

CITY OF NEWBERG, OREGON

**2016 City of Newberg
Summary of Parking Utilization**

DATA SUMMARY REPORT

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**2016 City of Newberg
Summary of Parking Utilization**

Table of Contents

Section I: Introduction..... 1

Section II: Executive Summary –2016 Key Findings 1

Section III: Inventory Analysis 2

Section IV: Study Area 2

Section V: Methodology 3

Section VI: Format of the Parking Supply - 2016..... 4

Section VII: Characteristics of the 2016 Parking Supply..... 6

Section VIII: Summary..... 20

ATTACHMENT A

Parking Study

Newberg Inventory Analysis – Existing Conditions

I. INTRODUCTION

The purpose of this 2016 Parking Summary Report is to derive a comprehensive and detailed understanding of actual use dynamics and access characteristics associated with parking in downtown Newberg. Metrics related to occupancy, turnover, duration of stay, and hourly patterns of activity represent industry best practices for evaluating both on and off-street parking systems. This data can assist the City in near-term decision-making on existing parking, in understanding where parking constraints and surpluses exist, and in determining whether factors such as abuse of time limits adversely affect access. The data will also aid in long-term planning for parking relative to future development.

II. EXECUTIVE SUMMARY –2016 KEY FINDINGS

Key findings from the 2016 data collection effort and analysis, as well as from the comparative analysis, are presented here. Comprehensive documentation and data supporting these findings are found in Sections VI and VII below.

A. 2016 On-Street Parking

- ✓ The format of on-street parking favors long-term stays—nearly 70% of all parking is No Limit. This is a very high percentage of the on-street system dedicated to long-term use, particularly if higher visitor activity is desired and efforts to grow ground-level businesses are pursued.
- ✓ The peak hour is between 12:00 and 1:00 PM, when stalls are 47.6% occupied. At this hour, 460 on-street stalls are occupied, leaving 500 stalls available in the study area.
- ✓ The average time stay for all on-street parkers is 2 hours 50 minutes.
- ✓ On-street turnover (3.54) falls below the standard (5.0) for a parking system designed to attract and support high activity.
- ✓ Violation rates are high (23%), though low occupancies indicate that at this time users are not being denied access in a manner that would require greater enforcement.
- ✓ Parking is readily available on-street throughout the day.

B. 2016 Off-Street Parking

- ✓ The overall occupancy of the off-street system is 47.3% at the peak hour, which occurs between 11:00 AM and 12:00 PM.
- ✓ The combined off-street system is underutilized, with up to 604 empty stalls during the peak hour (extrapolated).

- ✓ The majority of off-street parking is private: 81 of 85 lots, comprising 1,016 stalls and representing 89% of all off-street parking. Greater and more efficient use of the off-street system will require conversation and partnerships with owners of private lots.

III. INVENTORY ANALYSIS

Elements of the data collection effort and analysis included:

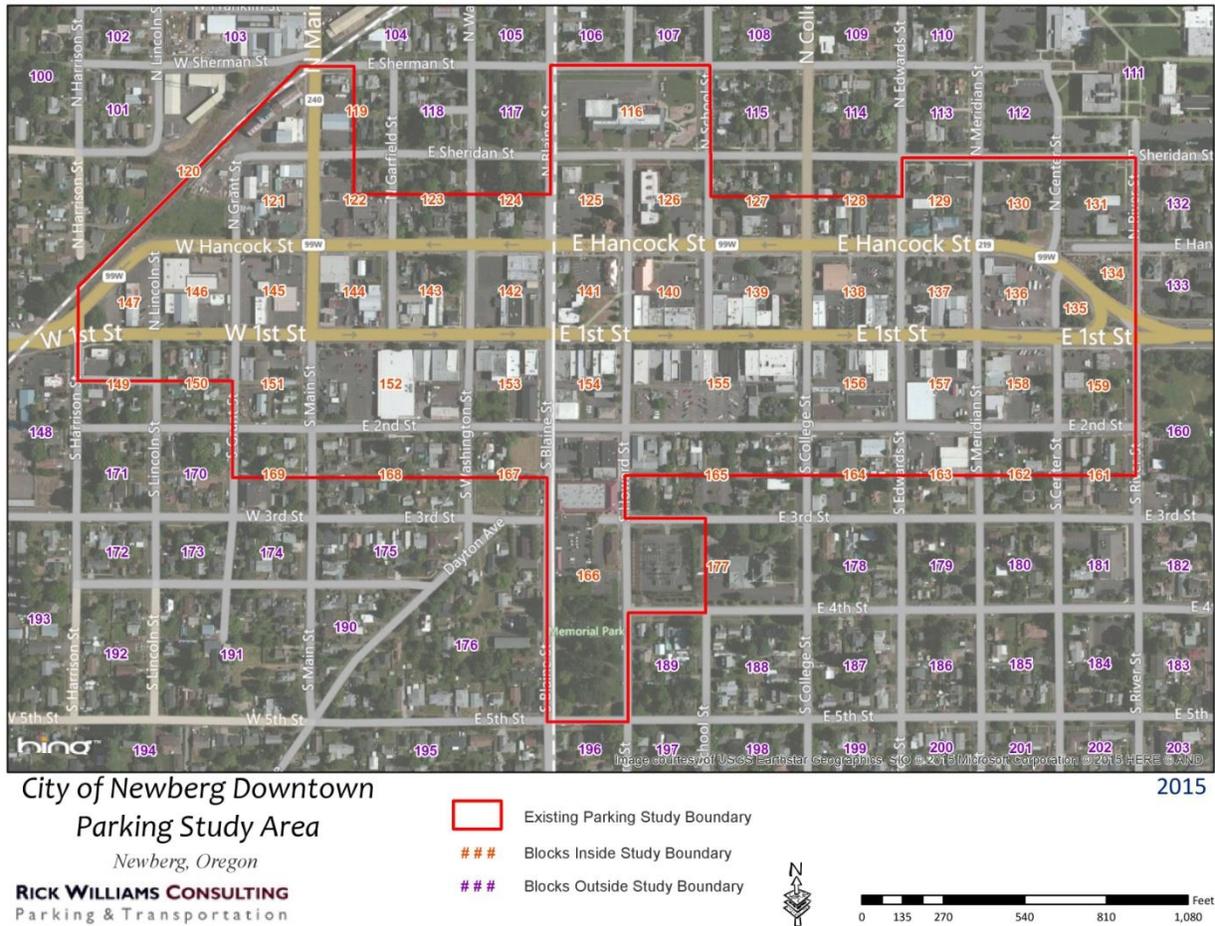
- (1) Development of a data template for all on- and off-street parking in the study area, denoting stalls by time-stay type where applicable.
- (2) A complete survey of on- and off-street parking use on a "typical day"—Wednesday, April 13, 2016¹.
- (3) Analysis of parking utilization and turnover that included:
 - a. Quantification of the parking inventory for the entire study area.
 - b. Hourly occupancy counts from 8:00 AM to 6:00 PM for the on- and off-street inventory.
 - c. Parking turnover analysis (on-street).
 - d. Parking duration-of-stay analysis (on-street).
- (4) Identification of surpluses and constraints within the parking supply.

IV. STUDY AREA

The parking inventory study area was determined during the initial project scoping process by the City of Newberg and the consultant team. It is generally bounded by S Harrison Street on the west, E 2nd Street on the south, E Sherman Street on the north and S River Street on the east. The inclusion of Memorial Park extends the southern boundary to E 5th Street. **Figure A** (next page) illustrates the study area.

¹ This date was chosen in consultation with the City of Newberg.

Figure A
Newberg Parking Study Area



The study area is in Newberg’s Downtown and is bisected by the heavily traveled 99W couplet (1st Street and E Hancock Street). With Phase 1 of the Newberg-Dundee Bypass expected to open in late 2017, congestion along this corridor will ease, creating an opportunity for the City of Newberg to reexamine its historical and commercial center.

V. METHODOLOGY

An inventory of all public parking in the study area was taken in advance of the survey. On-street stalls were identified by type (i.e., time or use restriction), block number, and block face. Off-street lots were identified by block location, number of stalls, ownership (public or private), and assumed manner of use. The resulting inventory comprised 2,106 parking stalls: 960 on-street and 1,146 off-street in 85 lots. This is further detailed in **Section VI**.

A. On-Street Data Collection

The survey involved hourly counts of occupied on-street parking stalls in the study area. Surveyors recorded the license plate numbers of parked vehicles each hour from 8:00 AM to 6:00 PM. All 960 on-street stalls were surveyed.

The survey took place on Wednesday, April 13th, 2016. The survey day was selected in consultation with the City of Newberg to represent a typical downtown weekday. The day was sunny, dry, and cool, with temperatures in the low to mid-60s).

B. Off-street Data Collection

Off-street facilities were surveyed on the same day, Wednesday, April 13th, 2016. A sample of 27 lots totaling 579 stalls was selected for data collection. This sample represents 50.5% of all off-street parking in the study area and accurately reflects the overall system in terms of type, size, and location. The distribution of the sample set is detailed in **Table 2** (page 6) below.

Occupancy counts were conducted at each lot every hour between 8:00 AM and 6:00 PM; unlike the on-street survey, however, license plate numbers were not recorded.

VI. FORMAT OF THE PARKING SUPPLY - 2016

The study area includes a total of 2,106 parking stalls, of which 960 are on-street, comprising 46% of the total parking supply. Off-street parking comprises 1,146 stalls across 85 lots and represents 54% of all parking. Parking in the study area is primarily free both on-street and off.

Table 1 presents an inventory of all parking surveyed in the 2016 Newberg Study Area.

**Table 1
2016 Parking Inventory – Newberg**

Downtown Newberg Inventory – On-Street and Off-Street		
Stalls by Type	Total Stalls	% of Total On-street Stalls
10 minutes	3	< 1%
15 minutes	14	1.5%
30 minutes	1	< 1%
1 hour	6	< 1%
2 hours	269	28.0%
No Limit	654	68.1%

Accessible (ADA)	9	< 1%
Theater Only	3	< 1%
Reserved	1	< 1%
On-Street Supply	960	46%*
Off-Street Supply (85 sites)	1,146	54%*
Total (All On and Off-Street)	2,106	100%

* Percentage distribution of on and off-street stalls as portion of total study area inventory.

A. On-Street Parking Time Stay Format

As **Table 1** indicates, on-street parking in this area has a mix of time stay options, comprised of nine categories ranging from 10 minutes to No Limit. Key elements of the on-street time stay format are:

- A majority of stalls do not have a designated time stay, referred to here as No Limit. Of the 960 total stalls, 654 (68.1%) are No Limit. This is a very high percentage of the on-street system dedicated to long-term use, particularly if higher visitor activity is desired. Stalls with stays of one or two hours, generally more associated with visitor use, make up approximately 28% of the on-street supply, with six 1-hour stalls (< 1%) and 269 2-hour stalls (28%).
- The remainder of the on-street supply includes 10-, 15- and 30-minute stalls that combine for slightly less than 2% of the supply.
- Special use parking, including Accessible (ADA), Theater Only, and Reserved, totals 13 stalls (slightly more than 1%).

With the large number of No Limit stalls, the current format favors long-term parking. While overall occupancy levels are relatively low at present (see **Section VII**), reformatting time limits to include more short-term parking should be considered to encourage retail development.

B. Off-Street Parking Format

As indicated in **Table 1**, off-street parking in the study area is distributed across 85 sites totaling 1,146 stalls. A listing of each individual site is provided in **Attachment A**.

To better understand their purpose, lots were sorted by their typical manner of use. **Table 2** identifies all lots by use type, and indicates the number of lots of that type, the combined number of stalls per type, and the percentage of total stalls that represents. This is summarized on the left half of the table. The table also provides a glimpse at the 27 lots that were sampled during the data collection effort. This is summarized on the right half of the table.

Table 2
Off-street Inventory - By Use Type

Use Type	Number of Lots Inventoried	Stalls	% of Total	Number of Lots Surveyed	Stalls	% of Total
Auto	4	36	3%	0	0	0%
Bank	3	48	4%	2	36	3.1%
Church	2	18	2%	1	15	1.3%
Civic	2	95	8%	1	54	4.7%
Institution	1	32	3%	1	32	2.8%
Medical	2	24	2%	1	18	1.6%
Office	14	163	14%	4	52	4.5%
Public	4	131	11%	4	130	11.3%
Residential	4	36	3%	0	0	0%
Restaurant	10	128	11%	2	43	3.8%
Retail	20	279	24%	7	135	11.8%
Service	14	98	9%	3	40	3.5%
Unknown	5	59	5%	1	24	2.1%
Total	85	1,146	100%	27	579	50.5%

Key elements of the off-street system are:

- The majority of off-street parking is private: 81 of 85 lots, comprising 1,016 stalls and representing 89% of all off-street parking.
- Parking for retail uses represents the largest portion of off-street parking at 24%, with 279 stalls on 20 lots. This is followed by parking for office uses at 14%, with 163 stalls on 14 lots.
- Publicly-owned parking represents 11% of the off-street supply, with 130 stalls on four lots.
- The current balance of private and public parking is not unusual for downtowns, but does mean that shared use agreements can be more complex, involving negotiations with individual owners of private lots.

VII. CHARACTERISTICS OF THE 2016 PARKING SUPPLY

A. On-Street Parking Summary

During the survey day of April 13, 2016, peak hour for the on-street inventory was from 12:00 to 1:00 PM. During this hour, just under half (47.6%) of the stalls in the study area were occupied. A total of 500 stalls remained empty.

Table 3 below summarizes occupancies and peak hours by stall type, the number of stalls available at the peak hour, average length of stay, and rate of violation. **Figure B** (page 8) illustrates on-street occupancies for each hour of the 10-hour survey day.

**Table 3
2016 Newberg On-Street Parking Summary by Time Stay**

2016 Downtown Newberg On-Street Parking Utilization						
Type of Stall	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available	Average Length of Stay	Violation Rate
On-Street Peak	960	12:00 – 1:00 PM²	47.6%	500	2 hr/ 50 min	23.0%
10 minutes	3	11:00 AM – 1:00 PM	66.7%	1	4 hr/ 30 min	100.0%
15 minutes	14	9:00 – 10:00 AM 12:00 – 1:00 PM	50.0%	7	1 hr/ 32 min	5.4%
30 minutes	1	9:00 – 10:00 AM 12:00 – 1:00 PM 3:00 – 4:00 PM	100.0%	0	N/A	N/A
1-hour	6	10:00 AM – 12:00 PM	100.0%	0	3 hr/ 32 min	61.5%
2-hours	269	12:00 – 1:00 PM	70.3%	80	2 hr/ 8 min	23.1%
No Limit	654	11:00 AM – 12:00 PM	38.8%	394	3 hr/ 43 min	N/A
Handicapped	9	1:00 – 2:00 PM	33.3%	6	1 hr/ 26 min	N/A
Theater Only	3	1:00 – 3:00 PM	100.0%	0	1 hr/ 50 min	N/A
Reserved	1	10:00 – 11:00 AM 1:00 – 2:00 PM 3:00 – 4:00 PM	100.0%	0	1 hr/ 0 min	N/A

From **Table 3** and associated figures, the following can be derived:

- The peak hour for all on-street parking is from noon to 1:00 PM. During this hour, 460 stalls (47.6% of the supply) are occupied; leaving 500 stalls empty in the study area.
- The average length of stay for all on-street parkers is 2 hours 50 minutes.

² Peaks may vary between the on and off-street parking systems *and* peaks may vary between off-street lots. The 12:00 – 1:00 PM peak captures the highest peak hour for the study zone, when use of the on system, combined, is at its highest point. The third column in Table 3 illustrates the variation in peak hours by stall types.

- Vehicles parked in 2-hour stalls had an average length of stay of 2 hours 8 minutes, very close to the posted limit. These stalls also have a moderate level of occupancy (70.3%), suggesting that the current limit is appropriate to user need.
- The average length of stay in No Limit stalls is 3 hours 43 minutes, which may indicate use by both visitors and employees.
- Average length of stay at 10-minute stalls was anomalous in that two vehicles were parked for a sustained period, generating an average stay of 4 hours 30 minutes. Further evaluation of the location and necessity of these stalls is needed.
- 15-minute stalls showed moderate use at 50% occupancy, but had an average stay of about 90 minutes. As with the 10-minute stalls, further evaluation is warranted.
- The overall low occupancy level of 47.6% in the study area indicates that parking is readily available on-street throughout the day. There are very few instances where the system is constrained for any sustained period of time.
- Even though rates of violation are high (23%), low occupancies indicate that users are not being denied access to parking in a manner that would require greater enforcement to ensure availability.

Figure B provides an hour-by-hour look at occupancy performance on the survey day. Overall occupancy is low throughout the day. The peak hour reaches 47.6% between noon and 1:00 PM. Overall occupancy remains just above 40% between 10:30 AM and 4:30 PM. There is abundant parking available, with significant capacity to absorb new trips.

FIGURE B
2016 Newberg on-Street Utilization

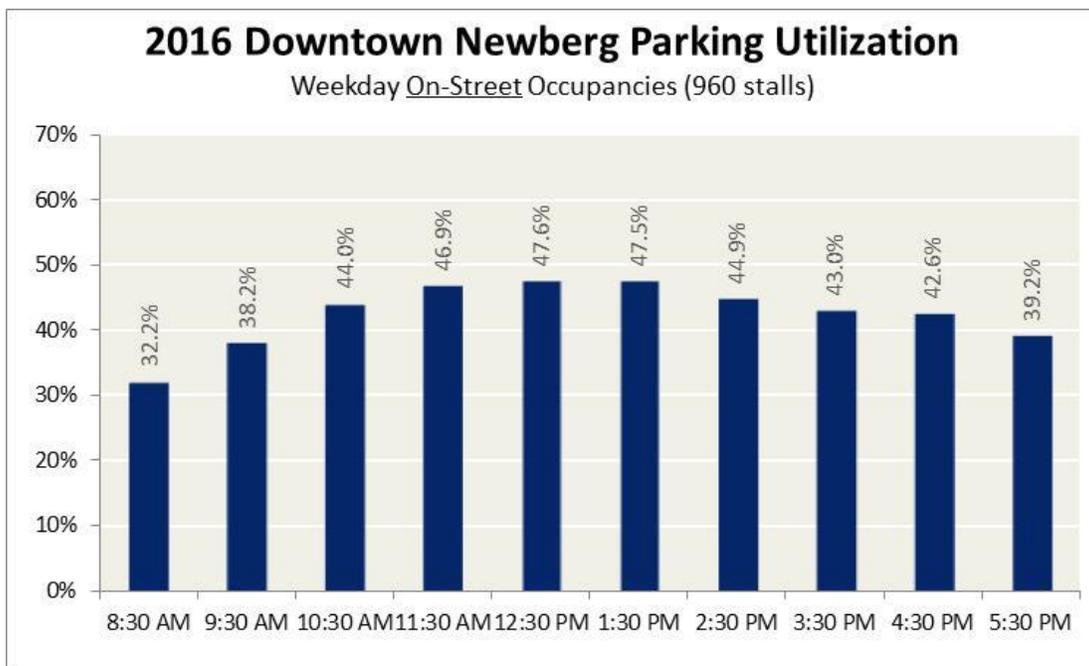
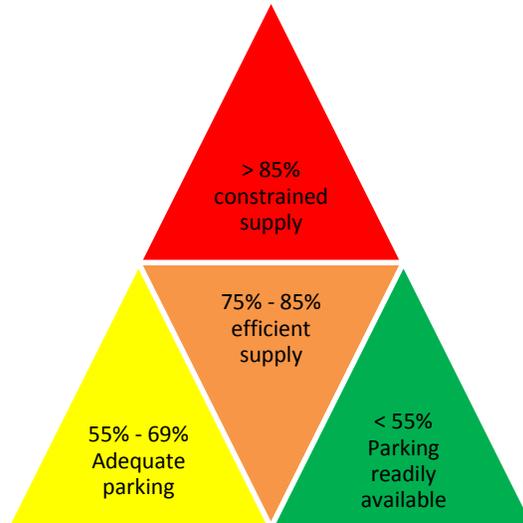


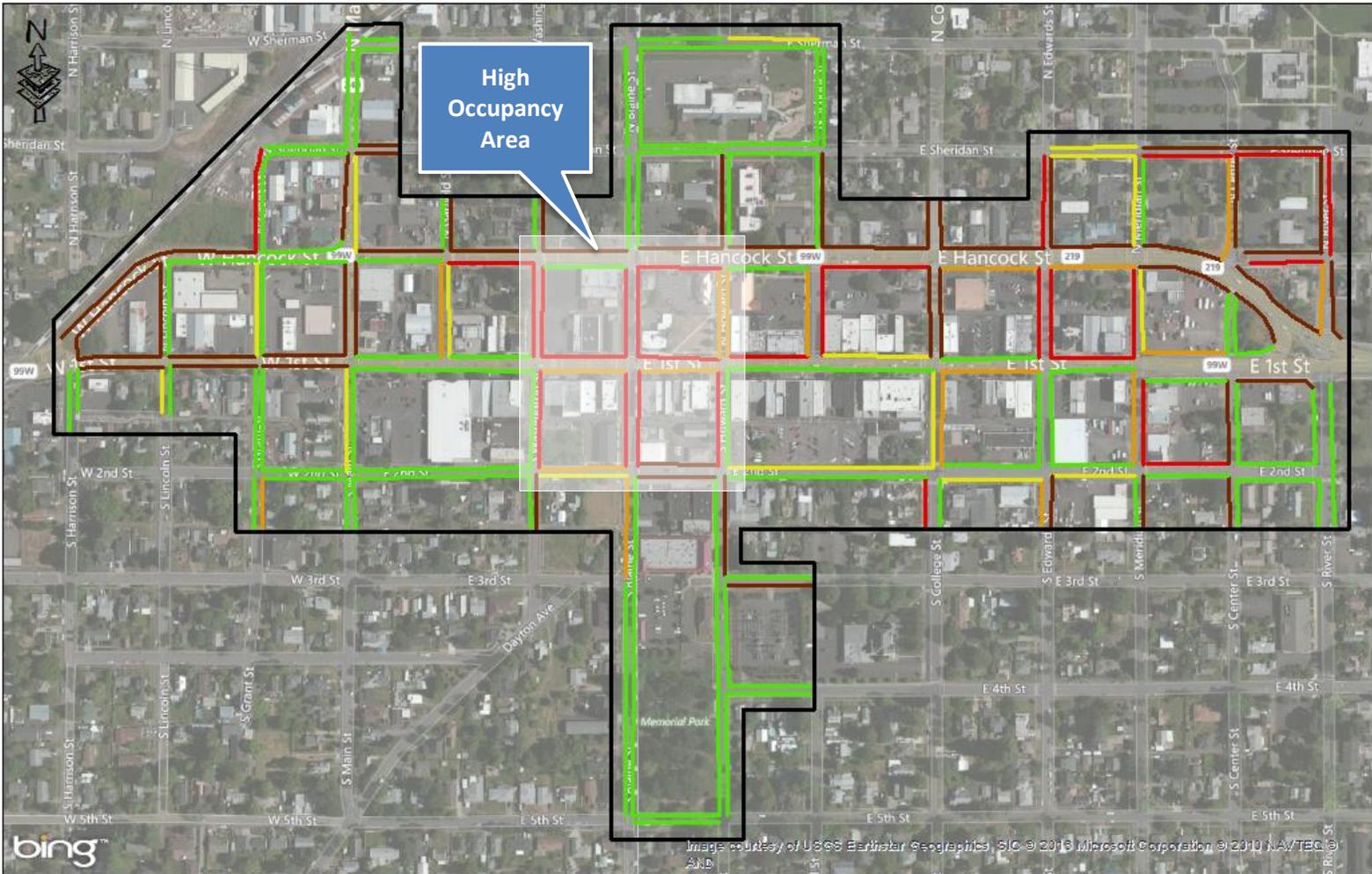
Figure C (next page) summarizes occupancy in the peak hour by block face via a “heat map” of the study area. A heat map uses color to display degrees of occupancy as measured against an industry standard of 85%: when occupancy exceeds that level, the system is considered constrained. Block faces marked in red indicate areas of constraint. Green represents areas of underutilized parking, while yellow and orange represent the middle ranges of occupancy. See figure at right.



In the study area, there are a total of 175 block faces where on-street parking is allowed. As

Figure C illustrates, 28 of those block faces are constrained at the peak hour, about 16% of the study area. Thirteen of the 28 constrained block faces are clustered between E Hancock and E 2st Street between Washington and Howard. Even in this high-occupancy area (highlighted in the white box in **Figure C**), parking is available within a block or two, if not on an adjacent block face. However, the clustering of high demand on these block faces may create the perception among users that parking is generally constrained downtown, particularly for those not inclined to walk even a short distance.

FIGURE C
2016 Newberg On-Street Heat Map



City of Newberg Downtown

Newberg Parking Utilization

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- Parking Study Area
- > 85%
- 84% - 70%
- 69% - 55%
- < 55%
- No Parking

April 13, 2016

12:00 - 1:00 PM
On-Street Peak Hour



1. *On-Street: Usage Characteristics (Duration of Stay, Volume, Turnover and Exceeding Time Stays)*

Table 4 summarizes a number of performance metrics for the on-street system.

**Table 4
On-Street Parking: Summary of Use Characteristics
Complete Study Area (960 stalls)**

	Use Characteristics	All Users
a	Average length of stay per vehicle per occupied stall	2 hr 50 min
b	Number of Unique License Plates	1,303
c	Actual turnover rate (number of cars to use a single occupied stall over a 10 hour period)	3.54
d	% of unique vehicles violating the posted time stay	23.0%
e	Actual number of vehicles parked for time stays over 5 hours	88

a. Average length of stay

- The average stay for all on-street parking stalls is 2 hours 50 minutes.
- The high number of No Limit stalls, with an average stay of 3 hours 43 minutes, clearly brings up the overall average.

b. Number of unique vehicles

The recording of license plate numbers allows us to identify the total number of unique vehicles using the on-street system.³

On the survey day, 1,303 unique license plate numbers were recorded on-street between 8:00 AM and 6:00 PM. This translates to approximately 130 vehicles arriving each hour over the course of an average business day. Overall, this is a low to moderate volume of parking activity.

c. 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 limit for a stall is two hours, and over a 10-hour period that stall is occupied by five unique vehicles, it's intend. As such, if turnover were demonstrated to be at a rate of less than 5.0, the system would be deemed inefficient. A rate in excess of 5.0 would indicate a system that is operating efficiently.

³Note this does not represent all vehicles in the study area, as license plate numbers were not recorded in off-street facilities.

In the Newberg study area, the on-street parking system has an average turnover rate of 3.54. This indicates a system that does not support vital street-level activity or retail businesses. This is due to more than half the supply being given over to No Limit stalls, which are more conducive to commuter trips than to visitor/customer trips.

With the Newberg-Dundee Bypass opening late next year, measures must be taken to support higher turnover rates and accommodate growing demand for retail parking. The number of No Limit stalls will need to be gradually reduced, particularly in areas where street-level business activity is desired.

d. Rate of Violation - Exceeding Posted Time Stays

Approximately 23% of unique vehicles parked in time-limited stalls downtown exceed the posted time stay.⁴ On the survey day, 299 vehicles exceeded the posted stay on-street. The industry best-practice standard for time stay violations is between 5% and 9%. Newberg's total is well above the high side of the standard, but is not troublesome at this time as occupancies are so low. Enhanced enforcement would only be recommended in situations where the rate of violation exceeds the industry standard in a constrained parking environment, where high rates of violation result in less access. This is not currently the case in Newberg.

e. Excessive time stay

Some violations of posted time stays can be considered abuse of the system. The consultant team tracked vehicles parked in time-limited stalls for periods of five hours or more. On the survey day, 88 vehicles fell into this category. These vehicles were parked in 10-minute, 15-minute, 30-minute, 1-hour and 2-hour stalls. It is likely that these vehicles belong to employees.

f. Moving to Evade

"Moving to evade" refers to vehicles moving between time-limited on-street stalls over the course of a day. 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 off-street lots. This would preserve the on-street supply for higher turnover users.

Table 5 (next page) summarizes the number of unique vehicles identified as moving from one stall to another during the survey day. As indicated, 74 vehicles fell into this category, representing about 6% of all vehicles parked on-street on the survey day.

⁴ Time stay violations can only occur in time-limited stalls. The majority of stalls in Newberg are No Limit. The 23% rate of violation established here is only for parking in the 293 of 960 stalls that are time-limited.

Table 5
Summary of ‘Moving to Evade’ – Downtown Newberg

Moving To Evade Parking Citations	Values
Occurrence of license plates observed moving to evade parking citations (e.g., employees moving their car every few hours)	74 (5.7% of unique vehicles)
Average moves per unique license plate	1.1

As with rates of violation above, this metric may not be of consequence at this time due to the low rates of occupancy in downtown Newberg.

B. Off-Street Parking Summary

Although the current peak occupancy level of the on-street supply is low at 47.6%, future constraints in the system will need to be directed to off-street locations. To this end, understanding how the off-street system operates in relation to the on-street system, and determining its capacity to absorb growth in parking demand, will be important.

Figure D (next page) illustrates occupancy levels for each hour of the ten-hour survey day. The highest occupancy occurred between 11:00 AM and 12:00 PM, one hour earlier than the on-street system. During this hour, the off-street supply reached 47.3% occupancy, leaving 305 stalls available for use.⁵ As with the on-street system, this is a low rate of use, leaving an abundance of parking available to accommodate new growth and increases in parking demand.

⁵ When combined with the on-street system, approximately 808 total stalls were empty at the peak.

Figure D
2016 Newberg Off-Street Utilization

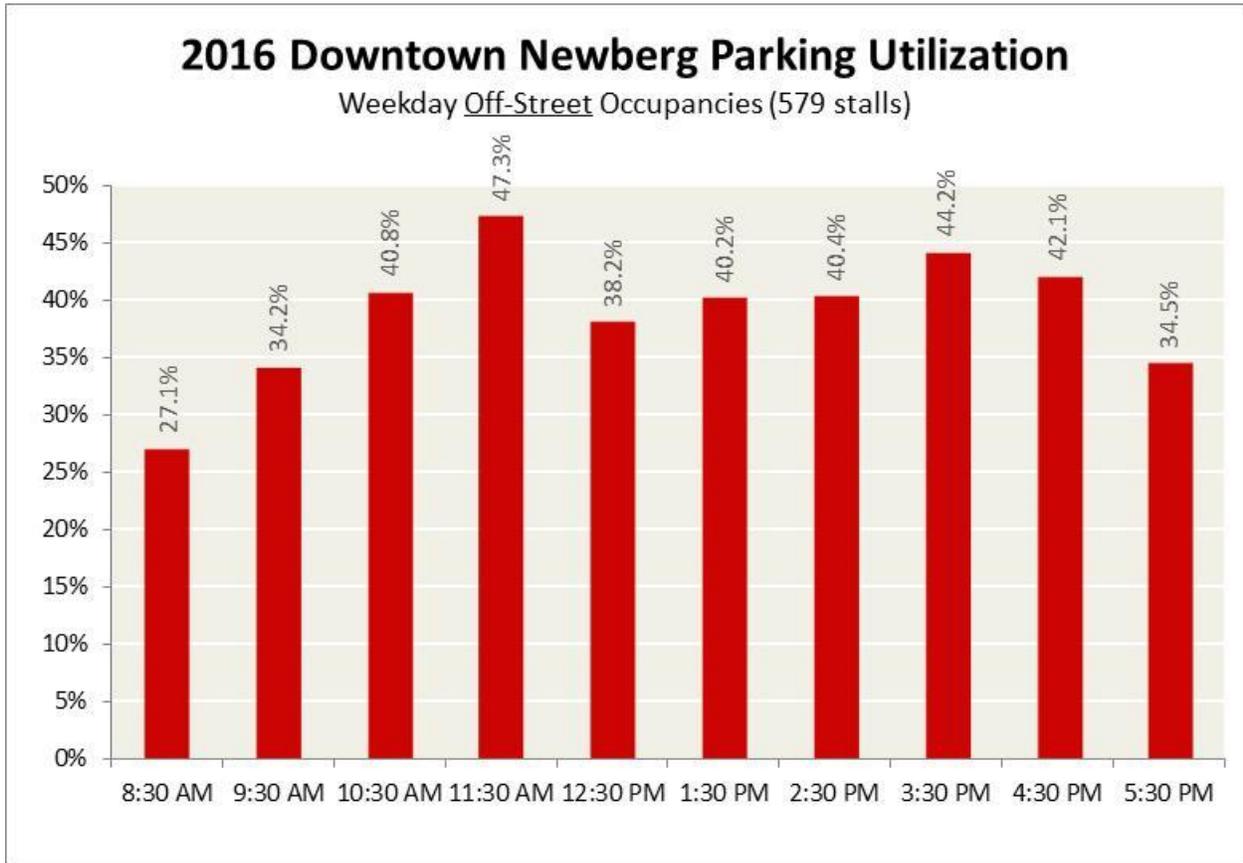


Table 6 provides a peak-hour usage summary for each of the 27 surveyed off-street lots. As the table demonstrates, most lots are small to medium in size. The largest lot (Lot 60) is a 90-stall lot serving multi-tenant retail. Some lots do have moderate to high peak occupancies, but the overall average is still less than 50%, and the availability of parking is evenly distributed throughout the downtown (see **Figure E** below). If findings from the survey sample (27 lots, 549 stalls) are extrapolated to the entire off-street supply (85 lots, 1,146 stalls), there would be a total of 604 empty off-street stalls at the peak hour. This is summarized in the bottom row of **Table 6**.

Table 6
2016 Newberg Off-Street Parking – Surveyed Lots

Lot Number	Parking Facility	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available
2	Roped off, not striped	24	N/A	0.0%	24
9	First Federal Bank	22	9:00 – 10:00 AM 11:00 AM – 12:00 PM	50.0%	11
10	Wells Fargo + Drive Thru	14	1:00 – 2:00 PM	78.6%	3
13	Newberg World of Faith Center	15	11:00 AM – 12:00 PM 3:00 – 4:00 PM	26.7%	11

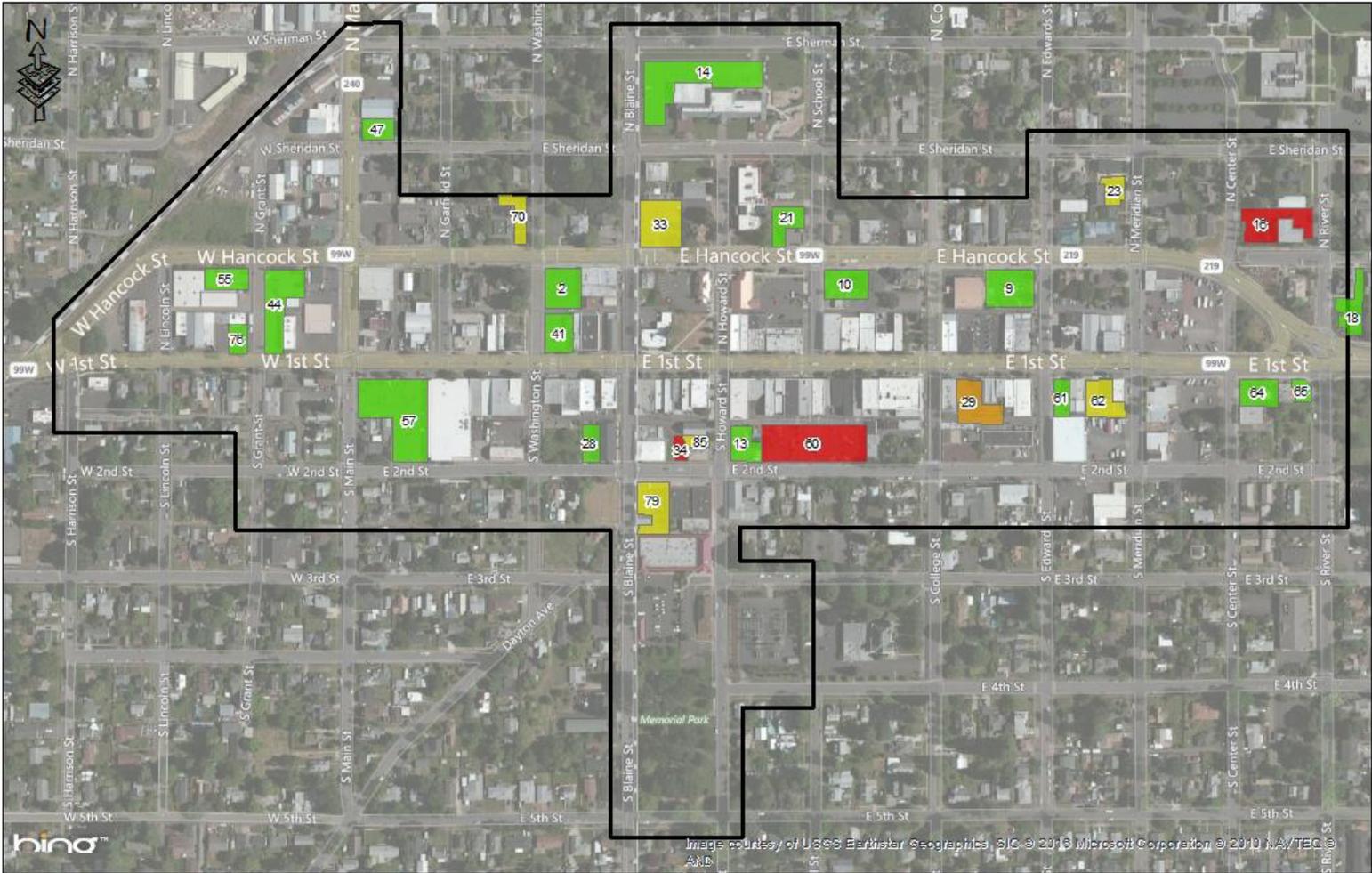
14	Chehalem Cultural Center	54	11:00 AM – 12:00 PM	18.5%	44
16	Campus Residential Parking	32	1:00 – 2:00 PM	93.8%	2
18	River Street Dental	18	N/A	0.0%	18
21	First American Title	14	4:00 – 5:00 PM	42.9%	8
23	Meridian St. Building	11	3:00 – 4:00 PM	81.8%	2
28	Joshua Suites Professional Building	11	4:00 – 5:00 PM	72.7%	3
29	Private - Law Office	16	3:00 – 4:00 PM	93.8%	1
33	Public Parking	28	11:00 AM – 12:00 PM	60.7%	11
34	6 Civic Vehicle Parking	6	8:00 AM – 12:00 PM 1:00 – 4:00 PM	100.0%	0
41	Ixtapa Restaurant	18	5:00 – 6:00 PM	50.0%	9
44	Pasquale's Italian Restaurant	25	8:00 – 9:00 AM	20.0%	20
47	Anam Cara Cellars	8	10:00 AM – 12:00 PM 1:00 – 3:00 PM	25.0%	6
55	Terry's Crush Cellar	17	11:00 AM – 12:00 PM	47.1%	9
57	Thriftway	64	3:00 – 4:00 PM	51.6%	31
60	Multi Tenant Retail	90	11:00 AM – 12:00 PM	87.8%	11
61	Unknown	10	5:00 – 6:00 PM	60.0%	4
62	American Insurance Family	17	12:00 – 2:00 PM	70.6%	5
64	Chehalem Tasting Room	14	11:00 AM – 4:00 PM	21.4%	11
65	Newberg Food Mart	5	4:00 – 5:00 PM	100.0%	0
70	Dr. Robert C. Wilde, D.M.D. General Dentistry	12	11:00 AM – 12:00 PM	66.7%	4
76	1st Street Laundromat	9	5:00 – 6:00 PM	44.4%	5
79	Newberg Fire	19	10:00 – 11:00 AM	68.4%	6
85	General Vehicle Parking	6	3:00 – 4:00 PM	83.3%	1
	Off-Street Supply Surveyed (27 sites)	579	11:00 AM – 12:00 PM	47.3%	305
	All Off-Street Supply (85 inventoried sites - extrapolated)	1,146	11:00 AM – 12:00 PM	47.3%	604

Figure E (page 16) provides a heat map that illustrates off-street peak-hour occupancy. Three off-street lots (#16 – Campus Residential Parking; #34 – 5 Civic Vehicle Parking; #60 – Multi-Tenant Retail) have peak occupancy over 85%. This is a small segment of all parking in the study area, but could raise the perception that parking is constrained overall.

The availability of off-street parking presents an opportunity to begin conversations on potential shared use agreements with owners of private parking.

A longer-term potential project is identifying land parcels that could be purchased for long-term parking. This would allow the City to manage the on-street system and direct long-term parkers into additional public lots. The four public lots surveyed had a combined occupancy of 86.9%. Again, this is a longer-term consideration, as current occupancies are low enough that typical weekday users do not experience significant difficulty finding parking within a short walk of most any location.

FIGURE E
2016 Newberg Off-Street Heat Map



City of Newberg Downtown

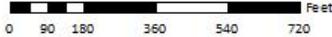
Newberg Parking Utilization

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April 13, 2016

11:00 AM - 12:00 PM
Off-Street Peak Hour



C. Combined Parking Summary

Combining both the on- and off-street systems allows for a more holistic understanding of how the entire parking system is working. **Table 7** provides a summary of on- and off-street usage, resulting in a combined peak occupancy of 46.8%. A total of 818 stalls surveyed were unoccupied; extrapolated to the entire system, 1,119 stalls were unoccupied. Both the on- and off-street supplies have ample capacity for absorption in the future.

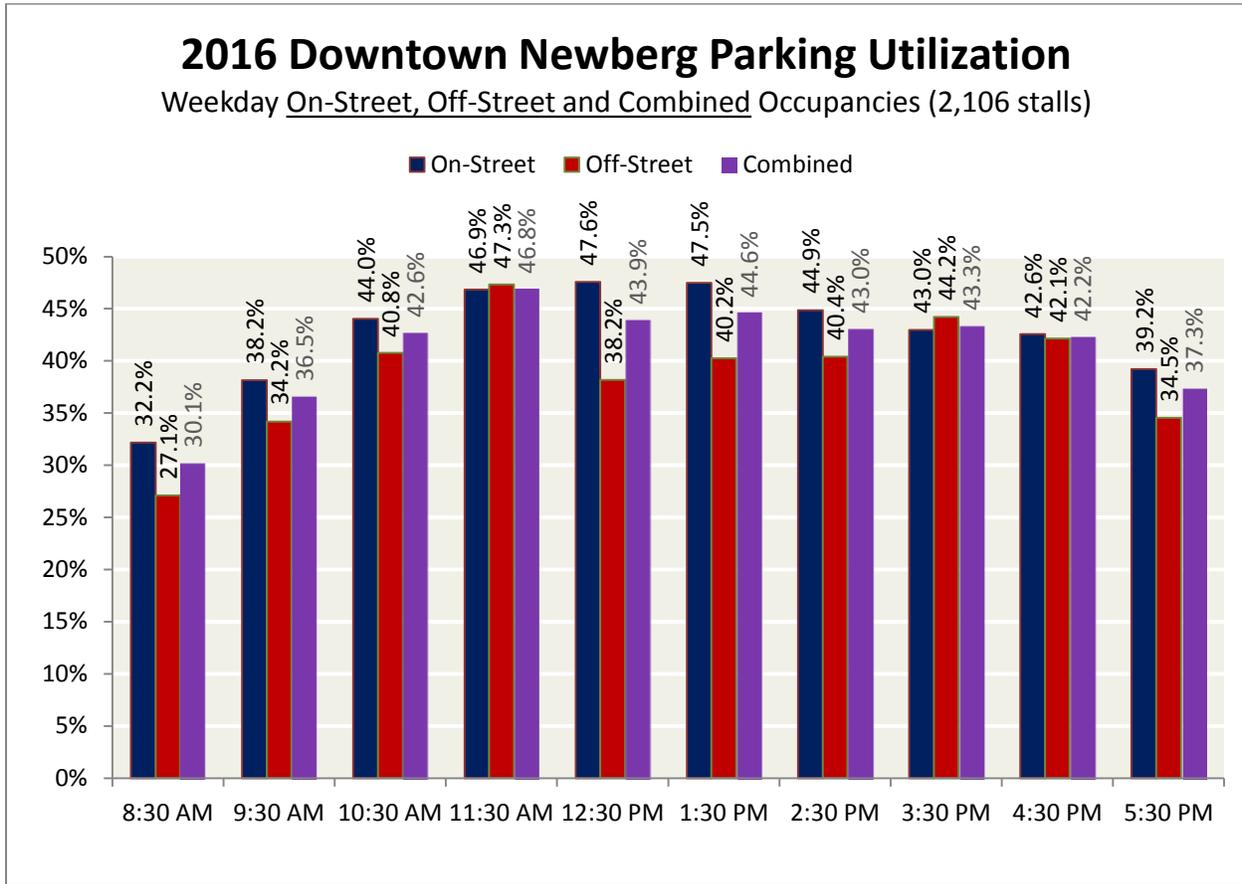
**Table 7
2016 Newberg Combined Parking Utilization**

Use Type	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available
On-Street Supply Surveyed	960	12:00 – 1:00 PM	47.6%	500
Off-Street Supply Surveyed	579	11:00 AM – 12:00 PM	47.3%	305
Total Supply Surveyed	1,539	11:00 AM – 12:00 PM	46.8%	818⁶
Total (All On and Off-Street) Extrapolated	2,106	11:00 AM – 12:00 PM	46.8%	1,119

Figure F (next page) illustrates the on-street, off-street and combined occupancies for each hour of the ten-hour survey day.

⁶ Note that the “total supply surveyed” totals 818, rather than 808 as the two rows above would suggest. This is a function of the two different peak hours for the on- and off-street supplies. When both supplies are combined, the peak hour occurs between 11 AM and noon, causing the 10-vehicle difference.

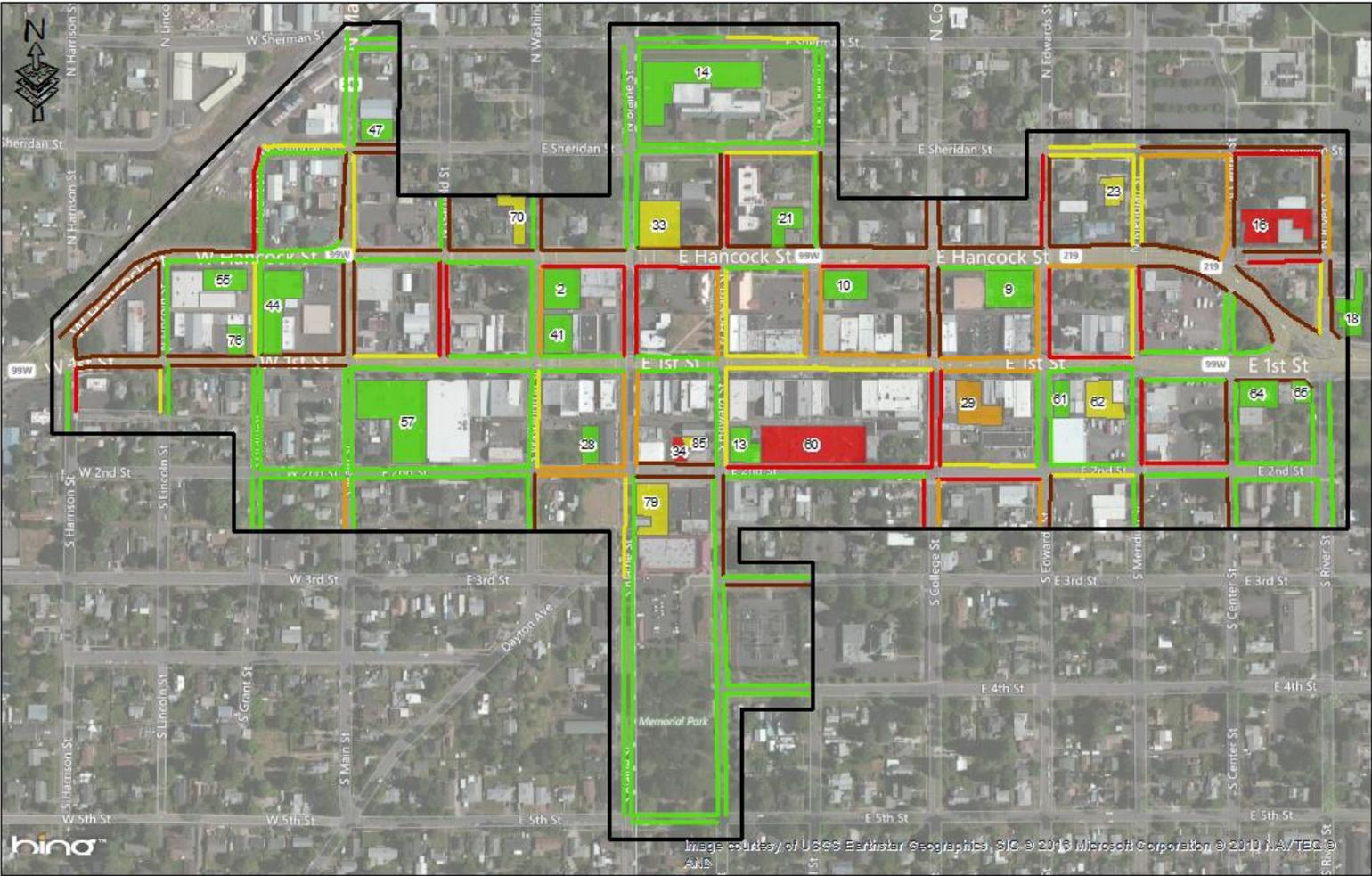
Figure F
2016 Newberg On-Street/Off-Street/Combined Occupancies



The combined graphic of peak hours shows that even though the on- and off-street systems share a similar peak occupancy of just over 47%, the on-street system tends to sustain occupancies throughout the midday, while the off-street experiences a more substantial drop in use. The off-street system does show an upward spike between 3:30 PM and 4:30 PM. This graphic underscores the abundant amount of unused parking in the downtown parking supply at all hours of the day.

Figure G (next page) illustrates combined on- and off-street peak occupancy. At the combined peak hour of 11:00 AM to noon, the few locations that do have 85% or higher occupancies are all convenient to either on- or off-street supplies of empty parking. Overall, any location that is constrained has empty parking directly adjacent or, at worst, within a block.

FIGURE G
2016 Newberg Heat Map



City of Newberg Downtown
Newberg Parking Utilization

RICK WILLIAMS CONSULTING
Parking & Transportation



April 13, 2016

11:00 AM - 12:00 PM
Combined Peak Hour



IX. SUMMARY

The 2016 data analysis of the on- and off-street parking in downtown Newberg indicates that the system is operating at a low level of capacity. The on-street system shows indication of inefficiencies, as the parking turnover rate is relatively low (3.54) and the violation rate is high (23%). This combination does not support a robust retail environment. Off-street parking is abundant, with numerous lots with low to moderate occupancies.

The combined peak-hour occupancy level hovers around 47%, and parking is generally available at any location in the study area. Recalibrating on-street time stays to more accurately reflect the needs of users will be one step in encouraging ground-level business. This would begin with strategically reducing the number of No Limit stalls in the downtown and replacing them with 2-hour stalls. Working with owners of private off-street parking to create partnerships and discuss shared parking opportunities will complement reformatting of the on-street supply. These few steps are important elements in anticipation of the exciting changes coming to a revitalizing Newberg.

ATTACHMENT A
2016 Newberg Off-Street Inventory by Site
(Red indicates lots surveyed on 4/13/2016)

Lot Number	Parking Facility	# of Stalls	Use Type	Lot Type
1	Gonzales Panaderia & Taqueria (Alley)	4	Alley	Private
2	Roped off, not striped	24	Alley	Private
3	Alley Parking- Tenant/Customer Parking	7	Alley	Private
4	Alleyway Residents only	3	Alley	Private
5	True Form Collision Repair	10	Auto	Private
6	Leif's Auto Collision/ Gas Station	3	Auto	Private
7	Newberg Tire and Auto Repair	8	Auto	Private
8	Newberg Body & Paint	15	Auto	Private
9	First Federal Bank	22	Bank	Private
10	Wells Fargo + Drive Thru	14	Bank	Private
11	First Community Credit Union	12	Bank	Private
12	Church Parking	3	Church	Private
13	Newberg World of Faith Center	15	Church	Private
14	Chehalem Cultural Center	54	Civic	Private
15	Secured Public Safety Vehicles	41	Civic	Private
16	Campus Residential Parking	32	Institution	Private
17	Dr. Brecke Office - Dental	6	Medical	Private
18	River Street Dental	18	Medical	Private
19	Rita Wolff Oregon Broker	3	Office	Private
20	Valley Realty Professionals LLC	2	Office	Private
21	First American Title	14	Office	Private
22	Newberg Travel & Cruise	7	Office	Private
23	Meridian St. Building	11	Office	Private
24	State Farm	6	Office	Private
25	Meridian St. House/Social Work	16	Office	Private
26	Chehalem Valley Chamber, Personal Farmer, Workplace	15	Office	Private
27	The Newberg Graphic	33	Office	Private
28	Joshua Suites Professional Building	11	Office	Private
29	Private - Law Office	16	Office	Private
30	Unknown	7	Office	Private
31	Public Safety Bldg/Thrift Shop/Park	17	Office	Private
32	Income Tax - Thomas L. Deines LLC (FOR LEASE)	5	Office	Private
33	Public Parking	28	Public	Public
34	6 Civic Vehicle Parking	6	Public	Public
35	Apartments 611	24	Residential	Private
36	Unknown	4	Residential	Private
37	Apartments	5	Residential	Private
38	Nara Teriyaki	7	Restaurant	Private

39	Jem 100 Ice Cream	16	Restaurant	Private
40	Papa Murphy's	8	Restaurant	Private
41	Ixtapa Restaurant	18	Restaurant	Private
42	Recipe	7	Restaurant	Private
43	Jac's Deli and Frozen Custard	5	Restaurant	Private
44	Pasquale's Italian Restaurant	25	Restaurant	Private
45	Dairy Queen (CLOSED)	23	Restaurant	Private
46	Subway	15	Restaurant	Private
47	Anam Cara Cellars	8	Retail	Private
48	Back side of Anam Cara Cellars	8	Retail	Private
49	Rays Produce	8	Retail	Private
50	Wine Country Antiques	8	Retail	Private
51	Luck Finds Thrift Store	9	Retail	Private
52	Mixed retail (Dominos)	23	Retail	Private
53	Ken & Daughter Jewelers	4	Retail	Private
54	Quick Stop Market	6	Retail	Private
55	Terry's Crush Cellar	17	Retail	Private
56	American Classic and Hot Rods	40	Retail	Private
57	Thriftway	64	Retail	Private
58	Chahalem Sign Company	10	Retail	Private
59	Pitter Patter	13	Retail	Private
60	Multi Tenant Retail	90	Public	Public
61	Unknown	10	Retail	Private
62	American Insurance Family	17	Retail	Private
63	Delano Supply	5	Retail	Private
64	Chehalem Tasting Room	14	Retail	Private
65	Newberg Food Mart	5	Retail	Private
66	Mr. Rooter	3	Retail	Private
67	Newberg Steel	3	Service	Private
68	First Street Yoga	3	Service	Private
69	Specialty Contracting Glass and Door	1	Service	Private
70	Dr. Robert C. Wilde, D.M.D. General Dentistry	12	Service	Private
71	Trinity Hair Design	7	Service	Private
72	Post Office	7	Service	Private
73	Leather Gas Station	3	Service	Private
74	Newberg Family Chiropractic (Alleyway Parking)	7	Service	Private
75	Alleyway Parking (for Leif's repairs)	7	Service	Private
76	1st Street Laundromat	9	Service	Private
77	Jay's Custom Fabrication	10	Service	Private
78	Studio 601 Hair Design	6	Service	Private
79	Newberg Fire	19	Service	Private
80	Strong Hands Massage Therapy	4	Service	Private

81	Gravel Lot CONSTRUCTION	7	Unknown	Private
82	Habitat for Humanity Restore (CLOSED) (BLOCKED OFF)	7	Unknown	Private
83	111 N Grant St or N Hancock St	3	Unknown	Private
84	FOR LEASE	18	Unknown	Private
85	6 General Vehicle Parking	6	Public	Public
	Off-Street Supply - Surveyed (27 sites)	579	50.5%	
	All Off-Street Supply - Inventoried (85 sites)	1,146	100%	