OSU Parking Utilization Study and Neighborhood Street Parking Study

Fall Term 2010
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1. OSU Parking Utilization Study

Oregon State University’s Campus Master Plan (CMP) includes policies for how OSU will address existing and future parking demand. CMP Chapter 7 – Parking Plan requires the planning and construction of new parking facilities if the campus parking utilization rate reaches 85% to 90%. The OSU Parking Utilization Study is intended to provide an analysis of the parking conditions for on-campus parking facilities. (See Attachment A - Parking Survey Overview Map). An annual parking survey is completed for on-campus parking as well as an every 5-year neighborhood parking districts study for two areas adjacent to the OSU boundary.

**OVERVIEW**

OSU’s 2010 campus parking utilization is 74%. This is an increase of 3% between 2009 and 2010. The OSU campus population also increased between 2009 and 2010 by 6.9% (26,609 to 28,591), which may have impacted the utilization rate. There was a decrease of parking capacity of 92 spaces between 2009 and 2010. The decrease in available parking most likely increased the parking utilization.

**PARKING PERMITS**

The number of parking permits issued in 2010 included 3,487 student permits and 2,812 faculty/staff permits for a total of 6,299 permits. There was an increase of 125 parking permits: 26 student (1%) and 99 faculty/staff (4%) for an average increase of 2%.

![Figure 1: Parking Permits by Employee](image-url)

Student permit purchases were 15% of the total student population of 23,761, and faculty/staff permits were 58% of the total faculty and staff population. Over the past 5 years, the number of student parking permits issued has decreased on an average of 3% per year.
METHODOLOGIES
The study was conducted during the 4th week of the fall academic term, typically when a university is at its peak capacity. The study period was completed on two (2) separate days: a typical laboratory day (Tuesday, October 19) and a typical lecture day (Wednesday, October 20). A count of parking space vacancies was completed by Transit and Parking Services staff on each day of the survey.

CAMPUS POPULATION AND PARKING CAPACITY
To effectively evaluate how OSU is planning for its future parking needs, Figure 2 (2010 OSU Population Breakdown) shows the campus population trend over the past 5 years. The total campus population has increased approximately 16.9% since 2006, with the largest percent increase between 2009 and 2010 of 6.9%.

Figure 2: 2010 OSU Campus Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
<th>Faculty/Staff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>4,200</td>
<td>4,755</td>
<td>8,955</td>
</tr>
<tr>
<td>2007</td>
<td>4,371</td>
<td>5,125</td>
<td>9,496</td>
</tr>
<tr>
<td>2008</td>
<td>4,710</td>
<td>5,490</td>
<td>10,200</td>
</tr>
<tr>
<td>2009</td>
<td>4,940</td>
<td>5,760</td>
<td>10,699</td>
</tr>
<tr>
<td>2010</td>
<td>4,830</td>
<td>5,830</td>
<td>10,660</td>
</tr>
</tbody>
</table>

% Change: 5.0% 5.0% 2.4% 5.9% 6.9%

PARKING FACILITIES
There are two primary parking facilities on campus: a parking structure and parking lots. All lots on campus include permitted, metered, and open (free) parking spaces. OSU has open on-street parking along Jefferson Way, west of 35th Street, and within Sector G on 16th and ‘A’ Streets. During the course of the study period, a large open lot was also used for open parking and is located behind the Valley Softball Stadium and east of the Hilton Garden Inn. (See Attachment A – Study Overview)
Facilities Services- Campus Planning  
February, 2011  
2010 OSU PARKING UTILIZATION STUDY

PARKING SYSTEM
OSU’s parking is supported by purchasing a parking permit. There are pay-lots for short-term parking located in specific areas on campus. Permits are sold by employee and/or vehicular type: faculty/staff, student, emeritus, motorcycle, and visitor. Parking spaces within lots are denoted at the entrances of each lot and are labeled according to their permitted use. Faculty/staff permits can be used in student lots. Special permits are available for OSU service vehicles, as well as vendors and visitors to campus. There are also partial term and daily permits. Figure 3 below shows the comparison of OSU’s parking capacity related to the campus population over the past 5 years.

Figure 3: OSU Parking Capacity and Enrollment Trend

Parking capacity was reduced by 92 spaces, and parking capacity has decreased since 2008, mostly in Sector C due to construction in parking lots. Parking displacement in Sector C must be constructed elsewhere on the main campus at a 1-1 ratio.¹ Therefore, new parking lots will be constructed at the southwest intersection of Campus Way and 35th Street in 2011 to replace the parking spaces removed to construct the Hallie Ford Center and the Outdoor Recreation Field Project. To mitigate the loss of parking for the Linus Pauling Center, two parking lots were constructed at the intersection of 11th and Washington Way and were completed just after this study was completed. With the construction of these lots, it is anticipated the utilization will slightly decrease.

¹ CMP Chapter 5(d. Parking) page 5-6.
PARKING UTILIZATION

OSU’s parking utilization is at 74% during peak hours. Parking utilization is calculated as the ratio of occupied spaces to the total parking spaces. A 90% utilization rate requires OSU to construct new parking facilities. (See Attachment C - Campus Survey Results Map

PARKING OCCUPANCY

Parking occupancy slightly decreased between 2009 and 2010. Figure 3 (OSU Parking Capacity and Enrollment Trends) and Table 1 (Summary of Parking Usage on Campus) show the comparison of parking utilization for the last five years. The decrease may have been affected by an increase in parking permits in 2009. OSU completed a bicycle utilization study during the parking study and there were significant increases in bicycle utilization. This may have influence the decreased parking utilization as more people may be riding their bicycles to campus.

Table 1: Summary of OSU Parking Usage

<table>
<thead>
<tr>
<th></th>
<th>Parking Capacity (vehicles)</th>
<th>Parking Occupancy (vehicles)</th>
<th>% Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>4,780</td>
<td>4,161</td>
<td>4,366</td>
</tr>
<tr>
<td>Faculty/Staff</td>
<td>1,907</td>
<td>1,950</td>
<td>1,954</td>
</tr>
<tr>
<td>ADA</td>
<td>211</td>
<td>248</td>
<td>264</td>
</tr>
<tr>
<td>Other</td>
<td>1,294</td>
<td>1,696</td>
<td>1,430</td>
</tr>
<tr>
<td>Total</td>
<td>8,192</td>
<td>8,055</td>
<td>8,006</td>
</tr>
</tbody>
</table>
PARKING DEMAND

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 total number of parking permits by two categories: 1) faculty/staff; and 2) student. Sixteen (16%) percent of the total campus population park on campus, and 74% of the population purchase parking permits. Compared with 2009, the number of permits purchased increased by 125 permits (26 Students and 99 Faculty/Staff) or 3.9%.

<table>
<thead>
<tr>
<th>Parking Utilization by Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>E</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>G</td>
</tr>
<tr>
<td>H</td>
</tr>
<tr>
<td>J</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

On a sector by sector basis Sectors F and H maintain the lowest utilization. Sector F (parking around Reser Stadium) has three (3) large lots and is utilized less than 40%. This is due to the change in 2006 from open parking to a permitted lot. Sector H low utilization is quite low, but also does not have a significant amount of parking capacity (46 spaces), and is mainly used for athletic events. At various times, there is a gravel lot that has been used previously for open parking, however, it is not patrolled by TAPS and so isn’t included.
in the parking study. Sector G has shown low utilization which is where the parking garage is located. Its utilization increased 1% between 2009 and 2010.

**FUTURE PARKING FACILITIES**

Future parking facilities are planned according to the policies set forth in the Campus Master Plan. As stated earlier, parking capacity decreased by 92 spaces. To mitigate the displacement of the parking, new facilities will be constructed at the intersection of SW Campus Way and 35th Street. A new parking lot is being constructed north of the OSU INTO building and will be designated open/public parking to replace the parking removed along 17th and ‘A’ streets. Additional parking will be added to parking lot south of Bloss Hall.

**OSU CAMPUS PARKING UTILIZATION FINDINGS**

- The parking utilization rate increased 3% between 2009 and 2010, from 71% to 74%. Over the past five years, the utilization is on average 73%.
- Parking capacity decreased by 92 spaces. The 5-year trend shows that parking capacity has decreased by 6.9% over the past five (5) years.
- Parking demand is lowest in the student population where only 15% of the students purchase parking permits. Conversely, 58% of the faculty and staff population purchase parking permits.
- Sector F has three (3) large lots totaling 1142 parking spaces that are being utilized at an average of 40%. This is up slightly from the past three years, where utilization was an average of 33%.
- Sector H has a large open parking lot that is not patrolled by TAPS therefore its utilization is not included in the study. Other lot utilization is less than 25%. This is an interesting data point because there is a shuttle stop in this location.
2. Neighborhood Parking Utilization Study

OVERVIEW
OSU completes a neighborhood utilization study every five years. From 2003 until 2007, OSU completed an annual neighborhood study; however in 2007, the City of Corvallis and OSU agreed to complete a neighborhood study every five years. To have the study fall within an established 5-year timeframe that will work well with the Campus Master Plan update, a 2010 study was completed.

The 2010 Neighborhood Street Parking Study was completed during the same days as the OSU Main Campus Parking Study (October 19 and October 20). The hours for the survey began on the hour from 9:00 AM to 1:00 PM for both the College Hill (District A) and North College Hill (District B), north and west of the OSU main campus. The survey was completed by Facilities Services. A graphical representation of the results for 2007 and 2010 is indicated below in Figure 5 – Trends for Neighborhood Parking Utilization.
DISTRICT FINDINGS
The College Hill (District A) parking district is bounded between 27th and 32nd Streets east/west and between Van Buren and Orchard Avenue north/south. The North College Hill (District B) district is bounded between 14th and 24th Street east/west and between Harrison Blvd. and Monroe Avenue north/south. The overall street parking utilization by time period for this survey is indicated below in Table 4 below.

Table 4: 2010 Neighborhood District Parking Utilization

<table>
<thead>
<tr>
<th>Time Period</th>
<th>College Hill (District A)</th>
<th>North College Hill (District B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capacity=208 vehicle spaces*</td>
<td>Capacity=284 vehicle spaces*</td>
</tr>
<tr>
<td></td>
<td>Resident Permit Occupied</td>
<td>Meter Permit Occupied</td>
</tr>
<tr>
<td>08:00 AM to 10:00 AM</td>
<td>63</td>
<td>59</td>
</tr>
<tr>
<td>10:00 AM to 11:00 AM</td>
<td>63</td>
<td>91</td>
</tr>
<tr>
<td>11:00 AM to 12:00 PM</td>
<td>66</td>
<td>84</td>
</tr>
<tr>
<td>12:00 PM to 01:00 PM</td>
<td>65</td>
<td>74</td>
</tr>
<tr>
<td>Average</td>
<td>64</td>
<td>75</td>
</tr>
</tbody>
</table>

*Parking spaces based on City of Corvallis Land Development Code regulation.

PARKING CAPACITY METHODOLOGY
Street capacity was determined using City of Corvallis parking space standards of 22' x 18' for contiguous parking and 18' x 8' for single parking. Because streets are unmarked more compact vehicles can fit into a series of unmarked spaces than is indicative of capacity. This could affect the overall utilization.

SUMMARY: DISTRICT A FINDINGS
District A has an overall average utilization rate of 70%. This is a 2% DECREASE from the survey completed in 2007. Streets nearer to the campus boundary (See Attachment A - Parking Survey Overview Map) reflect higher utilization than parking further away. Utilization is lowest from 9AM to 10AM, and stays relative constant the rest of the survey period. In 2007, the number cars with OSU permits were minimal; however, the 2010 study shows an increase. Eight (8) cars with current OSU permits were parked in District A. (See Attachments D and E.)

SUMMARY: DISTRICT B FINDINGS
District B has an overall average utilization rate of 86%. This is a 12% DECREASE from the 2007 survey. Utilization is highest between 9AM and 11AM, and decreases from 11AM to Noon. Utilization increases 5% over the noon hour. Nine (9) cars with current OSU permits were parked in District B. (See Attachments F and G.)

OVERALL SUMMARY OF DISTRICTS A AND B
Together the neighborhood districts north of the campus show a 78% overall parking utilization rate. The 2007 average utilization rate was 96%. This is an 8% decrease from 2007.
DISTRICT PARKING UTILIZATION STRATEGIES
Strategies that may be considered to improve parking both at OSU and in the residential districts include but are not limited to the following:

- Analysis of the parking study shows that more cars are parked on streets than what is available (based on 22’ x 8’ standard contiguous parking spaces and 18’ x 8’ single parking spaces). Parking on streets where parking is over 100% of capacity (“hot spots”) may be reduced if parking enforcement were available in each neighborhood district during peak times to help change parking behaviors.

- The City of Corvallis does not stripe parking spaces in the neighborhoods; therefore this may result in haphazard parking which the study refers to as a “hotspot.”

- OSU will complete a Neighborhood Parking District Study fall term of 2015 in conjunction with the OSU parking study to identify potential strategies to establish and maintain acceptable parking utilization rates within neighborhood parking districts around the campus boundary.

ADDITIONAL INFORMATION/CONTACTS
For additional information and or questions concerning this report contact the following.
Patty Katz, Campus Planning Manager, 541-737-0917, patty.katz@OregonState.edu

Attachments
Attachment A - Parking Survey Overview Map
Attachment B - Parking Capacity by Campus Sector Map
Attachment C - Campus Survey Results Map
2010 Parking Utilization Study
Parking Utilization by Sector

Legend
- CMP Boundary
- CMP Sectors
- Percent Use by Sector:
  - 25% and Below
  - 25 - 50%
  - 51 - 75%
  - 76% - 100%

Attachment C
2010 Neighborhood Street Parking Study
Attachment F

West College Hill (District A)
Parking Survey Results

Legend
District A Boundary
Percent Utilization (A)
- 25% and Under
- 26 - 50%
- 51 - 75%
- 75 - 95%
- 95% and Over

*Parking capacity based on Corvallis Land Development Code regulations (Vehicle Capacity indicated in callout)
2010 Neighborhood
Street Parking Study
Attachment D

North College Hill (District B)
Parking Survey Results

Legend

- District B Boundary
- Percent Utilization (B)

- 0 - 25%
- 25 - 50%
- 51 - 75%
- 76 - 95%
- 95 - 100%

*Parking capacity based on Corvallis Land Development Code regulations (Vehicle Capacity indicated in callout)