



OSU PARKING UTILIZATION STUDY

FALL TERM 2009

FACILITIES SERVICES
CAMPUS PLANNING
APRIL 2010

Table of Contents

Purpose	3
Study Findings	3
Methodologies	3
OSU Main Campus Parking Survey.....	3
Campus Population & Parking Capacity	3
Parking Utilization	5
Parking Demand (Permit Sales).....	6
Parking Utilization by Sector	7
Additional Information/Contacts	8
Attachments.....	9

List of Figures

Figure 1. Population Breakdown	4
Figure 2. Parking Capacity and Enrollment Trend	5
Figure 3. Summary of Parking Capacity	6

List of Tables

Table 1. Summary of Parking Usage on Campus	6
Table 2. Peak Time Parking Demand Ratios	7
Table 3. Summary of Parking Usage on Campus by Sector	7

Purpose

The purpose of this study is for the University to analyze parking utilization on the OSU main campus (see map Attachment A - Parking Survey Overview Map). The main campus study is used to determine and analyze existing supply and demand as well as identifying parking trends on campus. OSU conducts a parking inventory during the fall term when enrollment is highest. As stated in the Campus Master Plan (CMP), vehicular parking improvements will be implemented if the campus occupancy rate reaches 90% (if utilization is 85% or greater planning for parking improvements will be initiated).

Study Findings

Results of this study indicate that parking utilization on campus for 2009 is at 71%. Utilization has *decreased* by 1% since 2008 and the population of the campus *increased* by 5.9% (1,579 people), meanwhile parking capacity on campus has decreased by nearly 300 spaces. Factors that may have influenced the change in utilization may include the higher cost of gasoline, the economy, elimination of free parking, changes in CTS bus routes (driving through campus), better OSU shuttle routes and connections, or a shift in settlement patterns of students.

OSU permits issued by Transit and Parking Services (TAPS) increased by 535 (a permit increase of 466 student (13.5%) & 69 Faculty/Staff (2.5%)) or 8.7% in total. Despite the increase in permit sales, utilization of parking on campus has decreased, which may be attributable to reasons previously stated. Although students purchased more parking permits than faculty, a smaller percentage of students parked on campus (12.4%) than faculty (37.7%) in 2009. This is likely due to the difference in distance being traveled by students and faculty.

Methodologies

The study was conducted during the fall academic term during the 4th week of the school (21-22 October, 2009, from 9:00 AM to 11:00 PM). This time period is when the campus is considered at peak occupancy and is typical for reporting statistics for 4-year colleges and universities. The study was conducted over a 2-day period on a typical lecture day (Wednesday) and typical laboratory day (Thursday) representing peak days within the week.

OSU Main Campus Parking Survey

An inventory of vacant parking spaces was completed one time on each day of the survey. The campus survey was completed by Campus Planning and TAPS.

Campus Population & Parking Capacity

To effectively evaluate how OSU is planning existing and future parking needs, Figure 1 (OSU Population Breakdown) below shows the campus population trend. Since 2005

the total campus population has increased approximately 10.4% with the largest percent increase being between 2008 and 2009 which had an increase of 5.9%.

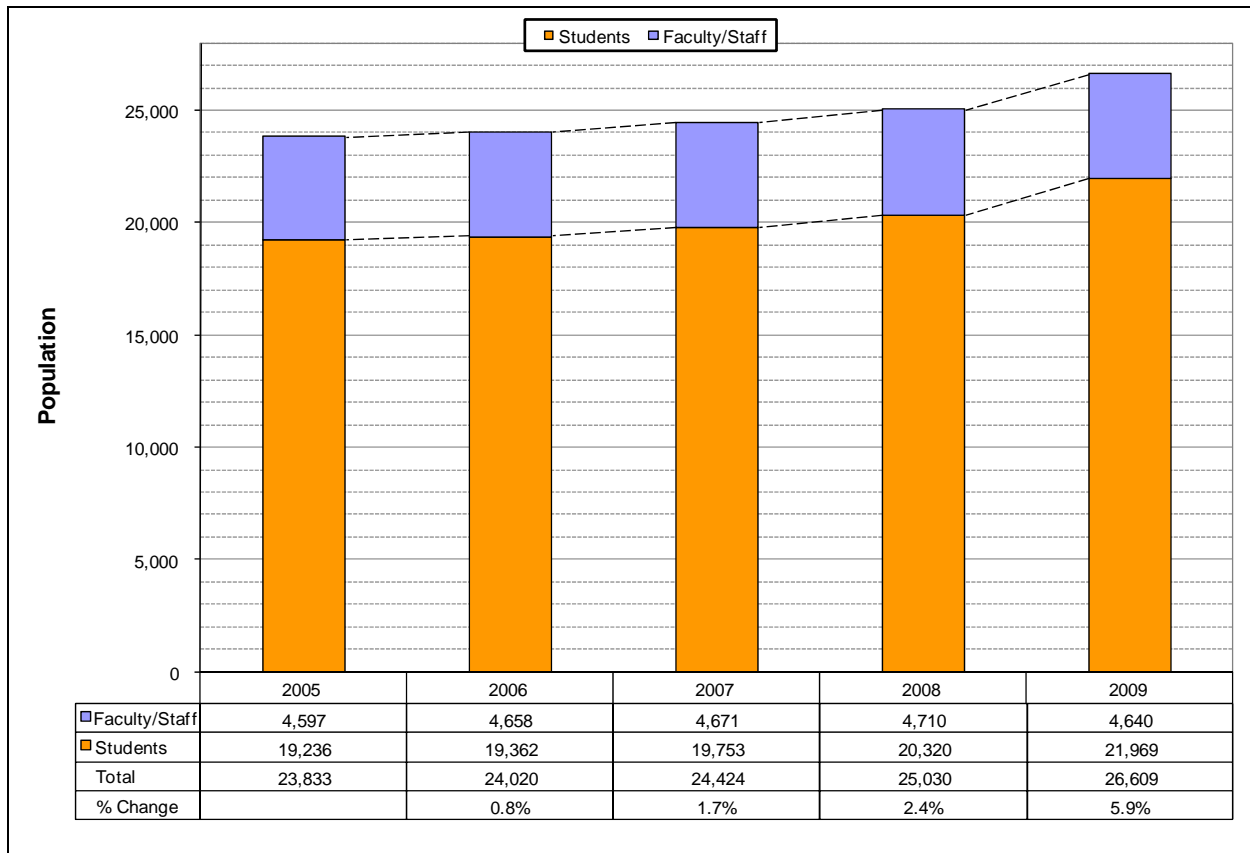


Figure 1. Population Breakdown

Campus parking consists of a parking structure and a variety of parking lots: permit-regulated, metered, and open parking. On-street parking is available on 11th, 13th, 14th and 15th streets campus way west of 30th street and other roadways adjacent to the campus. The lots and on-street spaces on campus are mainly controlled by the OSU permit system except for an “open” parking lot, located on Campus Way west of the Motor Pool that is free for anyone to use. Parking lots are serviced by a free shuttle service which consists of two buses that continually run on schedule throughout campus from 7:30 a.m. to 6:30 p.m, and connect to the Corvallis Transit bus system.

OSU’s parking management program employs a permit system for most of the parking lots, a pay-lot system for short-term metered parking, a campus shuttle; all on-campus parking is enforced. Permits are sold by use type: faculty/staff, student, emeritus, motorcycle, and visitor. Parking spaces within lots are assigned according to their permitted use. Those with faculty/staff permits are also allowed to use the student lots. Special permits are available for service vehicles and visitors on campus.

Figure 2 (OSU Parking Capacity and Enrollment Trend) shows the breakdown of assigned parking spaces relative to campus population. The number of total parking spaces remained at over 8,000 spaces from 2005 to 2008. In 2009 the number of total parking spaces decreased by nearly 300 due to the destruction of a parking area in the place of the future Linus Poling Science Center. The distribution of parking capacity by

campus sector can be viewed in **Attachment B - Parking Capacity by Campus Sector Map**.



Figure 2. Parking Capacity and Enrollment Trend

Parking Utilization

Parking utilization is calculated as the ratio of occupied spaces to the total number of spaces. A 90% utilization rate requires the University to construct new parking facilities. At this level of utilization drivers may spend considerable time circulating campus in search of a parking space. **Based on the survey, OSU's parking is at a utilization rate of 71% during peak hours.** A detailed map showing parking lot utilization by parking lot and campus sector is included as **Attachment C - Campus Survey Results Map**.

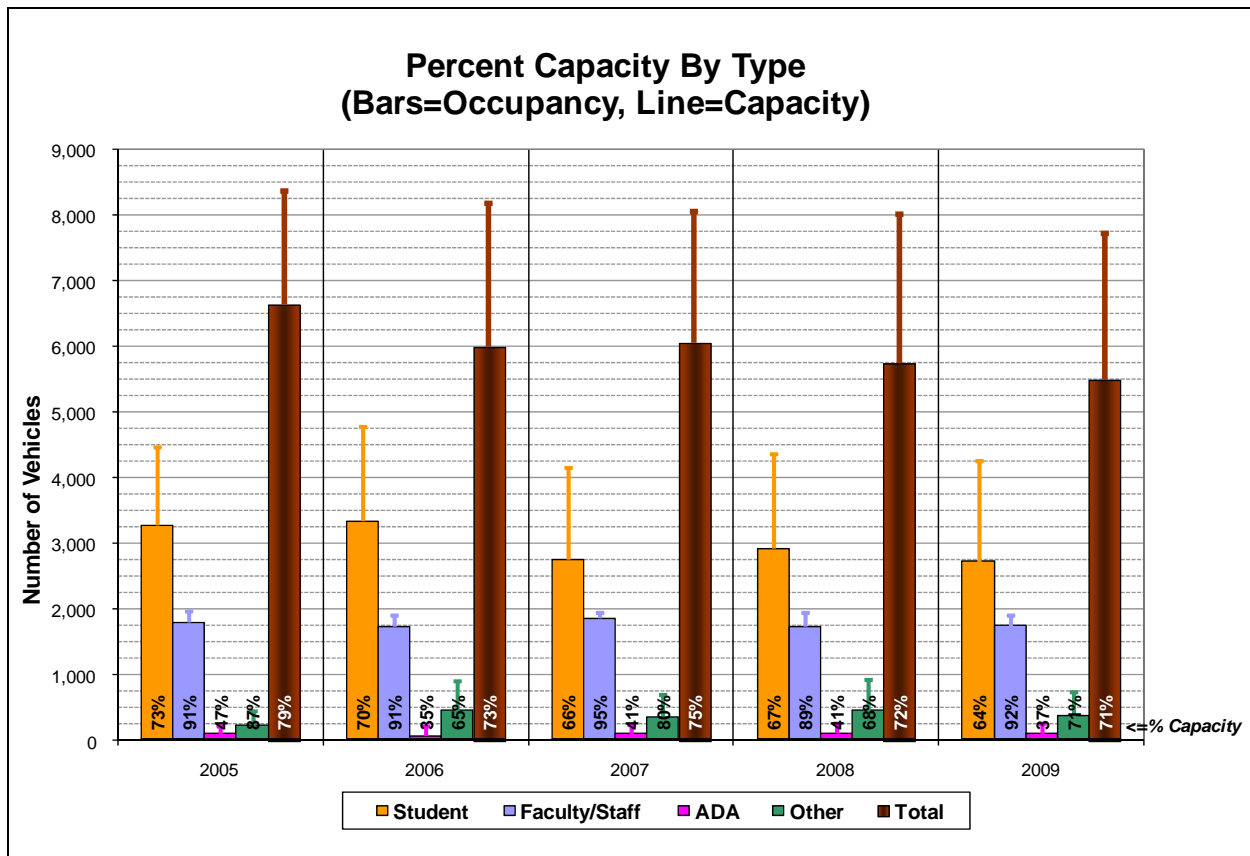


Figure 3. Summary of Parking Capacity

	Parking Capacity (vehicles)					Parking Occupancy (vehicles)					% Occupancy				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Students	4,481	4,780	4,161	4,368	4,272	3,276	3,344	2,753	2,928	2,731	73%	70%	66%	67%	64%
Faculty/Staff	1,976	1,907	1,950	1,954	1,901	1,797	1,740	1,859	1,732	1,749	91%	91%	95%	89%	92%
ADA	217	211	248	254	255	102	73	101	105	95	47%	35%	41%	41%	37%
Other	1,697	1,294	1,696	1,430	1,289	1,469	839	1,351	971	921	87%	65%	80%	68%	71%
Total	8,371	8,192	8,055	8,006	7,717	6,644	5,996	6,064	5,736	5,495	79%	73%	75%	72%	71%

Table 1. Summary of Parking Usage on Campus

Parking Occupancy between 2008 and 2009 has decreased by 1% from 72% to 71%. Figure 3 (Summary of Parking Capacity) and Table 1 (Summary of Parking Usage on Campus) show a comparison of parking utilization over the last five years. The decrease may be the result of many factors but can be mainly attributed to the price of gasoline, the economy and increased environmental awareness. Other factors that may have influenced the change in utilization may include changes in CTS bus routes (driving through campus), better OSU shuttle routes and connections, elimination of free parking and an increase in on-campus housing occupancy (from 91.8% to 95.5% from fall of 2008 to 2009 (increase in 153 individuals residing on campus)).

Parking Demand (Permit Sales)

Parking demand is defined by parking lot utilization or by the sale of campus parking permits (from September 1st through October 8th). OSU uses parking demand ratios to project future demand in conjunction with parking lot utilization. The parking demand ratio is calculated by either the ratio of permitted vehicles to campus population

or the ratio of vehicles parked to campus population. Table 2 (OSU Peak Time Parking Demand Ratios) below shows the number of parking permits by three categories; faculty/staff, student, and total.

Parking Demand Ratios	Fall 2008				Fall 2009			
	Headcount	Parking Occupancy per Headcount	Permits	Parking Occupancy per Permit	Headcount	Parking Occupancy per Headcount	Permits	Parking Occupancy per Permit
Student	20,320	14%	2,995	98%	21,969	12%	3,461	79%
Faculty/Staff	4,710	37%	2,644	66%	4,640	38%	2,713	64%
Total	25,030	19%	5,639	83%	26,609	17%	6,174	73%

Table 2. Peak Time Parking Demand Ratios

The data in Table 2 indicates that 17% (12% Student, 38% Faculty/Staff) of the campus population parks on campus during peak time. Furthermore, the table indicates that 73% (79% Student, 64% Faculty/Staff) of the people who purchased parking permits were parking on campus at the time when the survey was conducted. Compared to 2008, the number of permits has increased by 535 permits (increase of 466 Students & 69 Faculty/Staff) or 8.7%. The increase in demand of parking permits and decrease in utilization is unexpected and is difficult to speculate on the reasoning.

Parking Utilization by Sector

Sector	Parking Capacity (vehicles)			Parking Occupancy (vehicles)			% Occupancy		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
A	130	130	130	122	84	126	94%	65%	97%
B	948	948	948	787	761	709	83%	80%	75%
C	2,637	2,606	2,319	2,460	2,285	2,066	93%	88%	89%
D	1,265	1,265	1,263	1,169	1,058	1,064	92%	84%	84%
E	253	253	252	192	195	191	76%	77%	76%
F	1,416	1,394	1,395	448	447	433	32%	32%	31%
G	1,361	1,364	1,364	883	906	902	65%	66%	66%
H	46	46	46	5	1	6	11%	2%	13%
J	0	0	0	0	0	0	n/a	n/a	n/a
Total	8,056	8,006	7,717	6,066	5,737	5,495	75%	72%	71%

Table 3. Summary of Parking Usage on Campus by Sector

The OSU Campus Master Plan divides the campus into nine sectors, each with its own development allocation, including parking. Table 3 (Summary of Parking Usage on Campus by Sector) shows parking demand and utilization by campus sector.

Attachment B - Parking Capacity by Campus Sector Map shows a map depicting relative sector parking capacity by sector. **Attachment C - Campus Survey Results Map** shows a map depicting sector utilization as well as individual parking lot utilization.

On a sector by sector basis (excluding sector J that has no parking) Sectors F and H maintain less than 50% of utilized capacity. Sector F's lack of utilization (31%) is mainly attributable to the Reser Stadium parking lot being underutilized (14% on average). Sector H shows underutilization (13%) less than 50% but does not hold a significant

amount of parking capacity (46 spaces), is only used for athletic events and is not patrolled by TAPS. Sector G's lack of utilization (66%) is mainly attributable to the underutilization of the parking structure (59% on average).

Additional Information/Contacts

For additional information and or questions concerning this report contact the following.

- David Dodson, Senior Planner,
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Attachments

- Attachment A - Parking Survey Overview Map
- Attachment B - Parking Capacity by Campus Sector Map
- Attachment C - Campus Survey Results Map

Parking Capacity by Campus Sector Attachment B



A
Total Capacity
130

B
Total Capacity
948

C
Total Capacity
2,319

D
Total Capacity
1,263

E
Total Capacity
252

F
Total Capacity
1,395

G
Total Capacity
1,364

H
Total Capacity
46

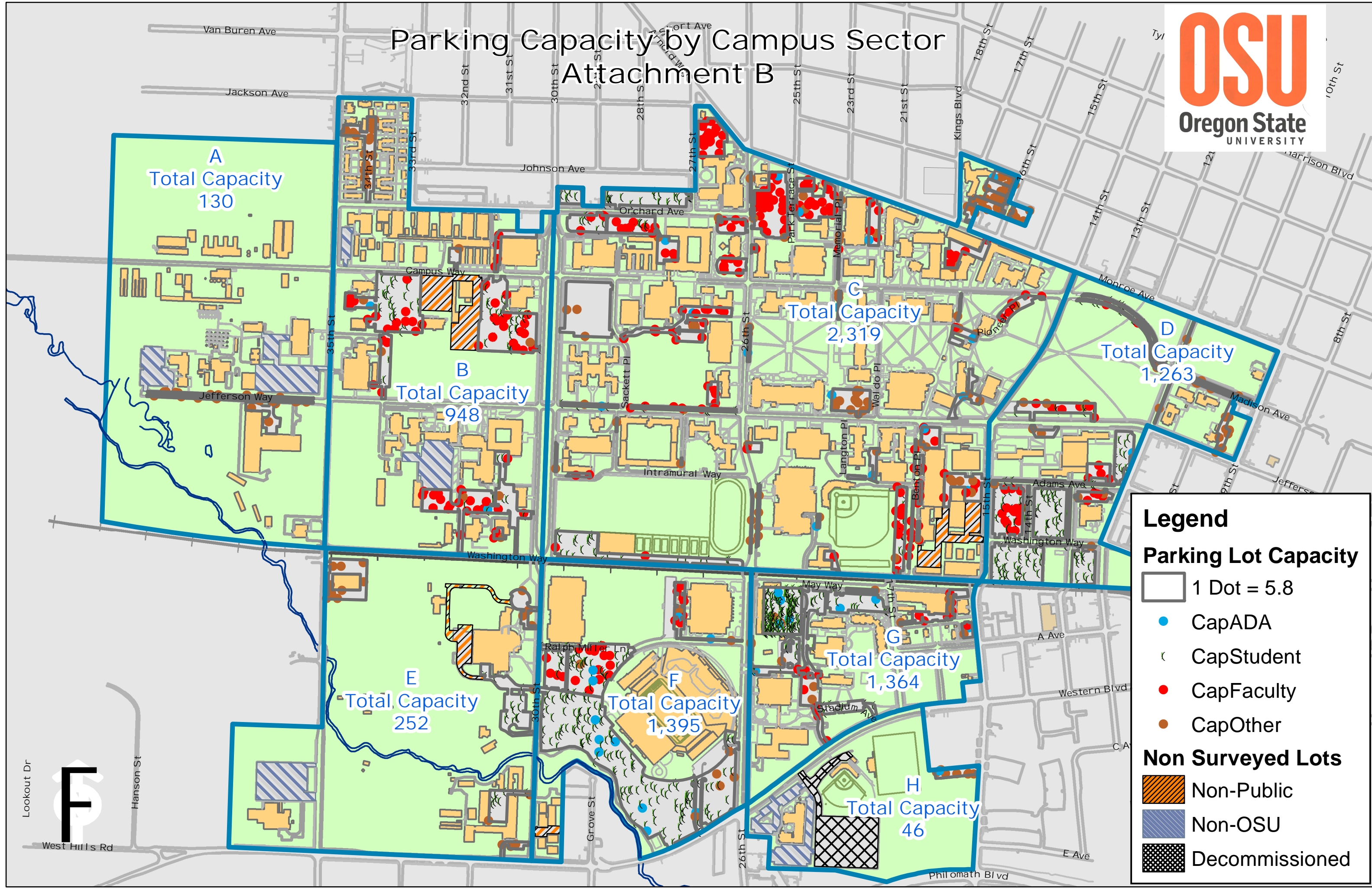
Legend

Parking Lot Capacity

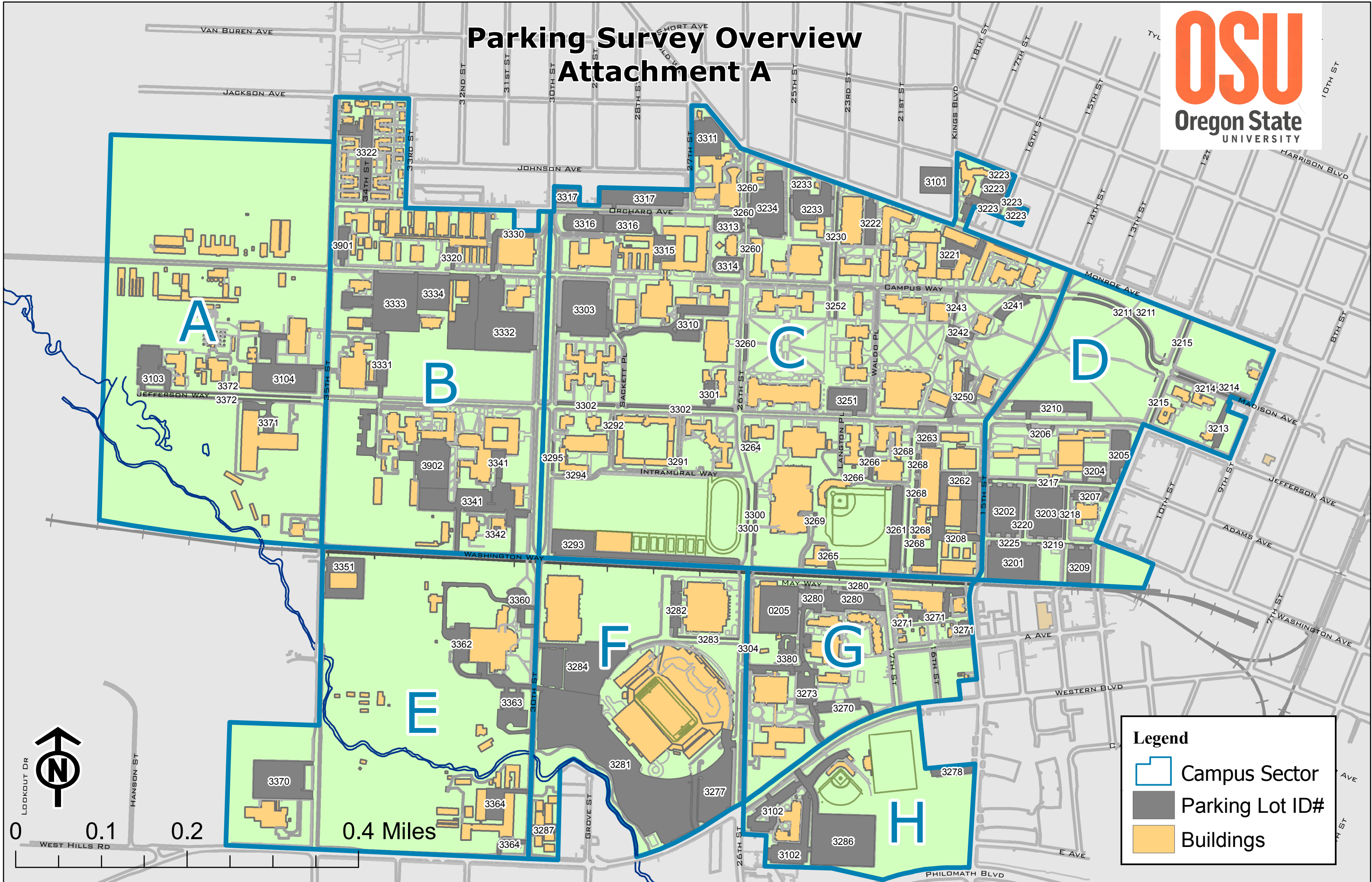
- 1 Dot = 5.8
- CapADA
- CapStudent
- CapFaculty
- CapOther

Non Surveyed Lots

- Non-Public
- Non-OSU
- Decommissioned



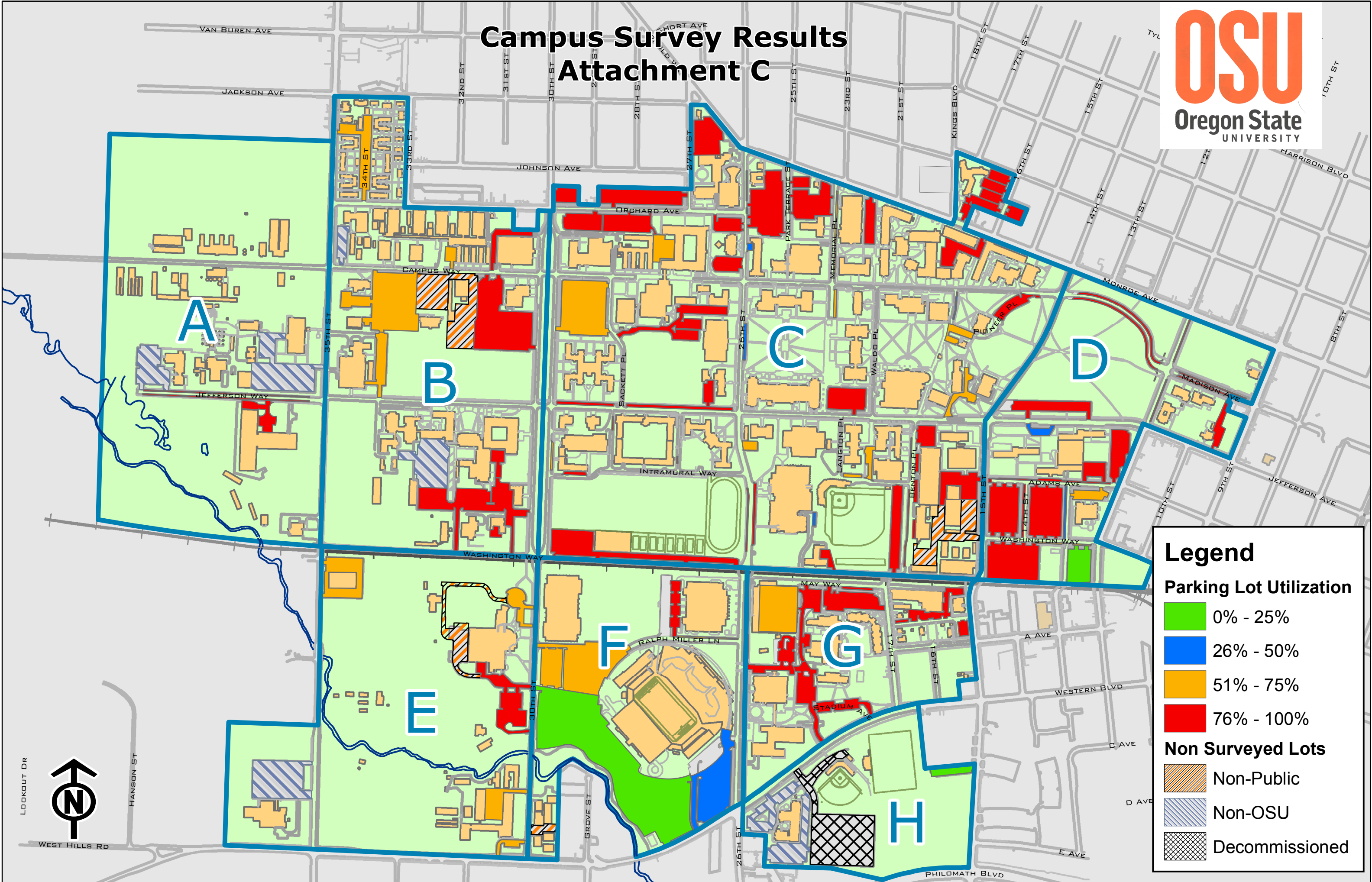
Parking Survey Overview Attachment A



Legend

- Campus Sector
- Parking Lot ID#
- Buildings

Campus Survey Results Attachment C



Legend

Parking Lot Utilization

- 0% - 25%
- 26% - 50%
- 51% - 75%
- 76% - 100%

Non Surveyed Lots

- Non-Public
- Non-OSU
- Decommissioned



LOOKOUT DR

WEST HILLS RD

HANSON ST

VAN BUREN AVE

JACKSON AVE

A

B

E

F

C

D

G

H

32ND ST

31ST ST

30TH ST

28TH ST

27TH ST

26TH ST

25TH ST

23RD ST

21ST ST

18TH ST

17TH ST

15TH ST

14TH ST

13TH ST

12TH ST

ORCHARD AVE

CAMPUS WAY

JEFFERSON WAY

SACKETT PL

INTRAMURAL WAY

WASHINGTON WAY

MAY WAY

RALPH MILLER LN

STADIUM AVE

PHILOMATH BLVD

27TH ST

26TH ST

25TH ST

23RD ST

21ST ST

18TH ST

17TH ST

15TH ST

14TH ST

13TH ST

12TH ST

MEMORIAL PL

WALDO PL

LANGTON PL

BENTON PL

ADAMS AVE

WASHINGTON WAY

A AVE

WESTERN BLVD

C AVE

D AVE

E AVE

34TH ST

33RD ST

35TH ST

30TH ST

29TH ST

28TH ST

27TH ST

26TH ST

25TH ST

23RD ST

21ST ST

PARK TERRACE ST

PIONEER PL

MONROE AVE

MADISON AVE

10TH ST

9TH ST

JEFFERSON AVE

8TH ST

7TH ST

6TH ST

5TH ST

KINGS BLVD

HARRISON BLVD

TYLER AVE

10TH ST

9TH ST

JEFFERSON AVE

8TH ST

7TH ST

6TH ST

5TH ST

4TH ST