in 2021 and 5.83 in 2016. In addition, the turnover rate for non-permit users in 2021 is 4.93. Even when filtering out permit users who tend to have longer stays, the Oregon City system does not exceed the five (5) industry; standard, indicating a slightly inefficient system. Any future reductions in permit and No Limit stalls would likely improve this rate.

3. Excessive Time Stay

The number of vehicles parked in time-limited stalls for five hours or more totaled 95 in 2021 and 32 in 2016. This represents 8.9% and 2.6% of all vehicle trips observed for 2021 and 2016, respectively. It is likely that these vehicles belong to employees who do not have permits.

4. Moving Between Stalls

"Moving Between Stalls" refers to moving vehicles between *time-limited* on-street stalls over the course of a day. This is used to track users who may not be visitors or users who are trying to avoid being cited. This metric can indicate abuse of the system, particularly if those moving their vehicles are employees. Users who shuffle their vehicle from one stall to the next reduce the number of on-street parking opportunities for visitors and customers, creating an artificial constraint on the system. Ideally, those wanting to park for longer periods of time would be directed to the permit program or off-street lots. This would preserve the on-street supply for higher turnover uses.

On the survey years, 64 (2021) and 71 (2016) vehicles were found to be moving between parking stalls, representing 5.4% and 5.7% of all unique vehicle trips to the on-street system. When these numbers are combined with those for excessive time stays, it can be argued that a meaningful percentage of long-term users are using the short-term supply. Moving these vehicles into the off-street system would reduce abuse of short-term stalls and improve turnover and visitor access on-street.

VI: DOWNTOWN – WEEKDAY CHARACTERISTICS OF OFF-STREET PARKING

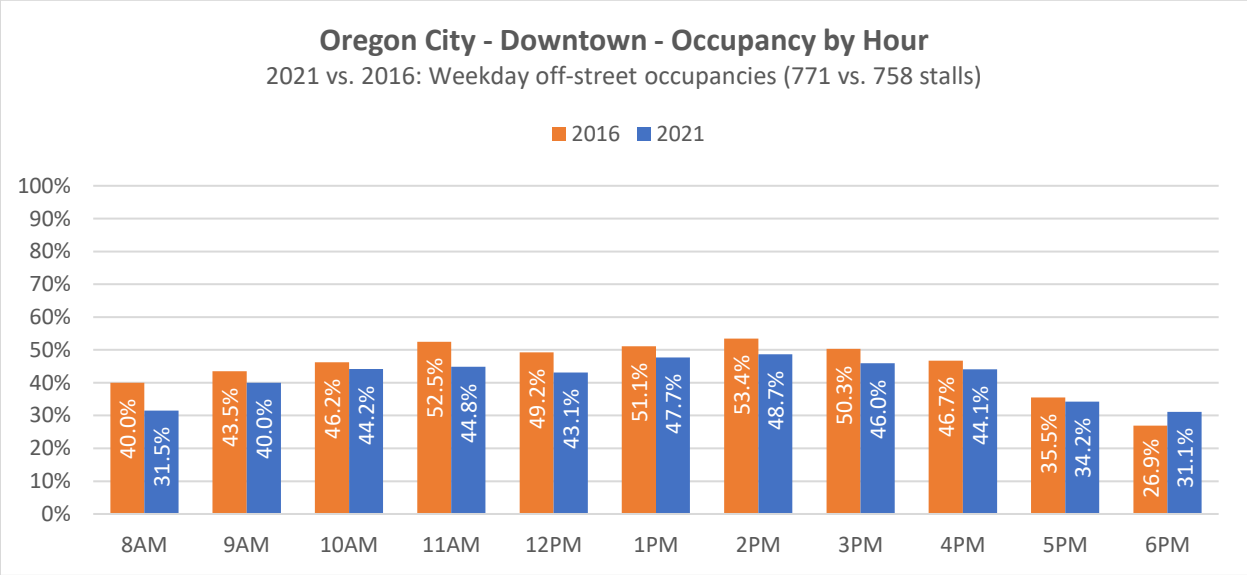
A. Occupancy by Hour – 2021 vs. 2016

The 2021 sampled off-street system includes 771 stalls on 42 sites in downtown (96% of the supply). A summary of each of these sites is provided in **Table 6** (next page)**.**

Figure G compares hourly weekday occupancies between the 2021 and 2016 surveys of the off-street lots.

- The 2021 peak occupancy is 48.7% and occurs between 2:00 PM and 3:00 PM (4.7% lower than in 2016, at the same peak hour).
- 2016 hourly occupancy rates are higher in nine (9) of the 11 hours studied compared to 2021.
- Hourly occupancy rates are relatively consistent in both study years and taper off after 4:00 PM.
- Both study year occupancy rates are not constrained and show ample room to absorb additional vehicles.
- At the 2021 peak hour, 375 vehicles are parked, leaving 396 stalls empty. At the 2016 peak hour, 405 vehicles are parked, leaving 353 stalls empty. Both years yield surplus space to which existing or new users could be directed.

Figure G: Weekday Downtown Off-Street Occupancies by Hour (2021 vs. 2016)



B. Occupancies by Land Use Type – 2021 vs. 2016

Table 6 provides usage information for all 42 off-street lots studied in downtown, categorized by their land use types, contrasting the 2021 and 2016 supply. Cumulative numbers for the entire off-street system are summarized at the beginning of the table. Metrics include peak occupancy hours, site totals, stall totals, and the number of stalls available at the peak hour.[16]

Table 6: Weekday Downtown Off-Street Parking Occupancies by Land Use Type – **2021 vs.** 2016

Use Type	Sites Studied	Stalls Studied	Peak Hour	Peak Occupancy	Stalls Empty
Off-Street Supply[17]	**42** 40	**771** 758	**2:00 PM - 3:00 PM** 2:00 PM - 3:00 PM	**48.7%** 53.4%	**396** 353
Mixed Use	**5** 1	**122** 42	**2:00 PM - 3:00 PM** 2:00 PM - 3:00 PM	**57.4%** 78.6%	**52** 9
Office	**7** 8	**132** 211	**2:00 PM - 3:00 PM** 3:00 PM - 4:00 PM	**65.2%** 45.5%	**46** 115
Permit	**6** 5	**85** 95	**multiple** 2:00 PM - 3:00 PM	**42.4%** 66.3%	**49** 32
Private	**4** 14	**111** 198	**1:00 PM - 3:00 PM** 1:00 PM - 2:00 PM	**45.9%** 66.2%	**60** 67
Public	**1** 1	**93** 92	**5:00 PM - 6:00 PM** 8:00 AM - 10:00 AM	**44.1%** 54.3%	**52** 42
Reserved	**2** -	**45** -	**1:00 PM - 2:00 PM** -	**60.0%** -	**18** -
Residential	**1** -	**5** -	**multiple** -	**80.0%** -	**1** -
Retail	**14** 11	**160** 120	**2:00 PM - 3:00 PM** 1:00 PM - 2:00 PM	**52.5%** 62.5%	**76** 45
Undesignated	**2** -	**18** -	**1:00 PM - 2:00 PM** -	**77.8%** -	**4** -

- The **peak hour** for the off-street supply in 2021 and 2016 was from 2:00 PM to 3:00 PM.
- **Occupancy rates** were lower in 2021 (48.7%) compared to 2016 (53.4%).
- The highest peak occupancies occurred in the residential (80.0%) and undesignated (77.8%) sites, but these sites do not cover a lot of the parking supply (just 3 sites and 23 total stalls).
- Five (5) of the nine (9) land use types operate with the low (green) to moderate (yellow) occupancies based on performance categories described in **Section III.** No use type category would be considered constrained.

[16] A table that summarizes each unique off-street site (by lot number) for the 2021 supply is provided in **Appendix A**.

[17] When extrapolated to the total off-street Downtown parking supply (47 sites/ 803 stalls), the weekday peak hour (2:00 PM) leaves approximately 396 stalls available.

C. Peak Hour Occupancy – Heat Map (2021)

Figures H and **I** illustrate the peak hour for the 2021 and 2016 weekday off-street surveys in a "heat map" format.

2021:

As **Figure H** illustrates, off-street parking is only constrained in six (6) of the forty-two sites studied, all of which are south of 11th Street (Lots 1, 6, 15, 16, 32, and 36). Off-street parking opportunities are available within walking distance to most areas of downtown. At present, most of these lots are in private ownership and may not allow access for non-accessory visitor or employee users. Nonetheless, a sizable proportion of off-street stalls are empty at the peak hour and efforts to grow current shared use parking opportunities should be continued.

2016

In contrast, **Figure I** provides the peak hour heat map from 2016. In 2016, off-street parking was constrained in five (5) of the forty sites studied, all of which are south of 8th Street (Lots 12, 16, 17, 19, and 25). As with 2021, off-street parking opportunities were available within walking distance to most areas of downtown.

Overall, the **Figure H** and **I** heat maps demonstrate that weekday off-street parking is underutilized, with 380 empty stalls (2021) spread consistently across the downtown. This is consistent with findings in 2016, both in terms of empty stalls and the opportunity to expand shared use parking agreements with private owners of off-street parking.

Figure H: Weekday Downtown Off-Street Peak Hour Heat Map (2021)

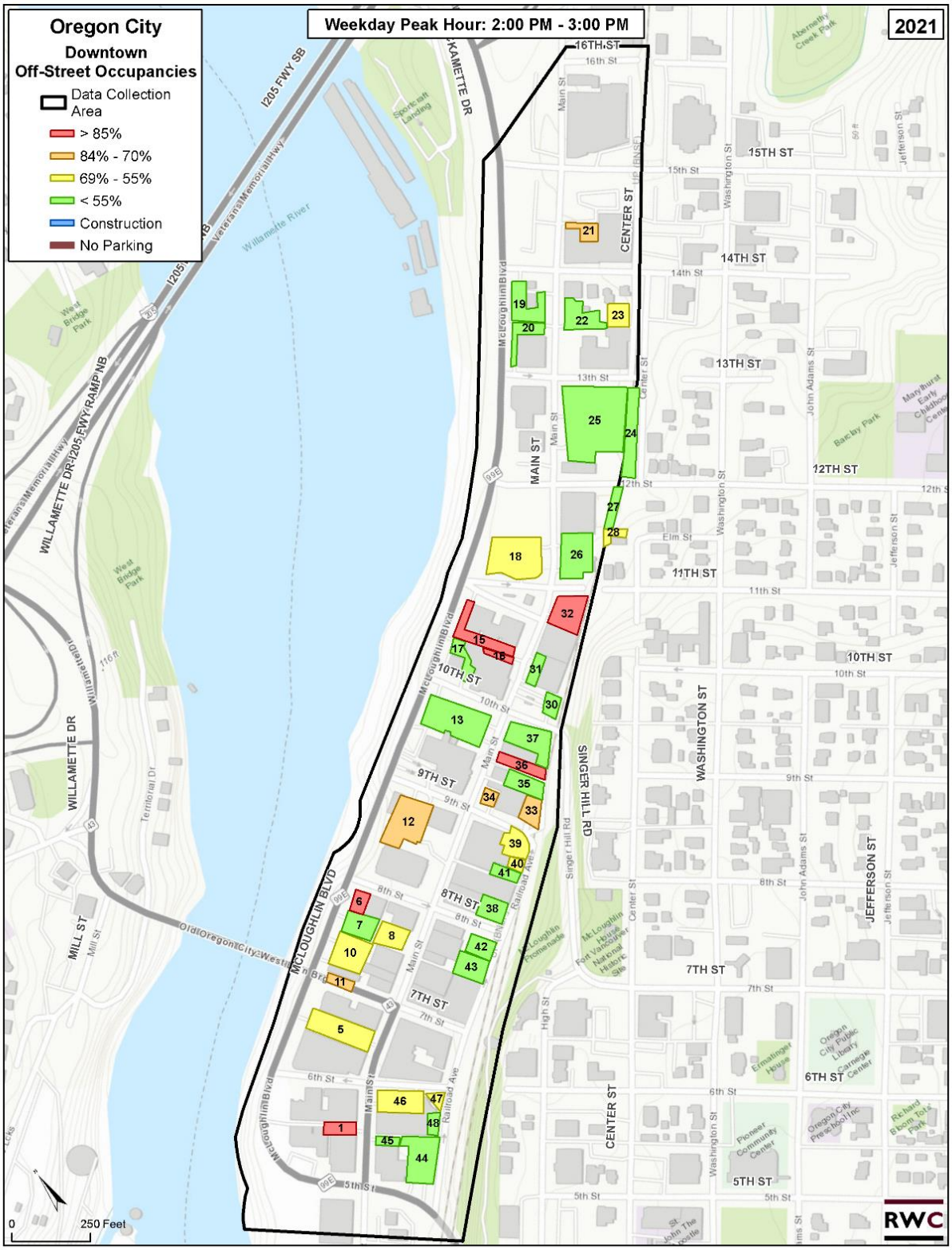
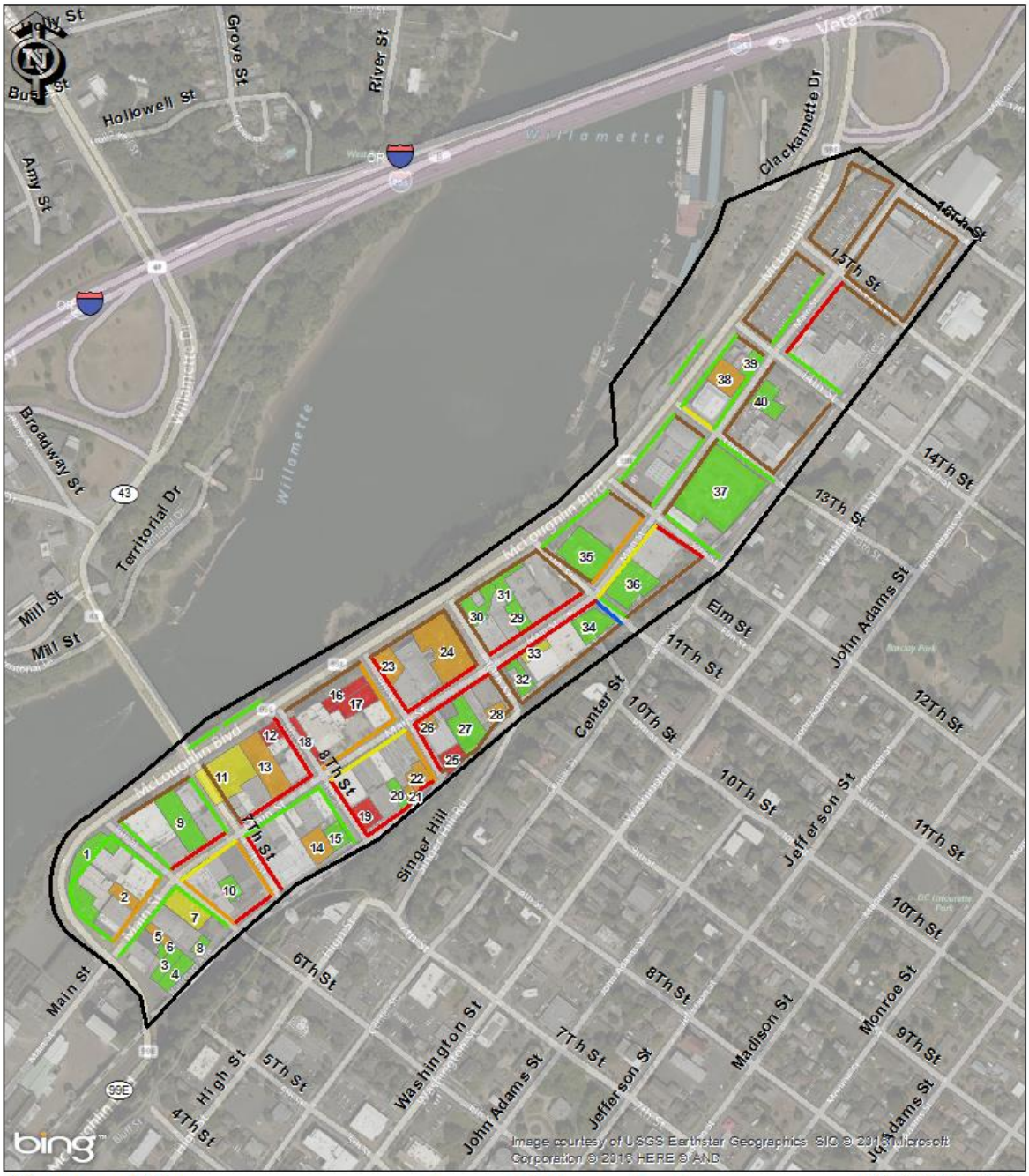


Figure I: 2016: Heat Map – Off-Street/On-Street (Weekday Peak Hour)



Oregon City

Combined Parking Utilization

Parking Study Area

RICK WILLIAMS CONSULTING
Parking & Transportation

> 85%
84% - 70%
69% - 55%
< 55%
Construction
No Parking

> 85%
84% - 70%
69% - 55%
< 55%

Weekday 2016

2:00 - 3:00 PM
Peak Hour

Feet
0 65130 260 390 520

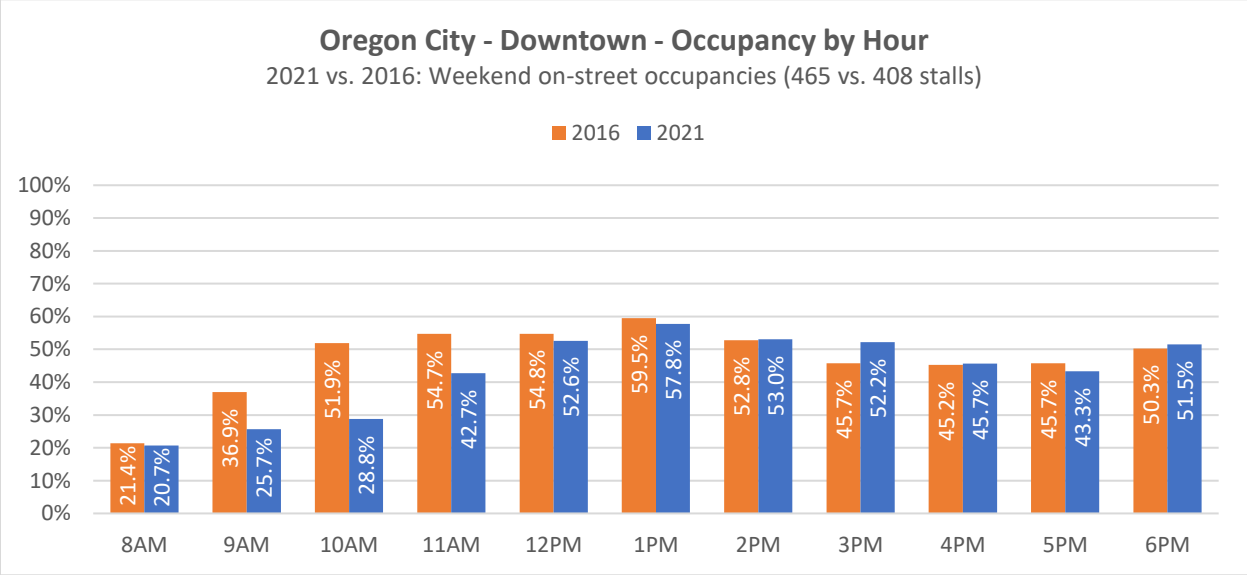
VII. DOWNTOWN – WEEKEND CHARACTERISTICS OF ON-STREET SUPPLY

A. Occupancy – Hourly Distribution (2021 vs. 2016)

Figure J compares hourly occupancies between the 2021 and 2016 surveys.

- The 2021 peak hour is from 1:00 PM to 2:00 PM, when occupancies reach 57.8% (1.7% lower than in 2016).
- 2016 hourly occupancies are higher in seven (7) of the 11 hours throughout the day compared to 2021.
- 2021 occupancy demand fall sharply between 9:00 AM to 11:00 AM versus 2016, as much as 20 percentage points at the 10:00 AM hour.
- 2021 occupancies become more parallel between the two study years in four of the last five hours of the day (2:00 PM – 6:00 PM), with 2021 occupancies exceeding 2016.
- Both 2021 and 2016 show a small spike in the evenings after 6:00 PM, indicating that the downtown experiences a resurgence of activity at dinner time.

Figure J: Weekend Downtown On-Street Occupancy by Hour (2021 vs. 2016)



B. Peak Hour Occupancy – Heat Map (2021 Weekend)

Figures K and L (page 27 and 28, respectively) illustrate the peak hours for the 2021 and 2016 weekend on-street surveys in a "heat map" format.

2021

As **Figure K** shows, twenty (20) of the 57 block faces that allow parking (35%) are constrained during the weekend peak hour. Most are concentrated south of 11th Street, which could cause users to perceive an

overall constraint in the on-street system. Nine (9) of the 57 block faces (16%) fall within the efficient range of occupancy (orange). The remaining block faces (49%) have low to moderate uses, 24 are green and 4 are yellow on the heat map.

It is clear from **Figure K**, that though 2021 weekend on-street activity is slightly lower than 2016, it is much more robust than 2021 weekdays (see **Figure E** (page 14).

2016

For contrast, **Figure L** provides the peak hour heat map from 2016. Twenty-one (21) of 48 block faces that allow parking (44%) were constrained during the 2016 weekend peak hour. All but one was located south of 11th Street, contributing to a perception of constraint by users that continues for weekends in 2021. An additional two (2) of the 48 block faces (4%) fell within the efficient range of occupancy (orange). The remaining block faces (52%) had low to moderate uses, 16 are green and 9 are yellow on the heat map.

Overall, the **Figure K** and **L** heat maps demonstrate robust parking activity in the downtown, weekends, when 2021 is compared to 2016. On-street constraints continue at a substantial number of block faces, mostly clustered south of 11th Street. While weekday activity has notably decreased, the weekend has remained consistent between study years, particularly in mid to late afternoon hours.

Figure K: Weekend Downtown On-Street Peak Hour Heat Map (2021)

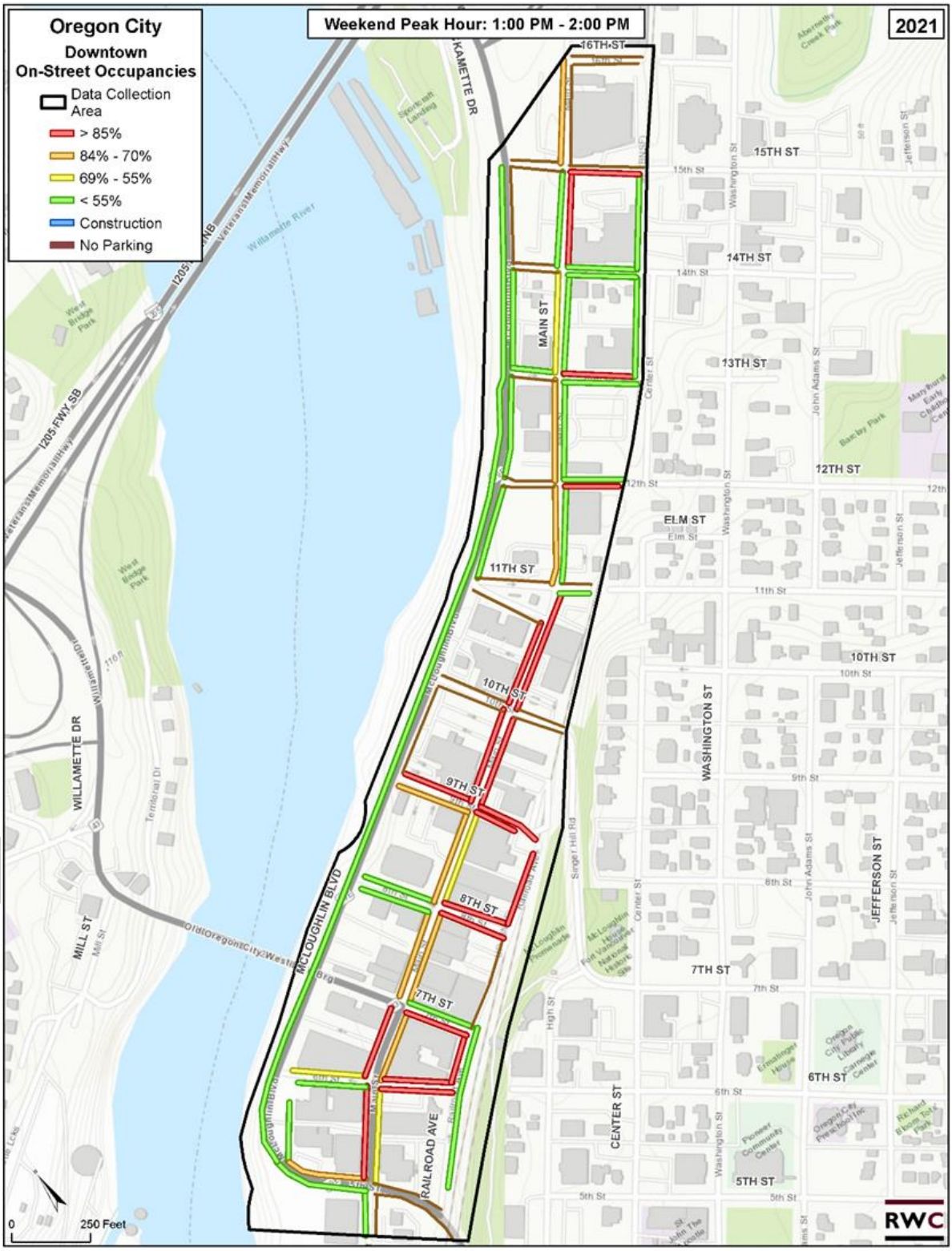
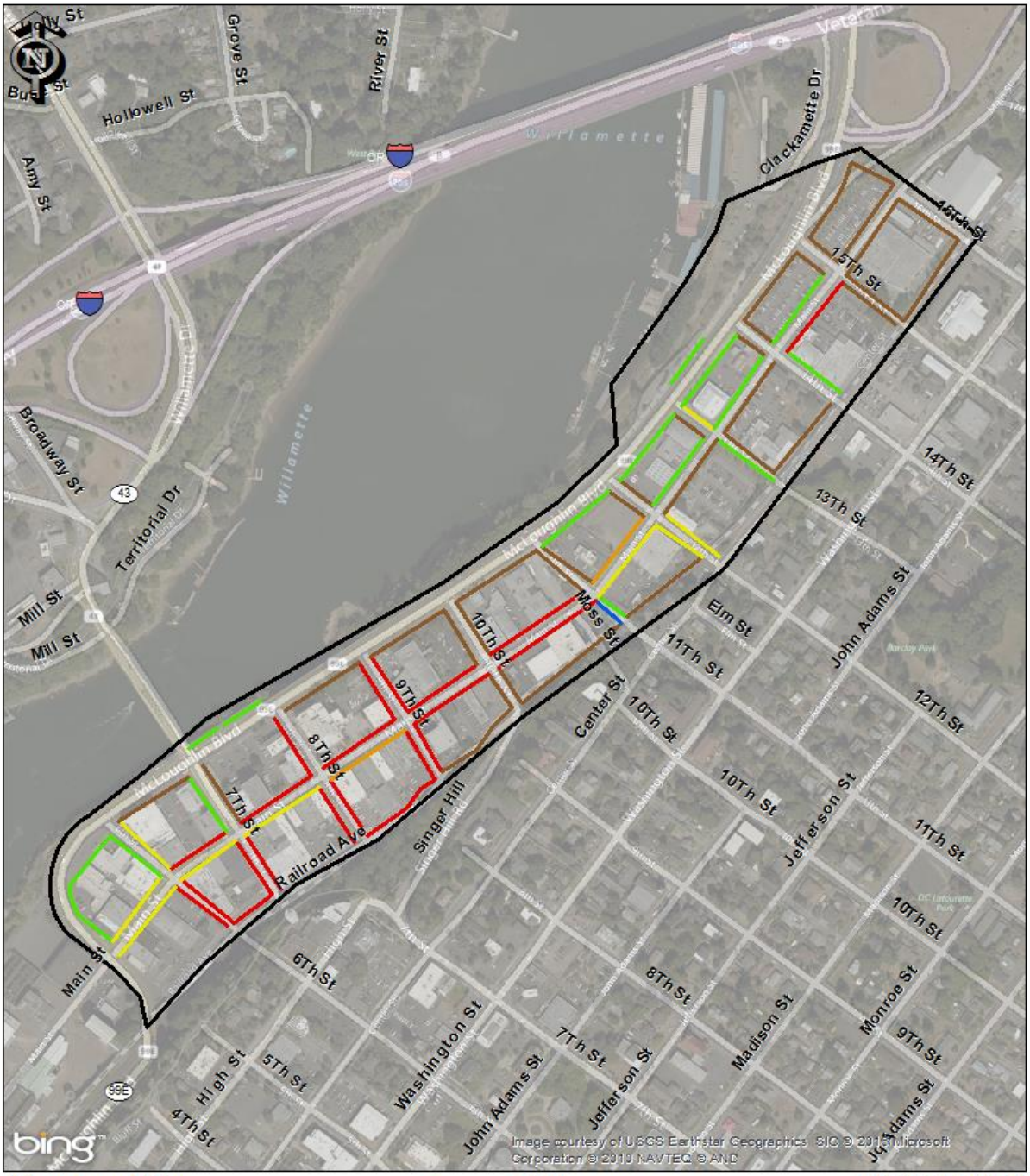


Figure L: Weekend Downtown On-Street Peak Hour Heat Map (2016)



C. Utilization and Other Use Characteristics

Table 7 (next page) summarizes 2021 parking use patterns for each stall type during a typical weekend in 2021 and 2016. Performance metrics include peak hour, peak occupancy, number of empty stalls, average length of stay, and violation rate.

- The **peak hour** for the on-street supply in 2021 was from 1:00 PM to 2:00 PM, the same as in 2016.
- **Occupancy rates** were slightly lower in 2021 (57.8%) compared to 2016 (59.5%).
- The **average length of stay** was 1 hour 58 minutes in 2021 (9 minutes longer than in 2016).
- **Violation rates** are above industry best-practice targets of 5% to 7%. The 2021 violation rate is 11.3% (3.2% lower than in 2016).
- Even though the violation rate is above best-practice targets, the average length of stay in 2-Hour metered and signed stalls (1:46 hours) is below two hours, indicating that these stalls are well calibrated to the needs of most customers.
- Of the entire on-street supply, 2-Hour metered stalls (86.2%) and 4-Hour signed stalls (87.5%) are constrained during their respective peak hours, both higher occupancies than in 2016 for these stall types.
- 4-Hour metered and signed stalls, and 8-Hour metered stalls show a shorter duration of stay on average, indicating an insufficient time stay based on user need. Reducing the number of these stalls by converting them to 2- or 3-Hour time stays may be appropriate.

Table 7: Weekend Downtown On-Street Parking Utilization Comparative (**2021 vs.** 2016)

Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls	Average Length of Stay[18]	Violation Rate
On-Street Supply Studied	**465** 408	**1:00 PM – 2:00 PM** 1:00 PM – 2:00 PM	**57.8%** 59.5%	**195** 161	**1:58 hours** 1:49 hours	**11.3%** 14.5%
2 Hours Metered	**206** 227	**6:00 PM – 7:00 PM** 1:00 PM – 2:00 PM	**86.2%** 73.2%	**28** 62	**1:46 hours** 1:44 hours	**14.5%** 15.0%
2 Hours Signed	**55** 36	**3:00 PM – 4:00 PM** 1:00 PM – 2:00 PM	**32.7%** 47.2%	**37** 19	**1:57 hours** 2:04 hours	**15.9%** 16.1%
4 Hours Metered	**14** -	**4:00 PM – 5:00 PM** -	**35.7%** -	**9** -	**1:53 hours** -	**-** -
4 Hours Signed	**8** 21	**12:00 PM – 2:00 PM** 2:00 PM – 3:00 PM	**87.5%** 23.5%	**1** 13	**1:31 hours** 1:42 hours	**-** -
8 Hours Metered	**29** 28	**1:00 PM – 2:00 PM** 11:00 AM – 12:00 PM	**51.7%** 40.0%	**14** 15	**2:06 hours** 2:10 hours	**-** 3.2%
ADA accessible	**6** 4	**multiple** 1:00 PM – 2:00 PM	**50.0%** 75.0%	**3** 1	**1:47 hours** 2:08 hours	**-** -
Authorized Vehicle	**1** -	**-** -	**-** -	**1** -	**-** -	**-** -
Blue Permit	**25** 30	**multiple** 12:00 PM – 1:00 PM	**24.0%** 23.3%	**19** 23	**1:41 hours** 1:54 hours	**-** -
Courthouse Permit	**12** -	**6:00 PM – 7:00 PM** -	**41.7%** -	**7** -	**1:27 hours** -	**-** -
Green Permit	**24** 9	**2:00 PM – 3:00 PM** 4:00 PM – 5:00 PM	**25.0%** 55.6%	**18** 4	**1:47 hours** 3:00 hours	**-** -
Purple Permit	**24** 23	**1:00 PM – 3:00 PM** multiple	**41.7%** 13.0%	**14** 20	**5:13 hours** 3:00 hours	**-** -
Red Permit	**24** 30	**1:00 PM – 3:00 PM** 11:00 AM – 12:00 PM	**54.2%** 78.3%	**11** 5	**3:09 hours** 6:29 hours	**-** -
Yellow Permit	**10** -	**11:00 AM – 12:00 PM** -	**70.0%** -	**3** -	**2:00 hours** -	**-** -
No Limit	**27** -	**12:00 PM – 1:00 PM** -	**81.5%** -	**5** -	**4:28 hours** -	**-** -

[18] Average duration is filtered to show non-permit users only (ADA accessible, No Limit, and all permit only stalls exempt) when each stall type is enforced (On-Street Supply Studied and No Limit exempt).

Table 8 compares additional 2021 and 2016 on-street performance metrics, including number of vehicles accessing the system, turnover rate, number of vehicles moving between stalls, and long-term use of short-term stalls.

Table 8: Summary of Weekend Downtown On-Street Parking Use Characteristics (**2021 vs.** 2016)

Use Characteristics	All Users	Non-Permit Users	Permit Users[19]
Vehicle Trips	**1,111** 1,081	**1,099** 1,059	**12** 22
Turnover Rate	**5.08** 5.77	**5.08** 6.05	**5.22** 1.59
Vehicles parking for 5 or more hours in time limited stalls (% of vehicle trips)	- -	**82 (8.4%)** 48 (4.7%)	- -
Vehicles moving between stalls: re-parking (% of vehicle trips)	**33 (3.0%)** 27 (2.6%)	- -	- -

1. Number of Unique Vehicles

During the 2021 survey, 1,111 unique vehicle trips were recorded on-street between 8:00 AM and 7:00 PM. This translates to 101 vehicles arriving each hour over the course of an average weekend. In 2016, 1,081 vehicle trips were recorded, an average of 98 vehicles arriving each hour. Overall, the 2021 vehicle load is thirty vehicles greater than in 2016 (2.8% increase).

2. Turnover: Efficiency of the Parking System

On the weekend, the downtown on-street parking system maintains an average turnover rate of 5.08 for all users in 2021 and 5.77 in 2016. In addition, the turnover rate for non-permit users in 2021 is also 5.08. With or without permit users, the on-street parking system exceeds the 5.0 standard, indicating an efficient system during the weekend. Any future reductions in permit and No Limit stalls would improve this rate.

3. Excessive Time Stay

The number of vehicles parked in time-limited stalls for five hours or more totaled 82 in 2021 and 48 in 2016. This represents 8.4% and 4.7% of all vehicle trips observed for 2021 and 2016, respectively. It is likely that these vehicles belong to employees who do not have permits.

[19] Permit users were not accurately collected in 2016, so this comparative discrepancy is likely not as large as illustrated.

4. Moving Between Stalls

On the survey years, 33 (2021) and 27 (2016) vehicles were found to be moving between parking stalls, representing 3.0% and 2.6% of all unique vehicle trips to the on-street system. These numbers are small, however, moving these vehicles into the off-street system would reduce abuse of short-term stalls and improve turnover and visitor access on-street.

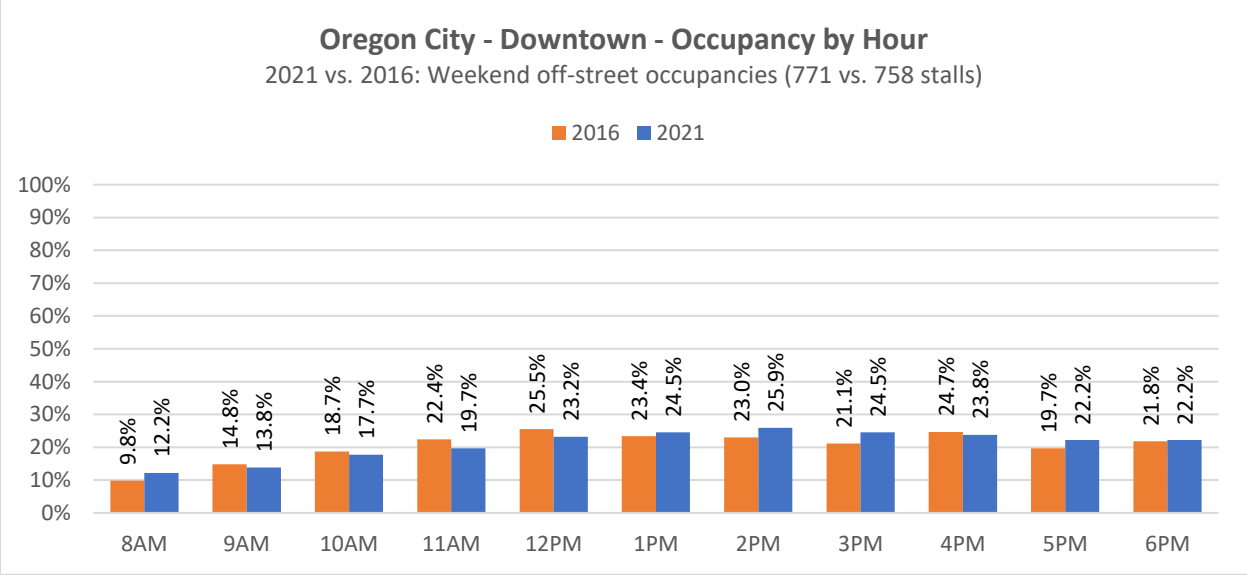
VIII: DOWNTOWN – WEEKEND CHARACTERISTICS OF OFF-STREET PARKING

A. Occupancy by Hour – 2021 vs. 2016

Figure M compares hourly occupancies between the 2021 and 2016 surveys of the off-street lots.

- The 2021 peak occupancy is 25.9% and occurs between 2:00 and 3:00 PM (0.4% higher than in 2016, with a 12:00 PM to 1:00 PM peak hour).
- Hourly occupancy rates are higher in six (6) of the 11 hours studied in 2021 compared to 2016.
- Hourly occupancy rates are relatively consistent in both study years and mostly unchanged.
- Both study year occupancy rates are low per industry performance standards and show ample room to absorb additional vehicles.
- At the 2021 peak hour, 208 vehicles are parked, leaving 563 stalls empty. At the 2016 peak hour, 193 vehicles were parked, leaving 565 stalls empty. Both years yield surplus space to which existing or new users could be directed.

Figure M: Weekend Downtown Off-Street Occupancies by Hour (2021 vs. 2016)



B. Weekend Occupancies by Land Use Type (2021 vs. 2016)

Table 9 provides usage information for all 42 off-street lots studied in downtown, categorized by their land use types, contrasting the 2021 and 2016 supply. Cumulative numbers for the entire off-street system are summarized at the beginning of the table. Metrics include peak occupancy hours, site totals, stall totals, and the number of stalls available at the peak hour.

Table 9: Weekend Downtown Off-Street Occupancies by Land Use Type (**2021 vs.** 2016)

Use Type	Sites Studied	Stalls Studied	Peak Hour	Peak Occupancy	Empty Stalls
Off-Street Supply[20]	**42** 40	**771** 758	**2:00 PM - 3:00 PM** 12:00 PM - 1:00 PM	**25.9%** 25.5%	**563** 565
Mixed Use	**5** 1	**122** 42	**1:00 PM - 2:00 PM** multiple	**32.8%** 52.4%	**82** 20
Office	**7** 8	**132** 211	**10:00 AM - 11:00 AM** 4:00 PM - 5:00 PM	**22.7%** 18.5%	**102** 172
Permit	**6** 5	**85** 95	**6:00 PM - 7:00 PM** 12:00 PM - 1:00 PM	**25.9%** 24.2%	**63** 72
Private	**4** 14	**111** 198	**1:00 PM - 2:00 PM** 4:00 PM - 5:00 PM	**16.2%** 27.8%	**93** 143
Public	**1** 1	**93** 92	**3:00 PM - 5:00 PM** 4:00 PM - 5:00 PM	**33.3%** 16.3%	**62** 77
Reserved	**2** -	**45** -	**2:00 PM - 3:00 PM** -	**26.7%** -	**33** -
Residential	**1** -	**5** -	**10:00 AM - 11:00 AM** -	**20.0%** -	**4** -
Retail	**14** 11	**160** 120	**12:00 PM - 1:00 PM** multiple	**43.1%** 51.7%	**91** 58
Undesignated	**2** -	**18** -	**5:00 PM - 6:00 PM** -	**50.0%** -	**9** -

- The **peak hour** for the off-street supply in 2021 was from 2:00 PM to 3:00 PM and from 12:00 PM to 1:00 PM in 2016.
- **Occupancy rates** were slightly higher in 2021 (27.0%) compared to 2016 (25.5%).
- For 2021, the highest peak occupancies occurred in the Retail sites (43.1%), though lower than 2016, when similar sites reached 51.7%.
- Undesignated sites reached 50% occupancy, though this use type category represents just 2 sites and 18 total stalls.
- All land use types have readily available parking with all off-street activity performing at a low level of demand.

[20] When extrapolated to the total off-street Downtown parking supply (42 sites/ 803 stalls), the weekend peak hour (2:00 PM) leaves approximately 586 stalls available.

C. Weekend Off-Street Peak Hour Heat Map (2021)

Figure N and **O** (below) illustrate the peak hours for the 2021 and 2016 weekend off-street survey in a "heat map" format.

2021

As **Figure N** shows, off-street parking is only constrained in one (1) of the 42 sites studied, southwest of 6th Street on the north side of Main Street (Lot 1). Lot 27 (at 12th Street and Center Street) reaches an orange level of occupancy. Seven (7) lots have moderate use (yellow) and include Lots 12, 15, 17, 21, 22, and 36. The remaining 33 off-street parking sites have low use (green) and are evenly spread throughout the downtown study zone.

As the map illustrates, off-street parking opportunities are available within walking distance to all areas of downtown. At the peak hour, 563 stalls are empty in off-street lots located throughout the downtown. As stated earlier, these lots may not currently allow for general users or non-accessory employees to access them. However, efforts to grow current shared use parking opportunities should be continued.

2016

In contrast, **Figure O** provides the peak hour heat map from 2016. In 2016, off-street parking was similarly constrained in just one lot (Lot 2 on the map). Three (3) sites reached an orange level of performance (Lots 22, 38, and 40). Four (4) lots (Lots 15, 17, 29, and 35) had moderate use (yellow). The remaining 32 off-street parking sites had low use (green) and were evenly spread throughout the downtown study zone. At the peak hour, there were 565 empty stalls in off-street parking lots.

Overall, the **Figure N** and **O** heat maps demonstrate that weekend off-street parking is underutilized, with 563 empty stalls (2021) spread evenly across the downtown. This is consistent with findings in 2016, both in terms of empty stalls and the opportunity to expand shared use parking agreements with private owners of off-street parking.

Figure N: Weekend Downtown Off-Street Peak Hour Heat Map (2021)

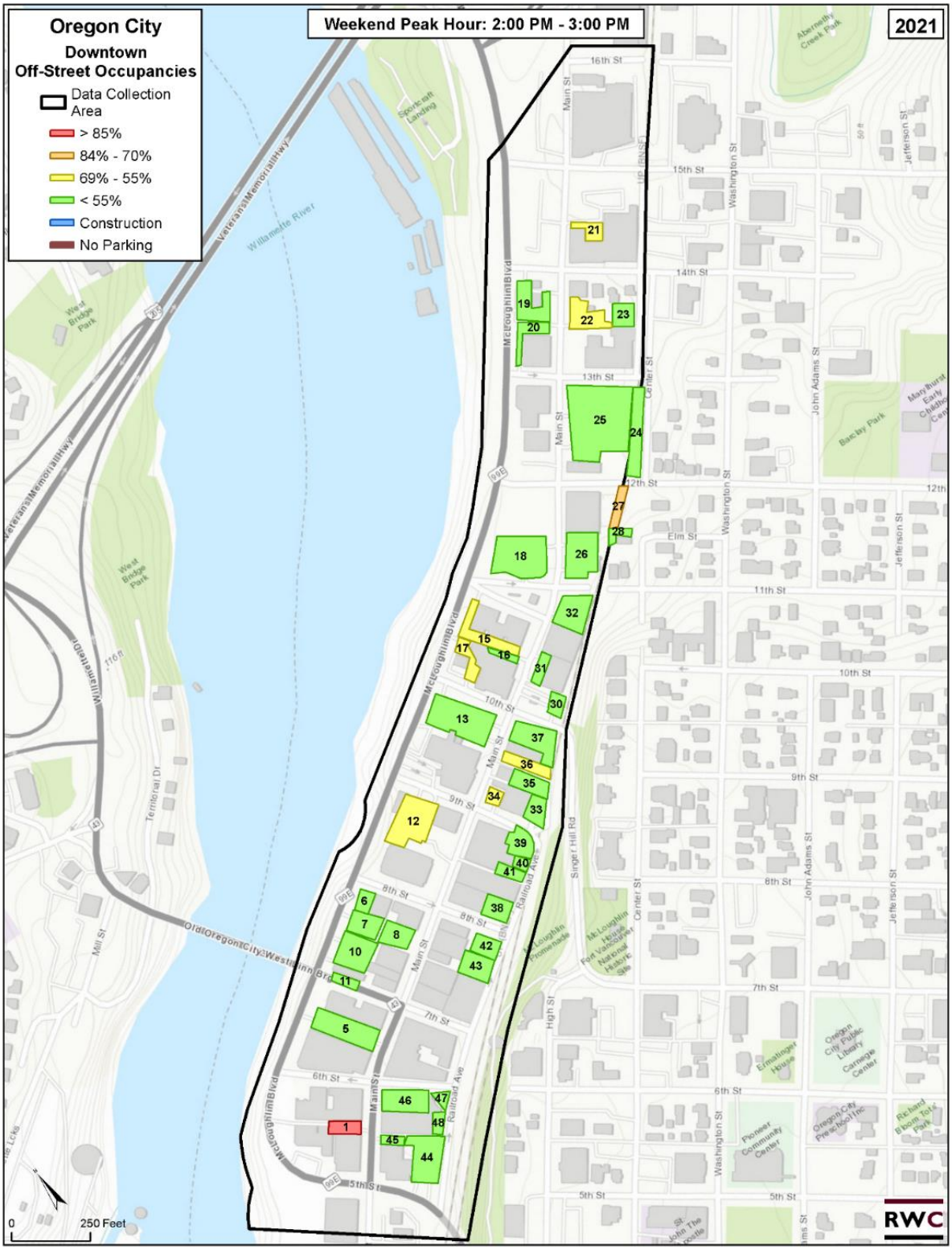
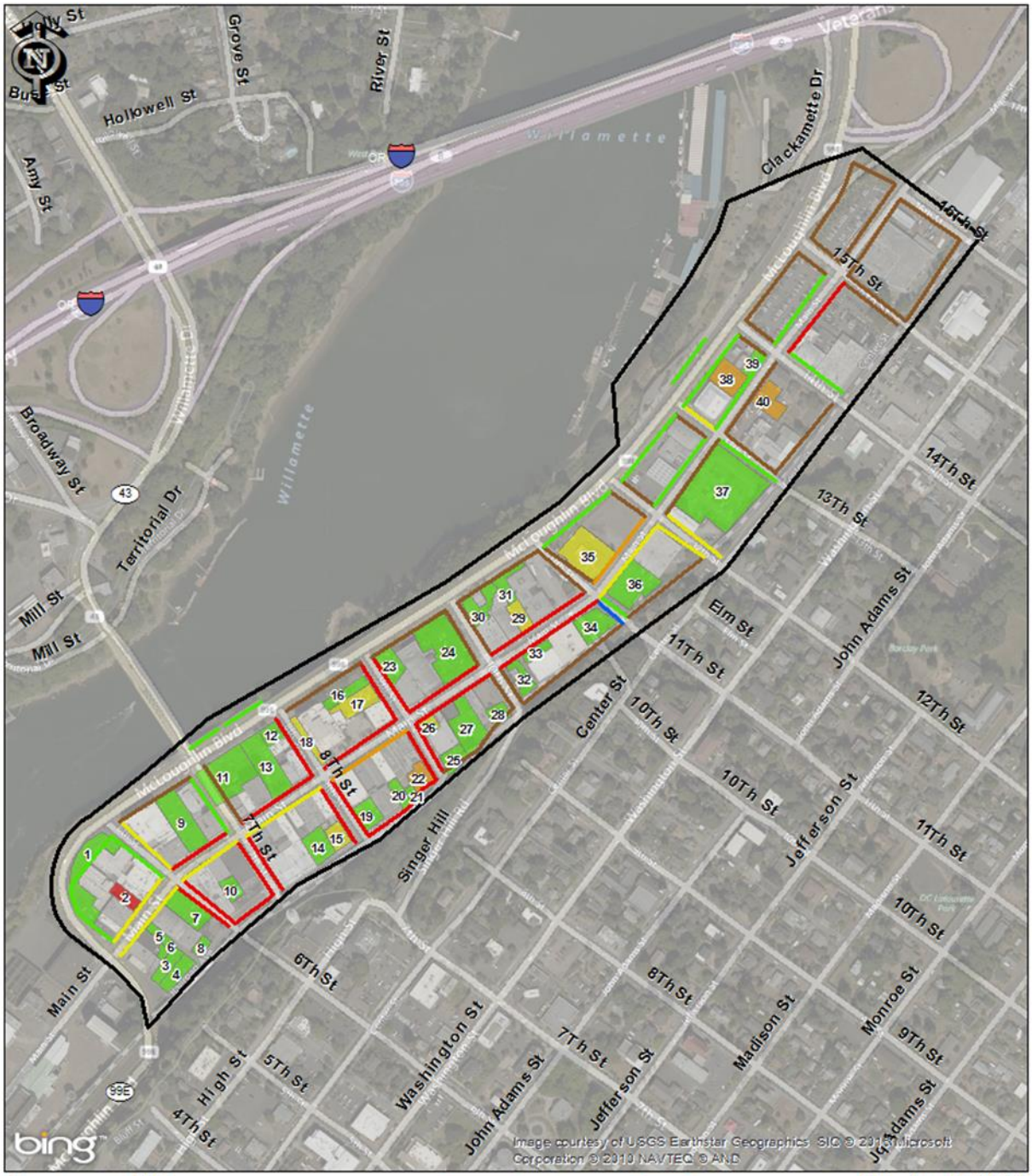


Figure O: Weekend Downtown Off-Street Peak Hour Heat Map (2016)



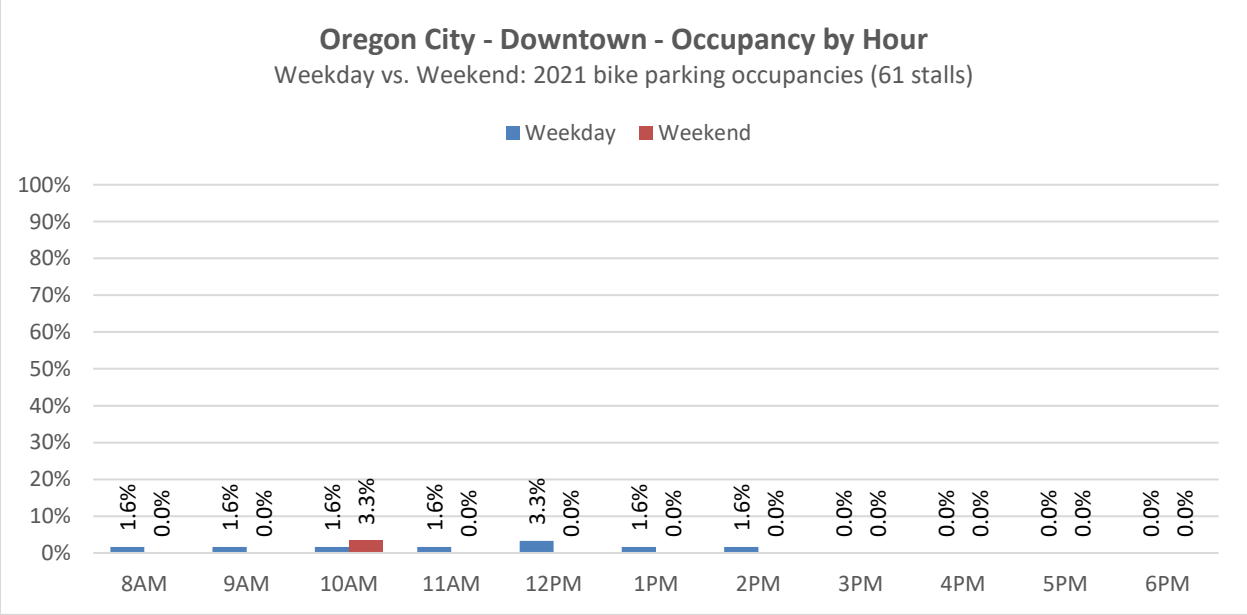
IX: DOWNTOWN – CHARACTERISTICS OF BICYCLE PARKING

A. Occupancy by Hour – Weekday vs. Weekend

Figure P compares hourly occupancies between the weekday and weekend surveys of the bicycle parking.

- The weekday peak occupancy is 3.3% (the same as the weekend) and occurs between 12:00 PM and 1:00 PM (10:00 AM to 11:00 AM during the weekend).
- Hourly occupancies are 0% for four (4) of the 11 hours studied during the weekday and for ten of the 11 hours studied during the weekend.
- At their peaks, both days only account for two (2) total bicycles parked.
- While the total bicycle capacity in the downtown is low (61), there is, currently, little to no use, leaving ample room for people to park their bikes.

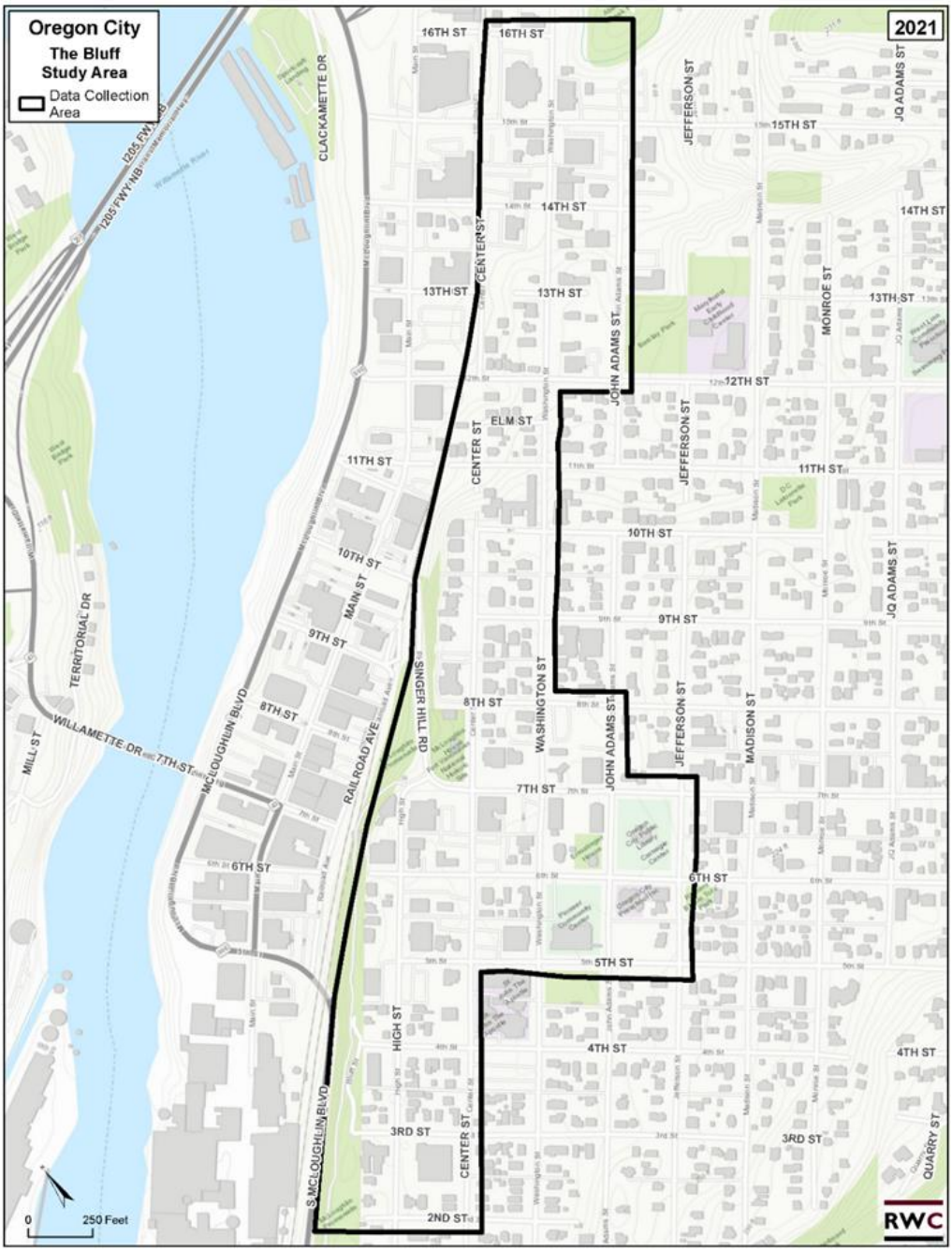
Figure P: Downtown Bicycle Occupancies by Hour (Weekday vs. Weekend)



X: BLUFF – STUDY AREA AND PARKING SUPPLY

The Bluff study area was determined in the initial scoping process by the City of Oregon City and the consultant team. This area is bounded by Center Street, Railroad Avenue, and McLoughlin Blvd to the northwest, 16th Street to the northeast, John Adams, Washington, Jefferson, and Center Streets to the southeast, and 12th, 5th, and 2nd Streets to the southwest. See **Figure Q**, below.

Figure Q: Bluff Parking Study Area



A. On-Street Inventory

Table 10 illustrates the total on-street parking inventory in the Bluff. As the table indicates, a total of 837 stalls were documented in the Bluff's on-street system in 2021. Of these, eight (8) stalls are metered, and 829 stalls are unmetered (signed or no sign visible[21]).

Table 10: Bluff On-Street Parking Inventory (2021)

Stall Type	Stalls	% Total	Metered[22]	% Total	Unmetered	% Total
On-Street Supply	**837**	**100.0%**	**8**	**< 1%**	**829**	**99.0%**
15 Minutes	3	< 1%	-	-	3	< 1%
30 Minutes	9	1.1%	-	-	9	1.1%
2 Hours	348	41.6%	-	-	348	41.6%
4 Hours	7	< 1%	7	< 1%	-	-
ADA accessible	5	< 1%	1	< 1%	4	< 1%
Elevator Staff Parking Only	1	< 1%	-	-	1	< 1%
Purple Permit	23	2.7%	-	-	23	2.7%
Red Permit	17	2.0%	-	-	17	2.0%
No Limit	424	50.7%	-	-	424	50.7%

Most of the on-street system is dedicated to No Limit (424) and 2-Hour signed (348 stalls) parking spaces. Combined, 2-Hour signed, and No Limit parking stalls account for 92.3% of the on-street supply. There are only eight (8) metered stalls, which include 4-Hour (7) and ADA accessible (1) spaces. Overall, the format of the on-street supply favors neither short-term nor long-term parkers and, unlike the downtown, is provided free of charge.

[21] If a sign was not visible, stalls were categorized as No Limit.

[22] All metered stalls in the Bluff are Single Head.

B. Off-Street Inventory

A total of 73 off-street sites with 1,366 parking stalls were inventoried in the Bluff. Of this system-wide supply, 56 sites with 1,240 parking stalls were surveyed during the study days (a 91% sample size). The off-street sites that were not collected typically are not important to the parking supply as they can be small, restricted, or vacant properties. This significant sample size of the off-street parking supply ensures clear insight into the weekday and weekend parking activity in 2021. See **Figure R**, below.

Figure R: Bluff Off-Street Facilities (Collected vs. Not Collected)

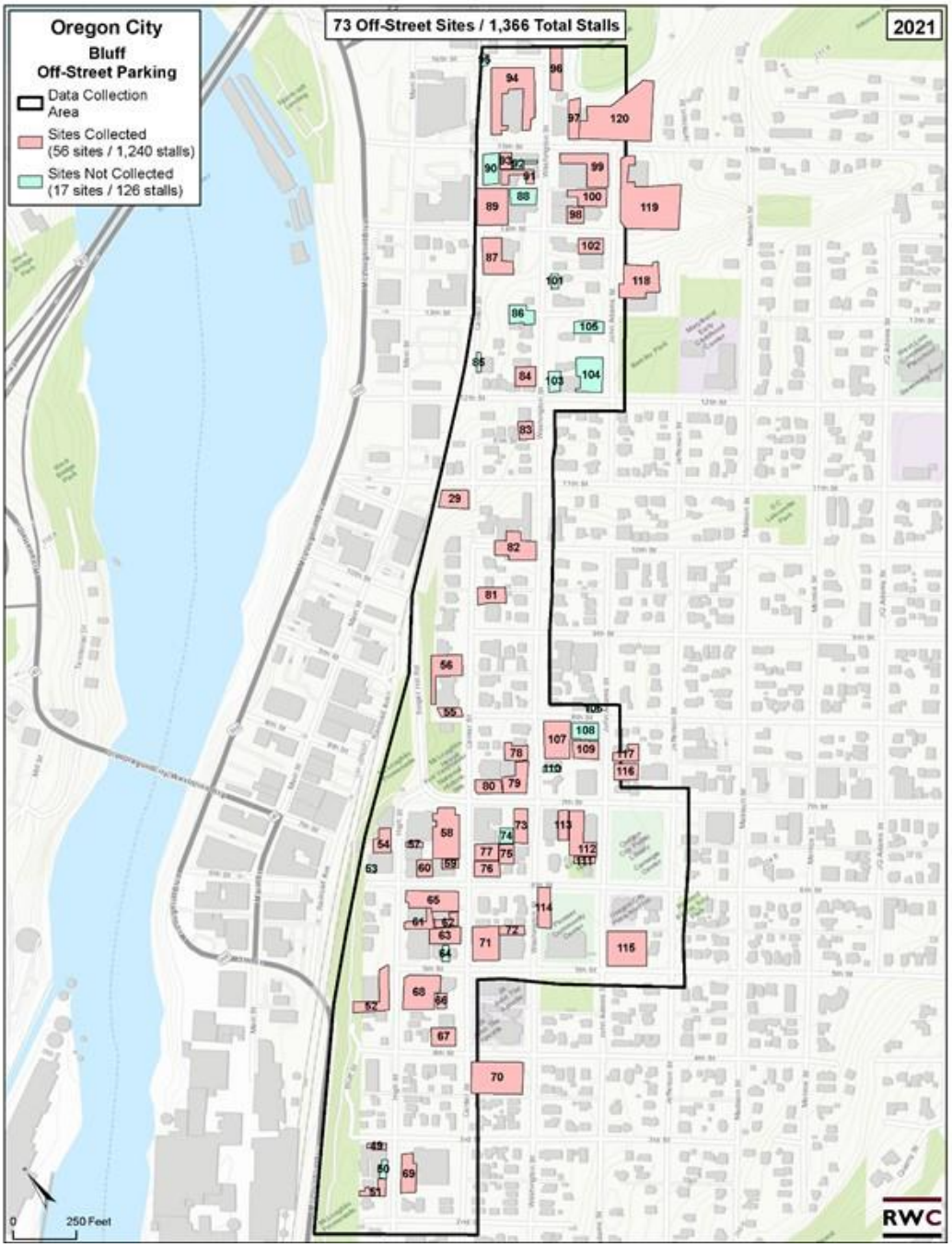


Table 11 illustrates the total off-street parking inventory in the Bluff study area. As the table indicates, a total of 1,366 stalls are located off-street in 73 unique sites. Of these sites, most of the supply is dedicated to Institution (335 stalls), Office (252 stalls), and Retail (207 stalls) land use types. Mixed Use and Event Venue land use types also hold notable portions of the parking supply (10.6% and 9.4%, respectively). Permit and Service use types accounted for the lowest number of sites and parking stalls.

Table 11: Bluff Off-Street Parking Inventory by Land Use Type (2021)

Use Type	Sites	% Total	Stalls	% Total
Off-Street Supply	**73**	**100.0%**	**1,366**	**100.0%**
Event Venue	2	2.7%	128	9.4%
Institution	10	13.7%	335	24.5%
Medical	5	6.8%	86	6.3%
Mixed Use	6	8.2%	145	10.6%
Office	17	23.3%	252	18.4%
Permit	1	1.4%	8	< 1%
Private	2	2.7%	24	1.8%
Reserved	2	2.7%	31	2.3%
Residential	8	11.0%	71	5.2%
Retail	15	20.5%	207	15.2%
Service	1	1.4%	15	1.1%
Undesignated	4	5.5%	64	4.7%

C. Bicycle Inventory

A total of 16 locations were inventoried for bicycle parking in the Bluff, accounting for 100% of the supply. Of this system-wide supply, nine (9) had Staple type parking (41 bike capacity), five (5) had Wave type parking (17 bike capacity), and two (2) had Vertical type parking (6 bike capacity). See **Figure S** (next page).

Figure S: Downtown Bicycle Parking

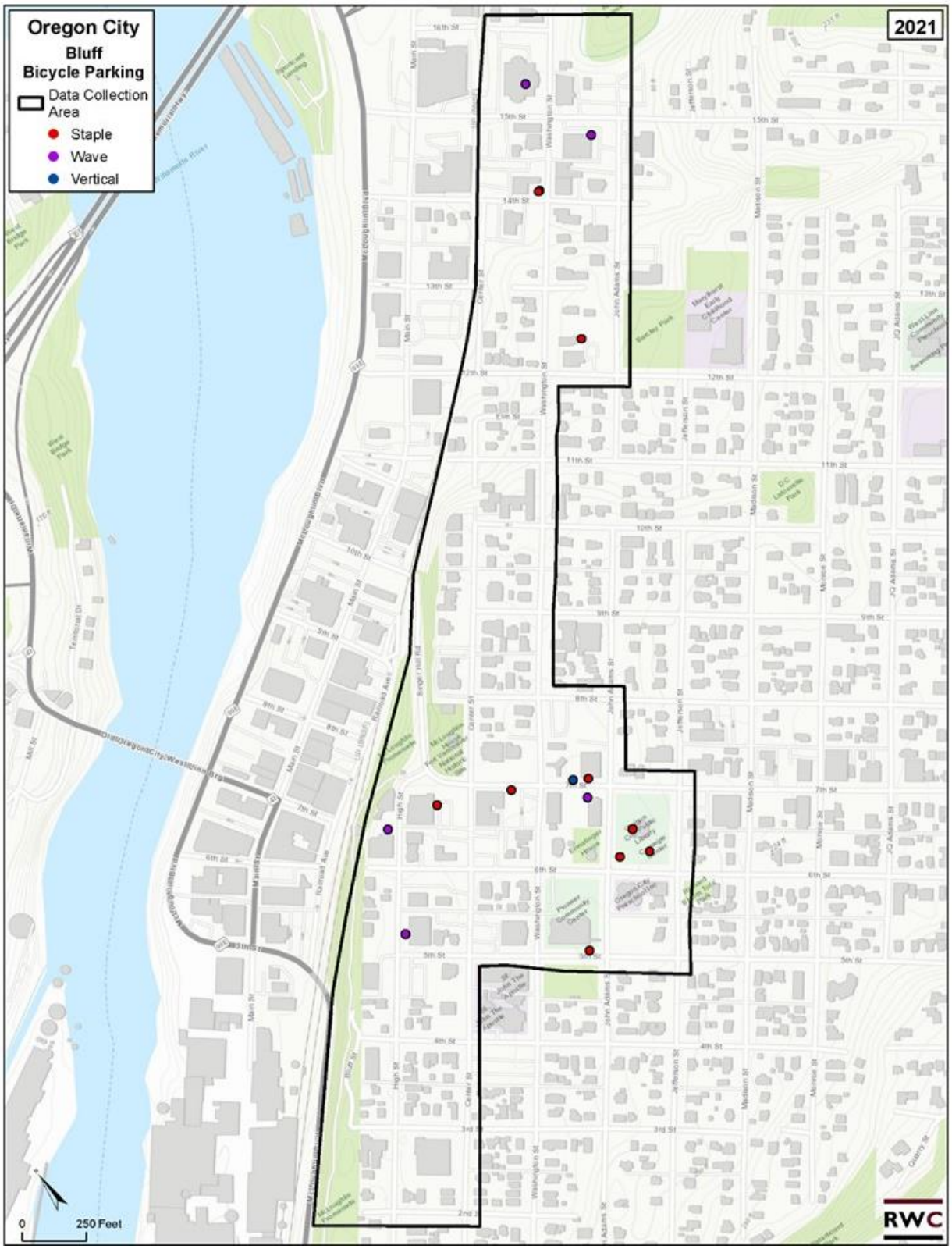


Table 12 illustrates a breakout of the bicycle capacities and structure types in the Bluff study area. As the table indicates, a total of 28 bicycle structures with a capacity to fit 64 bicycles were inventoried in downtown. Of this system-wide supply, 21 were of the Staple type (41 bike capacity), five (5) were of the Wave type (17 bike capacity), and two (2) were of the Vertical type (6 bike capacity).

Table 12: Bluff Bicycle Parking Inventory by Structure Type

Bluff	Structures	% Total	Capacity	% Total
Bicycle Parking Supply	**28**	**100.0%**	**64**	**100.0%**
Staple	21	75.0%	41	64.1%
Wave	5	17.9%	17	26.6%
Vertical	2	7.1%	6	9.4%

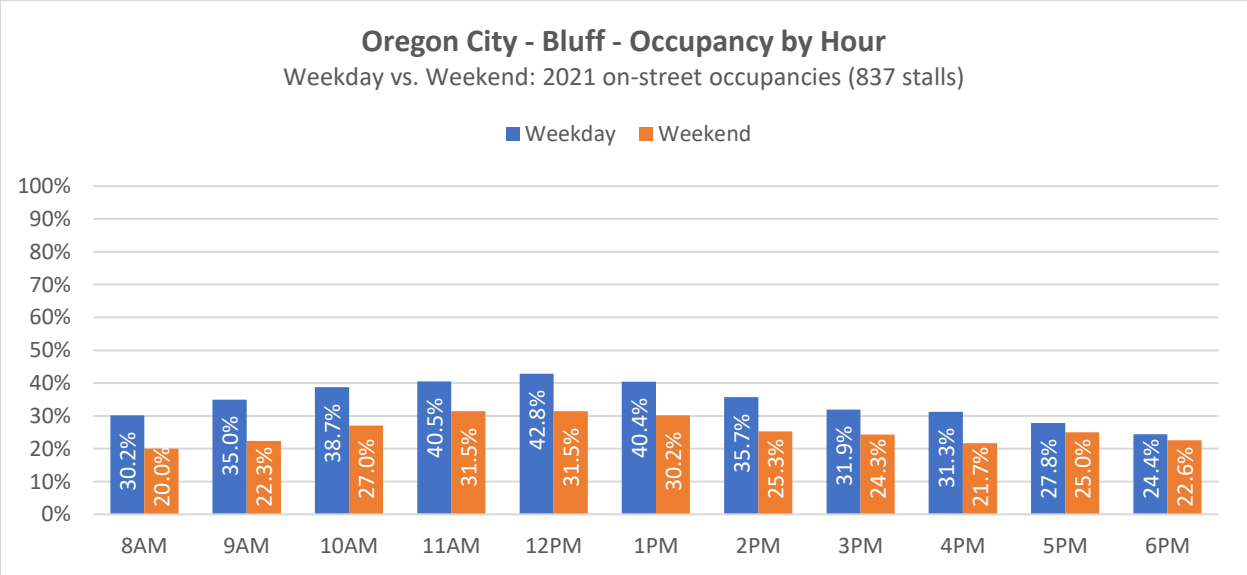
XI. BLUFF – CHARACTERISTICS OF ON-STREET SUPPLY

A. Occupancy – Hourly Distribution (Weekday vs. Weekend)

Figure T compares hourly occupancies between the 2021 weekday and weekend surveys.

- The weekday peak hour is from 12:00 PM to 1:00 PM, when occupancies reach 42.8%.
- The weekend peak hour is from 11:00 AM to 1:00 PM, when occupancies reach 31.5% (11.3% less than the weekday).
- Hourly occupancies are higher in all eleven survey hours, when comparing the weekday to the weekend.
- Both the weekday and weekend hourly occupancies indicate low use over all 11 hours of the study days, ranging 24.4% to 42.8% occupied and 20.0% to 31.5% occupied, respectively.

Figure T: 2021 Bluff On-Street Occupancy by Hour (Weekday vs. Weekend)



B. Peak Hour Occupancy – Heat Map

Figures U and **V** (pages 47 and 48) illustrate peak hours for each of the survey days in a "heat map" format. There are a total of 132 block faces in the study area. Twenty-seven block faces, 21% of the total; do not allow parking (shown in brown on the heat maps). Eight (8) block faces during the weekday and ten (10) block faces during the weekend, 6% and 8% of the total, respectively; were unavailable for parking due to construction (shown as blue on the heat maps).[23] This leaves 97 and 95 block faces where parking was allowed or available during the weekday and weekend, respectively.

[23] Some portions of High Street were temporarily restricted on the study days, but traffic was allowed on the street. Paving was underway, so any portion that caused traffic to slow was a momentary restriction, not a closure (i.e., think flagger). Paving was

Weekday

As **Figure U** illustrates, five (5) of the 97 block faces that allow parking (5%) are constrained during the weekday peak hour, shown in red on the heat map. None of these block faces are clustered together, rather they are distributed throughout the study area. This indicates there were not any demand hot spots, particularly as nearby adjacent block faces indicate low demand, primarily green on the heat map. Low occupancy block faces (green) represent just over 75% of all the block faces (73) in the study area.

Weekend

As **Figure V** illustrates, six (6) of the 95 block faces that allow parking (6%) are constrained during the weekend peak hour, shown in red on the heat map. Three of the six constrained block faces are located on the city block bounded by 3rd and 4th Streets between Center Street and the bluff. Nonetheless, these constrained block faces are proximate (within one block face or across the street) to empty on-street parking. Just over 70% of all block faces (68) have parking readily available, shown in green on the heat map.

Overall, on-street parking demand in the Bluff study area is low, when evaluated against industry performance categories described in **Section III**. Access to any destination within the study area can be accessed conveniently and proximately throughout the operating day.

fluid and incrementally moved from one block to another over the course of both study days. The # of stalls "closed" remained constant (about 60 both days), but traffic/cars could continually move along High Street. Also, none of the other numbered side streets were affected 2nd, 3rd, 4th, 5th, 6th, 7th, and 8th. Overall, traffic was allowed to move along High Street, just slower, so traffic could move through, and parking demand had easy access to proximate on-street parking off the incremental restricted portions of High street, simply a left or right onto a numbered street.

Figure U: Weekday Bluff Peak Hour Heat Map (2021)

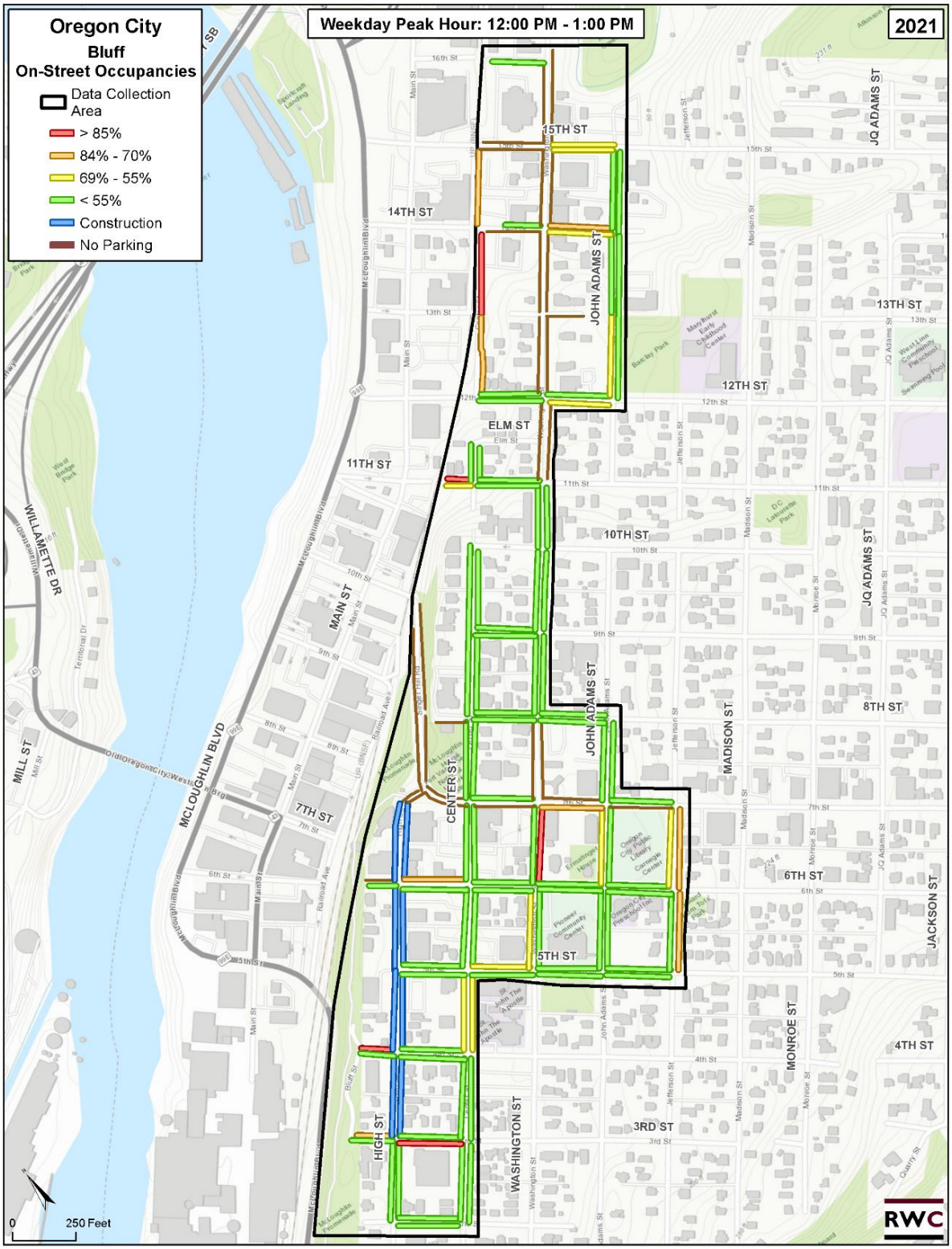
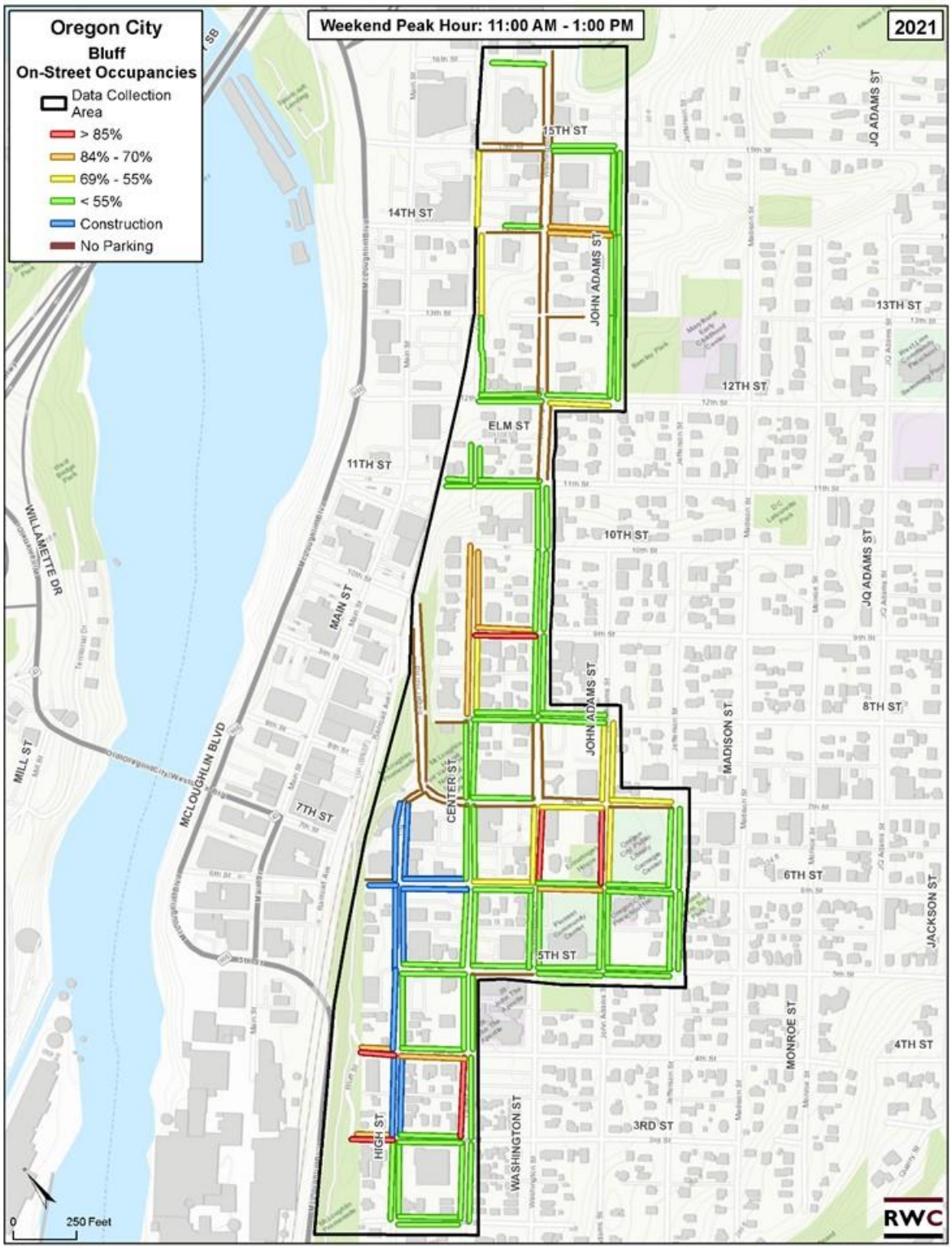


Figure V: Weekend Bluff Peak Hour Heat Map (2021)



C. Utilization and Other Use Characteristics

Table 13 (next page) summarizes 2021 parking use patterns for each stall type during a typical weekday and weekend. Performance metrics include peak hour, peak occupancy, number of empty stalls, average length of stay, and violation rate.

- The **peak hour** for the on-street supply during the weekday was from 12:00 PM to 1:00 PM.
- The **peak hour** for the on-street supply during the weekend spanned from 11:00 AM to 1:00 PM.
- **Occupancy rates** were significantly lower during the weekend (31.5%) compared to the weekday (42.8%), though both days can be characterized as low use/demand.
- The **average length of stay** was 3 hours 15 minutes during the weekday and 3 hours 22 minutes during the weekend (7 minutes longer during the weekend).
- **Violation rates** are above industry best-practice targets of 5% to 7% for both survey days. The weekday violation rate is 12.2% and the weekend violation rate is 14.0%.
- The **average length of stay** in 2-Hour signed stalls exceeds two hours during both study days, which explains the high violation rate.
- Four hour metered stalls show the highest peak occupancy of both study days during the weekend, peaking at 100.0% (at capacity). This metric, however, represents just seven (7) such stalls.
- During both study days, Red Permit stalls show the next highest peak occupancies of 88.2% during the weekday (constrained) and 76.5% during the weekend (efficient usage).
- 4-Hour metered stalls show a shorter duration of stay on average during the weekend, indicating an insufficient time stay based on user need. Reducing the number of these stalls by converting them to 2- or 3-Hour time stays may be appropriate.
- The permit system as well as No Limit stalls show much longer durations of stay on average (not including Purple Permit stalls during the weekend), ranging from 4 hours 17 minutes to 6 hours 9 minutes between both study days. This is typical of employee permit use.
- There is an abundance of empty parking in the on-street system, ranging from 457 empty stalls (weekday) to 538 (weekend). This provides a large supply capable of absorbing a great deal of potential new growth.

Table 13: Bluff On-Street Parking Utilization (**Weekday vs.** Weekend)

Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls	Average Length of Stay[24]	Violation Rate
On-Street Supply Studied	837	**12:00 PM – 1:00 PM** 11:00 AM – 1:00 PM	**42.8%** 31.5%	**457** 538	**3:15 hours** 3:22 hours	**12.2%** 14.0%
15 Minutes Signed	3	**12:00 PM – 1:00 PM** multiple	**66.7%** 33.3%	**1** 2	- -	- -
30 Minutes Signed	9	**12:00 PM – 1:00 PM** 12:00 PM – 1:00 PM	**55.6%** 55.6%	**4** 4	- -	- 4.0%
2 Hours Signed	348	**12:00 PM – 1:00 PM** 11:00 AM – 12:00 PM	**37.9%** 40.7%	**193** 181	**2:27 hours** 2:42 hours	**25.6%** 27.8%
4 Hours Metered	7	- 2:00 PM – 4:00 PM	- 100.0%	**7** -	- 2:00 hours	- -
ADA accessible	5	**multiple** multiple	**40.0%** 25.0%	**3** 3	**1:09 hours** 1:00 hours	- -
Elevator Staff Parking	1	- -	- -	**1** 1	- -	- -
Purple Permit	23	**10:00 AM – 12:00 PM** 10:00 AM – 11:00 AM	**30.4%** 17.4%	**16** 19	**5:10 hours** 1:44 hours	- -
Red Permit	17	**multiple** 3:00 PM – 4:00 PM	**88.2%** 76.5%	**2** 4	**6:09 hours** 4:28 hours	- -
No Limit	424	**12:00 PM – 1:00 PM** 5:00 PM – 6:00 PM	**46.6%** 29.2%	**226** 305	**4:17 hours** 4:36 hours	- -

[24] Average duration is filtered to show non-permit users only (ADA accessible, No Limit, and all permit only stalls exempt) when each stall type is enforced (On-Street Supply Studied and No Limit exempt).

Table 14 compares additional weekday and weekend on-street performance metrics, including number of vehicles accessing the system, turnover rate, number of vehicles moving between stalls, and long-term use of short-term stalls.

Table 14: Summary of Bluff On-Street Parking Use Characteristics (**Weekday vs.** Weekend)

Use Characteristics	All Users	Non-Permit Users	Permit Users
Vehicle Trips	**911** 649	**883** 638	**28** 11
Turnover Rate	**3.01** 2.93	**3.08** 2.96	**1.76** 1.80
Vehicles parking for 5 or more hours in time limited stalls (% of vehicle trips)	- -	**195 (23.1%)** 143 (23.1%)	- -
Vehicles moving between stalls: re-parking (% of vehicle trips)	**27 (3.0%)** 5 (< 1%)	- -	- -

1. Number of Unique Vehicles

During the weekday survey, 911 unique vehicle trips were recorded on-street between 8:00 AM and 7:00 PM. This translates to 83 vehicles arriving each hour over the course of an average weekday. During the weekend, 649 vehicle trips were recorded, an average of 59 vehicles arriving each hour. Overall, the weekday vehicle load is 262 vehicles greater than the weekend (a 40% increase).

2. Turnover: Efficiency of the Parking System

The Bluff on-street parking system maintains an average turnover rate of 3.01 for all users during the weekday and 2.93 during the weekend. In addition, the turnover rate for non-permit users is 3.08 and 2.96 during the weekday and weekend, respectively. Whether the parking activity is filtered for non-permit users, the on-street parking system does not exceed the 5.0 standard, indicating an inefficient system during both study days. However, low demand suggests that low turnover is not negatively impacting visitor/user access to the on-street parking. Any future reductions in on-street permits and No Limit stalls would improve this rate.

3. Excessive Time Stay

The number of vehicles parked in time-limited stalls for five hours or more totaled 195 (weekday) and 143 (weekend). This represents 23.1% of all vehicle trips observed for both study days. It is likely that these vehicles belong to employees and residents who do not have permits.

4. Moving Between Stalls

On the survey days, 27 (weekday) and 5 (weekend) vehicles were documented moving between parking stalls, representing 3.0% and less than 1% of all unique vehicle trips to the on-street system. These numbers are small, however, moving these vehicles into the off-street system would reduce abuse of short-term stalls and improve turnover and visitor access on-street.

XII: BLUFF – CHARACTERISTICS OF OFF-STREET PARKING

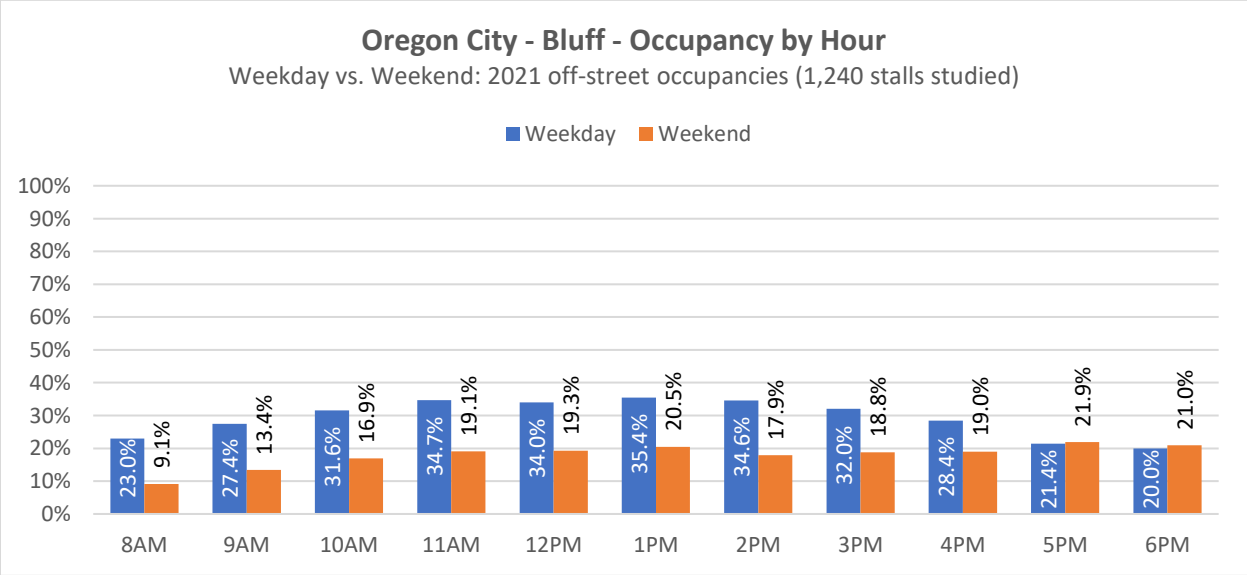
A. Occupancy by Hour - Weekday vs. Weekend

The 2021 off-street system includes 1,366 stalls on 73 sites in the Bluff. However, the sample that was studied (91% of the supply) includes 1,240 stalls on 56 sites. A summary of each of these sites catalogued by use type is provided in Error! Reference source not found. (next page).

Figure W compares hourly occupancies between the weekday and weekend surveys of the off-street lots.

- The weekday peak occupancy is 35.4% and occurs between 1:00 PM and 2:00 PM.
- The weekend peak occupancy is 21.9% and occurs between 5:00 PM and 6:00 PM (13.5% lower than the weekday).
- Hourly occupancy rates are higher in nine (9) of the 11 hours studied during the weekday compared to the weekend.
- Both study day occupancy rates are not constrained and show ample room to absorb additional vehicles.
- At the weekday peak hour, 449 vehicles are parked, leaving 791 stalls empty. At the weekend peak hour, 283 vehicles are parked, leaving 957 stalls empty. Both days yield surplus space to which existing or new users could be directed.

Figure W: 2021 Bluff Off-Street Occupancies by Hour (Weekday vs. Weekend)



B. 2021 Off-Street Occupancies by Land Use Type (Weekday vs. Weekend)

Table 15 provides usage information for all 56 off-street lots surveyed in the Bluff study area categorized by their land use types, contrasting the weekday and weekend supply. Cumulative numbers for the entire off-street system are summarized at the beginning of the table. Metrics include peak occupancy hours, site totals, stall totals, and the number of empty stalls at the peak hour.[25]

Table 15: Bluff Area Off-Street Parking Occupancies by Land Use Type – **Weekday** vs. Weekend

Use Type	Sites Studied	Stalls Studied	Peak Hour	Peak Occupancy	Empty Stalls
Off-Street Supply[26]	56	1,240	**1:00 PM - 2:00 PM** 5:00 PM - 6:00 PM	**35.4%** 21.9%	**791** 957
Event Venue	2	128	**12:00 PM - 1:00 PM** 6:00 PM - 7:00 PM	**32.0%** 46.1%	**87** 69
Institution	8	307	**2:00 PM - 3:00 PM** 11:00 AM - 12:00 PM	**26.1%** 11.7%	**227** 271
Medical	5	86	**11:00 AM - 12:00 PM** 10:00 AM - 11:00 AM	**55.8%** 14.0%	**38** 74
Mixed Use	6	145	**2:00 PM - 3:00 PM** 5:00 PM - 6:00 PM	**44.1%** 32.4%	**81** 98
Office	14	244	**11:00 AM - 12:00 PM** 8:00 AM - 9:00 AM	**31.0%** 4.8%	**158** 218
Permit	1	8	**3:00 PM - 5:00 PM** 9:00 AM - 10:00 AM	**62.5%** 87.5%	**3** 1
Private	1	22	**4:00 PM - 5:00 PM** 2:00 PM - 4:00 PM	**50.0%** 45.5%	**11** 12
Reserved	1	21	**multiple** 10:00 AM - 11:00 AM	**81.0%** 42.9%	**4** 12
Residential	5	57	**9:00 AM - 11:00 AM** 9:00 AM - 10:00 AM	**56.1%** 57.9%	**25** 24
Retail	11	192	**6:00 PM - 7:00 PM** 1:00 PM - 2:00 PM	**53.1%** 44.8%	**90** 106
Service	1	15	**11:00 AM - 12:00 PM** multiple	**53.3%** 53.3%	**7** 7
Undesignated	1	15	**2:00 PM - 4:00 PM** -	**53.3%** -	**7** 15

[25] A table that summarizes each unique off-street site (by lot number) for the 2021 supply is provided in **Appendix A**.

[26] When extrapolated to the total off-street Bluff parking supply (73 sites/ 1,366 stalls), the weekday peak hour (1:00 PM) leaves approximately 882 stalls available while the weekend peak hour (5:00 PM) leaves 1,067 available.

- The weekday peak hour for the off-street supply was from 1:00 PM to 2:00 PM, while the weekend peak hour was from 5:00 PM to 6:00 PM.
- Occupancy rates were significantly lower during the weekend (21.9%) compared to the weekday (35.4%). Both days occupancy demand is low, per performance standards described in **Section III**.
- During the weekday, the Reserved use type had the highest peak hour (81.0%), but this only accounts for one site with 21 total parking stalls. The use type with the most vehicles parked in it during its peak hour was Retail with 102 vehicles (53.1% peak occupancy).
- During the weekend, the Permit land use type had the highest peak hour (87.5%), but this only accounts for five (5) parked vehicles. The land use type with the most vehicles parked in it during the weekend peak hour was Retail with 86 vehicles (44.8% peak occupancy).
- For the most part, all lot types operate at a low level of demand, though some approach the moderate demand performance standard (> 55%).

C. Peak Hour Occupancy – Heat Map (Weekday vs Weekend)

Figures X and **Y** (below) illustrate peak hours for each of the off-street survey days in a "heat map" format.

Weekday

As **Figure X** illustrates, weekday off-street parking is only constrained in three (3) of the 56 sites studied, all of which are north of 13th Street (Lots 87, 93, and 102). Off-street parking opportunities are available within walking distance to most areas of the Bluff. At present, these lots may not allow for general users or non-accessory employees to access them. However, off-street stalls are empty at the peak hour and efforts to augment current shared use parking efforts should be continued.

Weekend

As **Figure Y** illustrates, there are no constrained off-street parking lots in the study zone. Five (5) of the 56 sites studied are efficiently park (70% to 84% occupied), all of which are north of 11th Street (Lots 83, 87, 89, 102, and 118). Off-street parking opportunities are available within walking distance to most areas of downtown. At present, these lots may not allow for general users or non-accessory employees to access them. However, off-street stalls are empty at the peak hour and efforts to augment current shared use parking efforts should be continued.

Figure X: Weekday Bluff Off-Street Peak Hour Heat Map (2021)

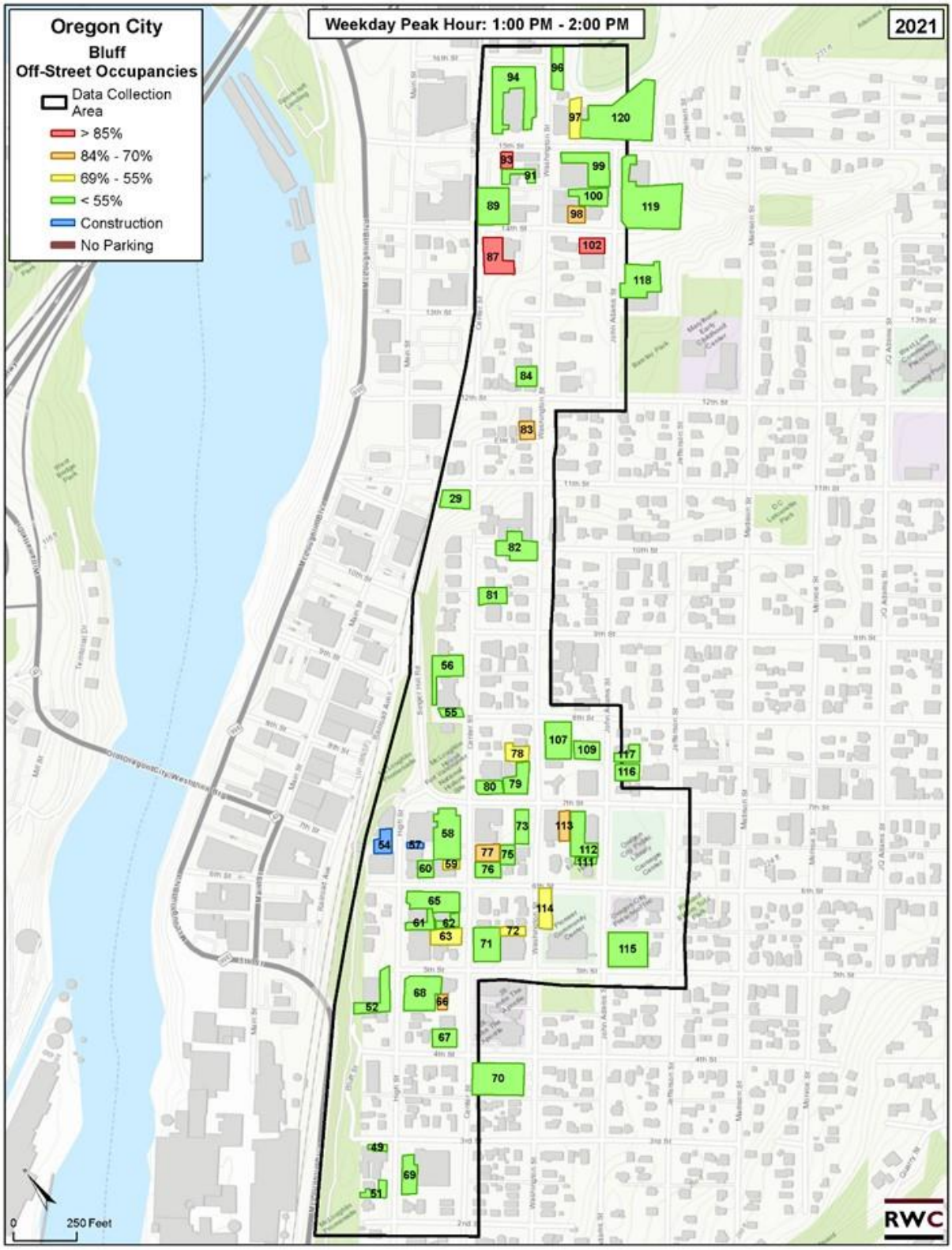
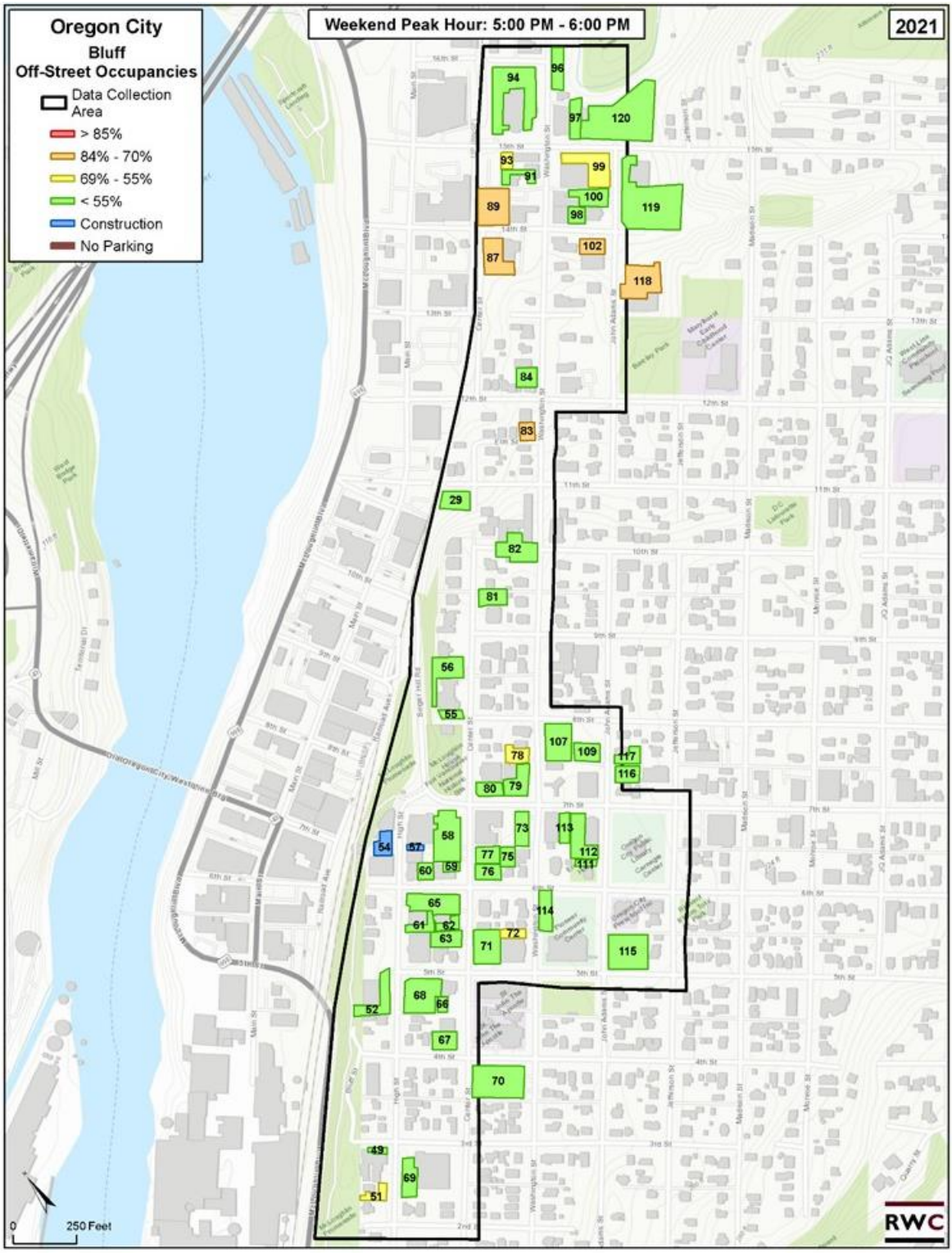


Figure Y: Weekend Off-Street Peak Hour Heat Map (2021)



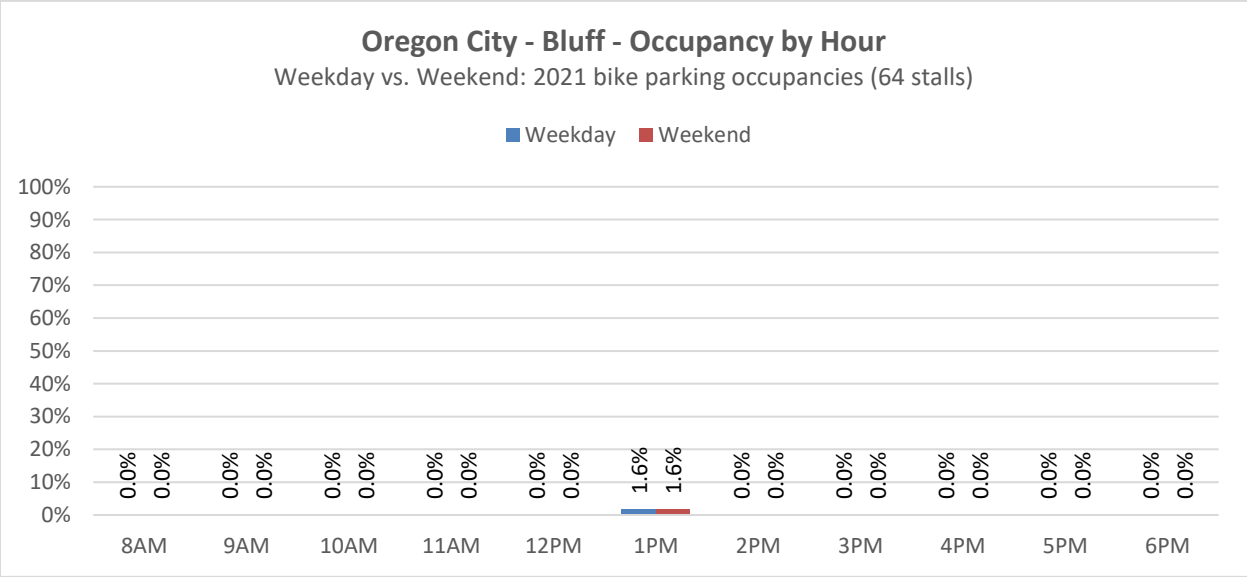
XIII: BLUFF– CHARACTERISTICS OF BICYCLE PARKING

A. Occupancy by Hour – Weekday vs. Weekend

Figure Z compares hourly occupancies between the weekday and weekend surveys of the bicycle parking.

- The weekday peak occupancy is 1.6% and occurs between 1:00 PM and 2:00 PM (the same as the weekend).
- Hourly occupancies are 0% for 10 of the 11 hours studied during the weekday and weekend.
- At their peaks, both days only account for one (1) bicycle parked.
- While the total bicycle capacity in the Bluff is low (64), there almost zero use for all 11 hours of the study days, leaving ample room for people to park their bikes as demand increases over time.

Figure Z: Bluff Bicycle Occupancies by Hour (Weekday vs. Weekend)



XIV. SUMMARY

The dynamics of parking in downtown Oregon City have remained largely similar from 2016 to 2021. Peak hour occupancies in the study area remain low to moderate with the parking occupancies having decreased an average of four percent since the 2016 study. Parking is readily available throughout much of the Downtown and on the Bluff, both on and off-street.

The downtown combined (on and off-street systems) occupancy decreased slightly (57.9% to 53.5%) from 2016 to 2021. Since 2016, the downtown has added more permitted and No Limit (unlimited time stay) stalls on-street, resulting in a weaker turnover rate with vehicles parking slightly longer. Noting a decrease in peak hour on-street occupancies from 66.2% to 60.0% during the weekday, the number of vehicle trips to downtown has also dropped from 1,382 to 1,189. However, despite a decrease in the weekend peak hour occupancies from 59.5% to 57.8%, the number of vehicle trips to downtown during the weekend has slightly increased from 1,081 to 1,111, a positive sign of economic growth.

The dynamics of parking in the Bluff area, from weekday to weekend, show that parking is readily available with low peak occupancies. The Bluff's combined (on and off-street systems) occupancy peaked at 36.8% during the weekday as compared to the weekend peak 23.7%.

With a capacity of 125 bicycle parking stalls and low occupancy rates, the bicycle parking is currently more than ample. Downtown use rates are slightly higher than that of the bicycle parking occupancy on the Bluff.

With the impact of COVID-19, vehicular parking occupancy rates did see a slight decrease. However, there were signs of resurgence with an increase in vehicle trips to downtown and a slight uptick in dinner time activity. Minor time stay changes may improve the overall parking system. Additional enforcement may also be needed, as violation rates were high throughout the study area.

APPENDIX

2021 Off-Street Occupancies by Lot – **Weekday** **vs.** Weekend[27]

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
1	New Hing's - Customer Parking	7	**multiple** 5:00 PM - 7:00 PM	**100.0%** 128.6%	- -2	Retail
2	Larry Morton's Transmission Service - Employee's Only	12	- -	- -	- -	Retail
3	Larry Morton's Transmission Service - Customer's Only	4	- -	- -	- -	Retail
4	Communications Northwest	3	- -	- -	- -	Service
5	Private/ Reserved Parking/ Grand Ballroom	41	**12:00 PM - 1:00 PM** 12:00 PM - 2:00 PM	**61.0%** 29.3%	**16** 29	Mixed Use
6	720 Law Offices - Reserved	7	**11:00 AM - 12:00 PM** 10:00 AM - 11:00 AM	**100.0%** 14.3%	- 6	Office
7	Permit Parking (white striped spaces)	21	**multiple** 5:00 PM - 6:00 PM	**57.1%** 28.6%	**9** 15	Permit
8	Reserved Parking (yellow striped spaces)	20	**multiple** 1:00 PM - 2:00 PM	**60.0%** 25.0%	**8** 15	Reserved
9	Five Zero + Trees (back side)	2	- -	- -	- -	Retail
10	Private Parking - Restricted Lot	48	**9:00 AM - 11:00 AM** 4:00 PM - 5:00 PM	**60.4%** 6.3%	**19** 45	Private
11	Blue Zone Permit Parking	6	**4:00 PM - 5:00 PM** 5:00 PM - 7:00 PM	**100.0%** 50.0%	- 3	Permit
12	Clackamas County and McMenamins Only	25	**multiple** 1:00 PM - 2:00 PM	**80.0%** 64.0%	**5** 9	Mixed Use
13	River Crossing Professional Center - Office/ Public Parking (after hours)	45	**10:00 AM - 11:00 AM** 11:00 AM - 12:00 PM	**55.6%** 31.1%	**20** 31	Mixed Use
14	Vacant Lot - No Parking	11	- -	- -	- -	Undesignated
15	Clackamas County - Children, Family, and Community Corrections	23	**2:00 PM - 3:00 PM** 10:00 AM - 11:00 AM	**87.0%** 65.2%	**3** 8	Office
16	Clackamas Auto Parts	7	**2:00 PM - 3:00 PM** 11:00 AM - 12:00 PM	**100.0%** 100.0%	- -	Retail
17	Chevron Gas Station	6	**multiple** multiple	**66.7%** 66.7%	**2** 2	Retail
18	KFC Restaurant	24	**2:00 PM - 3:00 PM**	**62.5%**	**9**	Retail

[27] Off-Street facilities highlighted red were not collected on the study days.

[28] Off-Street facilities within the thick bold border (lot number 49 to 120) are in the Bluff study area.

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
			11:00 AM - 12:00 PM	45.8%	13	
19	76 Gas Station	7	**multiple** 1:00 PM - 4:00 PM	**14.3%** 28.6%	**6** 5	Retail
20	Leer Truck Accessories	18	**multiple** multiple	**22.2%** 22.2%	**14** 14	Retail
21	Subaru Dealership - Customer/Office Parking	6	**12:00 PM - 1:00 PM** multiple	**100.0%** 66.7%	**-** 2	Retail
22	Trail's End Saloon	13	**multiple** 2:00 PM - 3:00 PM	**30.8%** 69.2%	**9** 4	Retail
23	Catherine Healy House	5	**multiple** 10:00 AM - 11:00 AM	**80.0%** 20.0%	**1** 4	Residential
24	Unknown Lot - Gravel	15	**1:00 PM - 2:00 PM** 3:00 PM - 4:00 PM	**73.3%** 33.3%	**4** 10	Undesignated
25	Municipal Lot - Pay by Day/ Permit	93	**5:00 PM - 6:00 PM** 3:00 PM - 5:00 PM	**44.1%** 33.3%	**52** 62	Public
26	Community Corrections - Employee/Permit Parking	36	**11:00 AM - 12:00 PM** 2:00 PM - 6:00 PM	**63.9%** 30.6%	**13** 25	Office
27	Purple Zone Permit Parking (7am - 6pm/ Monday - Friday)	4	**10:00 AM - 1:00 PM** 4:00 PM - 5:00 PM	**50.0%** 150.0%	**2** -2	Permit
28	2 Hour Parking/ A Sign Company/ Notary Public	6	**4:00 PM - 5:00 PM** multiple	**116.7%** 16.7%	**-1** 5	Mixed Use
29	Community Corrections - Gravel Lot	15	**2:00 PM - 4:00 PM** 8:00 AM - 7:00 PM	**53.3%** -	**7** 15	Undesignated
30	Dutch Bros	4	**12:00 PM - 1:00 PM** 8:00 AM - 6:00 PM	**25.0%** -	**3** 4	Retail
31	Oregon City Sporting Goods Inc	8	**multiple** multiple	**62.5%** 75.0%	**3** 2	Retail
32	Community Corrections - Permit Parking	24	**multiple** 4:00 PM - 7:00 PM	**95.8%** 8.3%	**1** 22	Office
33	Permit Parking	15	**multiple** 2:00 PM - 4:00 PM	**80.0%** 40.0%	**3** 9	Permit
34	Express Employment Professionals/ Coffee Rush	5	**multiple** multiple	**80.0%** 80.0%	**1** 1	Mixed Use
35	Access Endodontics - Customer Parking	15	**8:00 AM - 9:00 AM** 10:00 AM - 11:00 AM	**66.7%** 46.7%	**5** 8	Retail
36	Modified Inc - Visitor/Reserved Parking	16	**multiple** multiple	**100.0%** 68.8%	**-** 5	Retail
37	Permit Parking (Gravel/Concrete)	22	**1:00 PM - 2:00 PM** multiple	**4.5%** 9.1%	**21** 20	Permit
38	Tom Busch - Customer Parking	16	**3:00 PM - 4:00 PM** 3:00 PM - 7:00 PM	**62.5%** 50.0%	**6** 8	Retail
39		13	**2:00 PM - 3:00 PM**	**61.5%**	**5**	Retail

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	CD/ McAnulty and Barry/ Shop Alera/ The Nail Spa/ Modele Salon - Reserved Parking		1:00 PM - 2:00 PM	61.5%	5	
40	Unknown Lot	3	**multiple** 5:00 PM - 7:00 PM	**100.0%** 166.7%	- -2	Undesignated
41	Commstructure Consulting, LLC - Employee Parking	8	**multiple** 8:00 AM - 7:00 PM	**25.0%** -	**6** 8	Office
42	Permit Parking - behind Mesa Fresca	17	**1:00 PM - 2:00 PM** multiple	**41.2%** 11.8%	**10** 15	Permit
43	Reserved Parking - behind Pho Thi/Root and Stem Plants	25	**1:00 PM - 2:00 PM** 2:00 PM - 3:00 PM	**64.0%** 32.0%	**9** 17	Reserved
44	Private Parking	39	**1:00 PM - 2:00 PM** 1:00 PM - 2:00 PM	**48.7%** 33.3%	**20** 26	Private
45	Private Parking	9	**4:00 PM - 5:00 PM** 3:00 PM - 5:00 PM	**55.6%** 44.4%	**4** 5	Private
46	Territorial Building - Customer Parking	31	**2:00 PM - 4:00 PM** 1:00 PM - 2:00 PM	**58.1%** 22.6%	**13** 24	Office
47	MOVE Real Estate	3	**1:00 PM - 2:00 PM** multiple	**166.7%** 33.3%	**-2** 2	Office
48	Private Parking	15	**8:00 AM - 3:00 PM** 8:00 AM - 7:00 PM	**13.3%** -	**13** 15	Private
49	Capitol Mart	5	**multiple** 2:00 PM - 3:00 PM	**20.0%** 40.0%	**4** 3	Retail
50	Auto Shop Northwest	2	- -	- -	- -	Retail
51	Residential - Tenant Parking	10	**9:00 AM - 2:00 PM** multiple	**40.0%** 60.0%	**6** 4	Residential
52	Promenade Building - Premier Northwest Insurance	21	**12:00 PM - 1:00 PM** 8:00 AM - 7:00 PM	**23.8%** -	**16** 21	Office
53	Kari Mitchell Accounting, PC (undercover)	3	- -	- -	- -	Office
54	Elevate Plaza - Elevate Wealth Advisors/ Safe Harbor Solutions	10	**Construction** Construction	- -	- -	Office
55	Permit Parking	8	**3:00 PM - 5:00 PM** 9:00 AM - 10:00 AM	**62.5%** 87.5%	**3** 1	Permit
56	Victory Church	24	**1:00 PM - 2:00 PM** multiple	**29.2%** 20.8%	**17** 19	Institution
57	Neurotherapeutic Pediatric Therapies, Inc - Staff Parking Only	5	**Construction** Construction	- -	- -	Office
58		40	**2:00 PM - 3:00 PM**	**65.0%**	**14**	Mixed Use

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	City Hall - Patrons and Staff Only/ Free after hours		multiple	7.5%	37	
59	Radiant Family Dentistry	5	**8:00 AM - 2:00 PM** 8:00 AM - 7:00 PM	**60.0%** -	**2** 5	Medical
60	Ronald Laughlin Attorney - Authorized Parking Only	9	**8:00 AM - 7:00 PM** 8:00 AM - 7:00 PM	**-** -	**9** 9	Office
61	Mertie Stevens - Private Parking	10	**1:00 PM - 2:00 PM** 8:00 AM - 1:00 PM	**40.0%** 10.0%	**6** 9	Office
62	Simmons and Associates Insurance	8	**multiple** 1:00 PM - 5:00 PM	**25.0%** 12.5%	**6** 7	Office
63	Worksource Clackamas - Client/Staff Parking	19	**9:00 AM - 12:00 PM** 12:00 PM - 1:00 PM	**78.9%** 10.5%	**4** 17	Office
64	Law Office - 411 5th St	3	- -	- -	- -	Office
65	RiverView Professional Center	42	**11:00 AM - 12:00 PM** 8:00 AM - 7:00 PM	**40.5%** -	**25** 42	Office
66	illume Property Management	5	**multiple** 8:00 AM - 7:00 PM	**80.0%** -	**1** 5	Office
67	The Temple of Justice	12	**11:00 AM - 1:00 PM** 8:00 AM - 6:00 PM	**33.3%** -	**8** 12	Institution
68	Promenade Building - Tenants/Clients Only	48	**2:00 PM - 3:00 PM** 8:00 AM - 7:00 PM	**41.7%** 2.1%	**28** 47	Office
69	CenturyLink	10	**11:00 AM - 12:00 PM** 4:00 PM - 5:00 PM	**60.0%** 20.0%	**4** 8	Retail
70	St John the Apostle Catholic Church (SJA) - Private Parking	88	**9:00 AM - 10:00 AM** 5:00 PM - 6:00 PM	**35.2%** 17.0%	**57** 73	Institution
71	Worksource Clackamas	38	**9:00 AM - 10:00 AM** 8:00 AM - 3:00 PM	**18.4%** 5.3%	**31** 36	Office
72	Apartment Complex - 505 Washington St	9	**4:00 PM - 7:00 PM** 10:00 AM - 12:00 PM	**77.8%** 100.0%	**2** -	Residential
73	Spine Intervention/ Able Hearing/ Oregon Aesthetics/ Barber Shop/ Howell's Restaurant/ Wally's Music	21	**multiple** 10:00 AM - 11:00 AM	**38.1%** 52.4%	**13** 10	Mixed Use
74	Private Parking	2	- -	- -	- -	Private
75	Wally's Music/ Howell's Restaurant	15	**12:00 PM - 1:00 PM** 10:00 AM - 11:00 AM	**53.3%** 46.7%	**7** 8	Retail
76	Private Lot	22	**4:00 PM - 5:00 PM** 2:00 PM - 4:00 PM	**50.0%** 45.5%	**11** 12	Private
77	Reserved Lot	21	**multiple** 10:00 AM - 11:00 AM	**81.0%** 42.9%	**4** 12	Reserved
78	Singer Hill Court - Apartments	15	**multiple** multiple	**66.7%** 73.3%	**5** 4	Residential

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
79	7-Eleven	11	**11:00 AM - 12:00 PM** 12:00 PM - 1:00 PM	**54.5%** 45.5%	**5** 6	Retail
80	FIAL Incorporated - Private Parking	12	**1:00 PM - 4:00 PM** 8:00 AM - 7:00 PM	**41.7%** 8.3%	**7** 11	Office
81	Living Word, Adventist Church	13	**2:00 PM - 3:00 PM** 11:00 AM - 2:00 PM	**38.5%** 153.8%	**8** -7	Institution
82	Oregon City Residential Care Center	15	**9:00 AM - 11:00 AM** 2:00 PM - 3:00 PM	**40.0%** 20.0%	**9** 12	Residential
83	Apartments - 1113 Washington St	8	**2:00 PM - 3:00 PM** 2:00 PM - 5:00 PM	**100.0%** 100.0%	- -	Residential
84	ProActive Cleaning Solutions	10	**11:00 AM - 5:00 PM** 8:00 AM - 9:00 AM	**10.0%** 20.0%	**9** 8	Office
85	George's Auto Service	3	- -	- -	- -	Retail
86	Reserved Parking	10	- -	- -	- -	Reserved
87	Corner 14 (Restaurant)	29	**1:00 PM - 2:00 PM** 12:00 PM - 1:00 PM	**100.0%** 100.0%	- -	Retail
88	Gated Lot (behind Oregon City Brewing Company)	20	- -	- -	- -	Undesignated
89	Oregon City Brewing Company	40	**4:00 PM - 5:00 PM** 5:00 PM - 6:00 PM	**42.5%** 70.0%	**23** 12	Retail
90	Gated Lot - Unknown	24	- -	- -	- -	Undesignated
91	Township Land Surveys - Customer Parking	7	**multiple** 8:00 AM - 9:00 AM	**42.9%** 42.9%	**4** 4	Office
92	Private Drive - Residents Only	3	- -	- -	- -	Residential
93	Auto Pros	12	**2:00 PM - 4:00 PM** 11:00 AM - 7:00 PM	**108.3%** 58.3%	**-1** 5	Retail
94	Providence - Willamette Falls Community Center	90	**4:00 PM - 5:00 PM** 4:00 PM - 6:00 PM	**26.7%** 1.1%	**66** 89	Institution
95	Undesignated - Dead End Angled Parking	5	- -	- -	- -	Undesignated
96	Oregon City Veterinary Clinic	15	**4:00 PM - 5:00 PM** 10:00 AM - 11:00 AM	**60.0%** 60.0%	**6** 6	Medical
97	Grano Bakery/ Advanced Dental/ Chinook Wood LLC/ Forte Floral Artistry/ Trails End Physical Therapy, LLC	13	**11:00 AM - 12:00 PM** multiple	**84.6%** 76.9%	**2** 3	Mixed Use
98	Elements of Style Salon and More	11	**11:00 AM - 2:00 PM** 11:00 AM - 1:00 PM	**81.8%** 90.9%	**2** 1	Retail
99		26	**12:00 PM - 1:00 PM**	**42.3%**	**15**	Event Venue

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	Abernethy Center - Grand Ballroom		5:00 PM - 6:00 PM	57.7%	11	
100	Explorer's Academy/ Public Parking after hours	19	**5:00 PM - 6:00 PM** 5:00 PM - 6:00 PM	**31.6%** 42.1%	**13** 11	Mixed Use
101	Private Drive - Residents Only	2	- -	- -	- -	Residential
102	Tonys Smoke House and Cannery	9	**12:00 PM - 1:00 PM** multiple	**111.1%** 88.9%	**-1** 1	Retail
103	The Father's Heart	4	- -	- -	- -	Institution
104	The Father's Heart	24	- -	- -	- -	Institution
105	Private Drive - Residents Only	9	- -	- -	- -	Residential
106	Plus Minus, Inc.	2	- -	- -	- -	Office
107	Super Torta (Gravel)	36	**1:00 PM - 2:00 PM** 1:00 PM - 2:00 PM	**30.6%** 27.8%	**25** 26	Retail
108	Singer Hill Building (Gravel)	6	- -	- -	- -	Retail
109	Singer Hill Building	14	**11:00 AM - 3:00 PM** 10:00 AM - 12:00 PM	**7.1%** 14.3%	**13** 12	Retail
110	Super Torta	4	- -	- -	- -	Retail
111	Library - Visitor - 2 Hour Parking	6	**11:00 AM - 12:00 PM** 11:00 AM - 12:00 PM	**66.7%** 83.3%	**2** 1	Institution
112	Clackamas Fire (Station 15)	15	**11:00 AM - 12:00 PM** multiple	**53.3%** 53.3%	**7** 7	Service
113	Library - Visitor - 2 Hour Parking/ 2 Hour General Parking (Monday-Friday)	10	**multiple** 1:00 PM - 2:00 PM	**80.0%** 80.0%	**2** 2	Mixed Use
114	Pioneer Community Center	25	**12:00 PM - 3:00 PM** 11:00 AM - 12:00 PM	**68.0%** 28.0%	**8** 18	Institution
115	Pioneer Community Center	49	**2:00 PM - 3:00 PM** 5:00 PM - 6:00 PM	**36.7%** 10.2%	**31** 44	Institution
116	Family Healing Center	9	**8:00 AM - 9:00 AM** multiple	**77.8%** 22.2%	**2** 7	Medical
117	Natural Health Works (Gravel)	7	**multiple** 8:00 AM - 7:00 PM	**57.1%** -	**3** 7	Medical
118	Lee Building/ Abernethy Chapel	42	**1:00 PM - 2:00 PM** 5:00 PM - 6:00 PM	**33.3%** 71.4%	**28** 12	Mixed Use
119	The Family Practice Clinic	50	**11:00 AM - 12:00 PM** 2:00 PM - 3:00 PM	**66.0%** 14.0%	**17** 43	Medical
120		102	**2:00 PM - 3:00 PM**	**30.4%**	**71**	Event Venue

Lot #	Facility[28]	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	Abernethy Center - Abigail's Garden		5:00 PM - 6:00 PM	36.3%	65	

Figure AA: Weekday Downtown Combined Peak Hour Heat Map (2021)

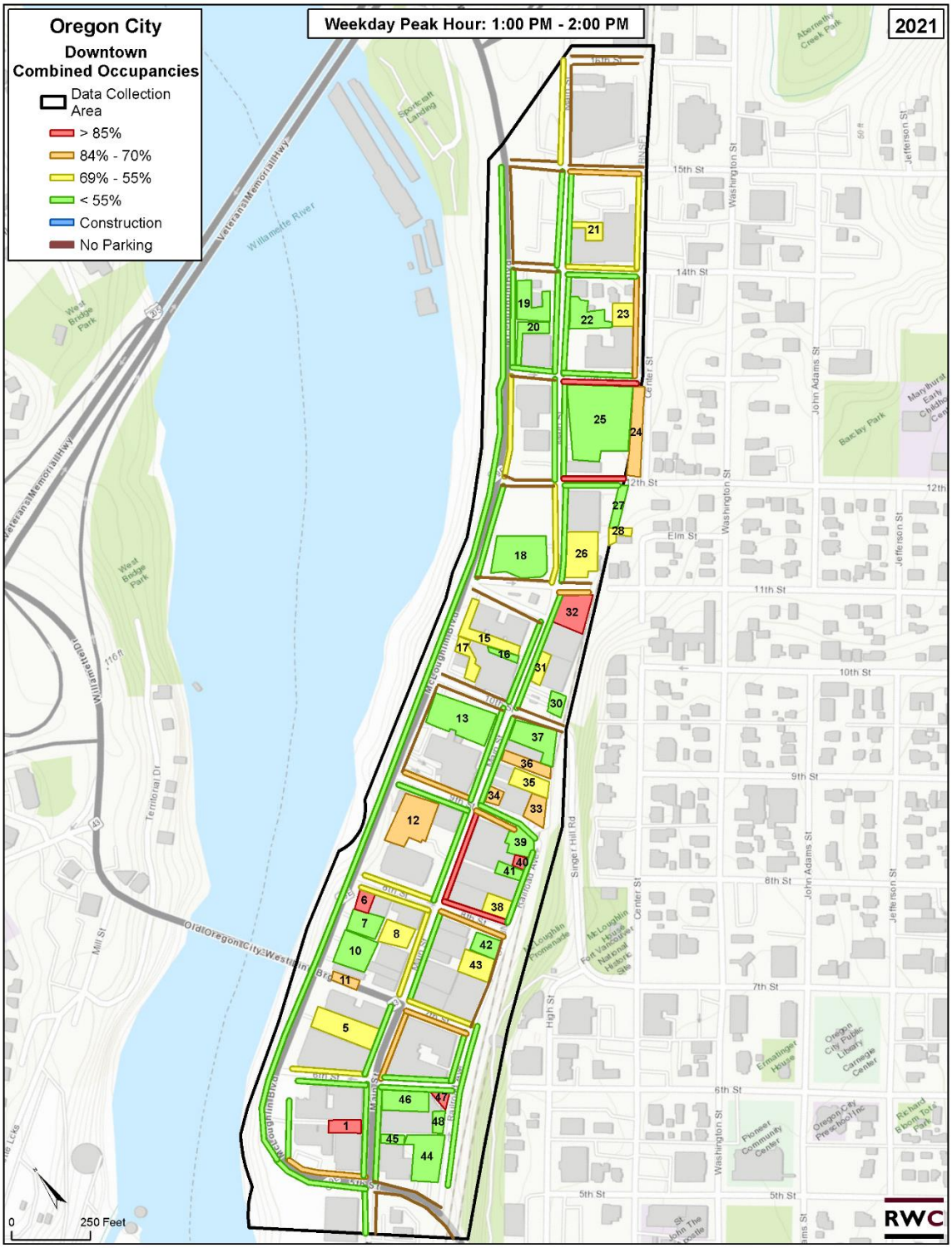


Figure AB: Weekend Downtown Combined Peak Hour Heat Map (2021)

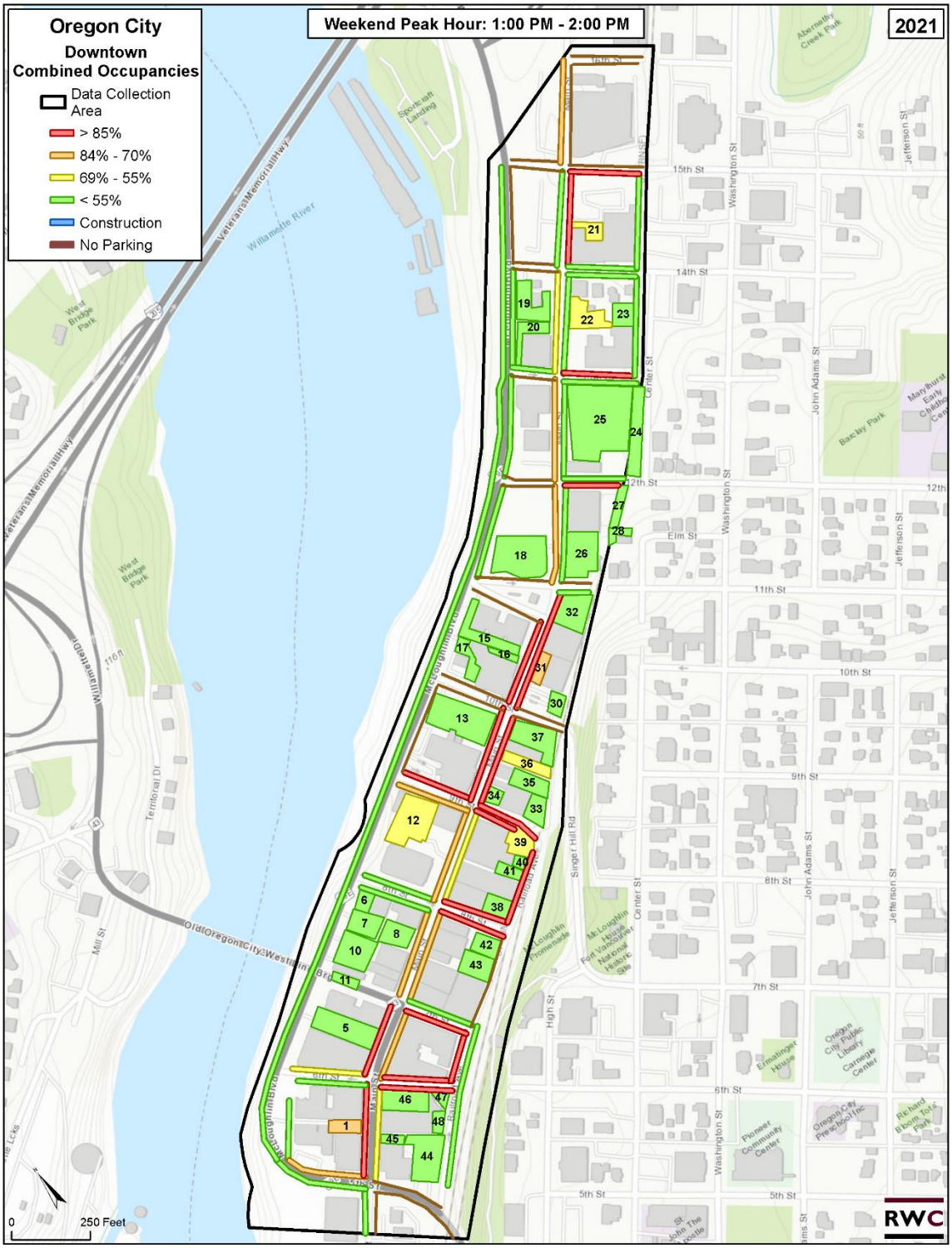


Figure AC: Weekday Bluff Combined Peak Hour Heat Map (2021)

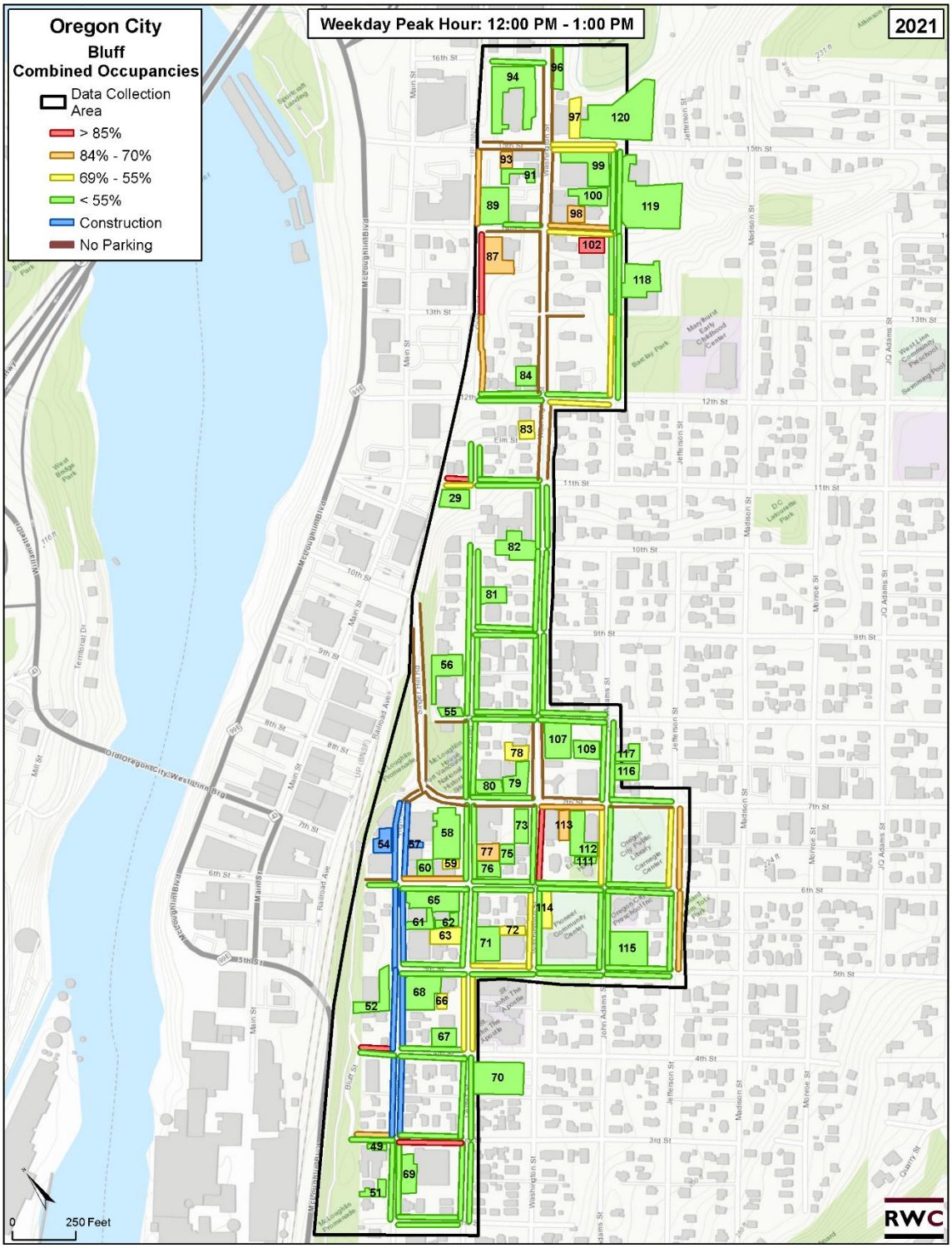


Figure AD: Weekend Bluff Combined Peak Hour Heat Map (2021)

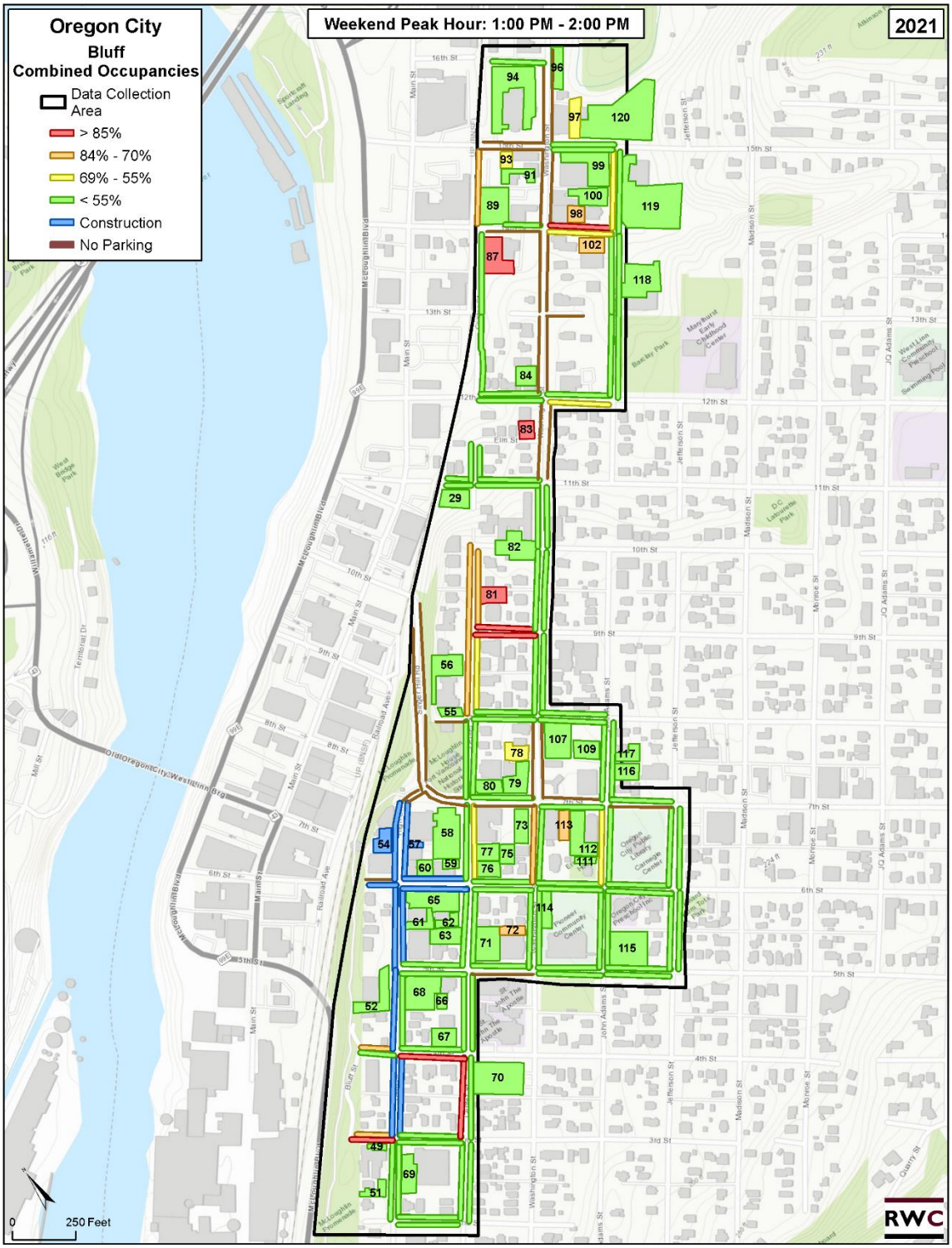


Figure FE: Bicycle Parking – Staple Structure Type (Typical Capacity: 2)

Figure AF: Bicycle Parking – Wave Structure Type (Typical Capacity: varies)

Figure AG: Bicycle Parking – Vertical Structure Type (Typical Capacity: varies)