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This document identifies general management strategies to address the immediate and future parking goals and objectives of the University. The longer term strategies identified in this document are only preliminary in nature and will be refined and modified as the campus wide Master Plan solidifies.

“Parking is truly an integral part of the overall transportation system...
PARKING PLAYS A KEY ROLE in a multimodal transportation system especially considering that a vehicle is parked for the majority of the day and requires a parking space at each origin and destination. Typically, the focus of a transportation system is spent on the one to two hours that vehicles are on the road, but to manage and operate an efficient transportation system, it is necessary to address parking issues which work hand-in-hand with managing traffic congestion as complementing the non-motorized system. Parking is truly an integral part of the overall transportation system and many of the management practices in this report provide benefits beyond just parking and need to work in conjunction with the overall vehicular and non-motorized circulation plan.

Historically parking was a free and plentiful commodity and as growth occurred, parking demands increased and parking supplies decreased. Over time the University has continued to implement strategies to improve efficiencies and manage the demand through pricing and more structured regulations. It is anticipated that the balance between parking supply and demand will continue to change as the University grows and the following goals have been identified by the University to guide future decisions related to parking.

The parking goals have been identified as follows:

» Maintain the current level of service and provide sufficient, but not excessive, parking for campus residents and commuters.

» Create a safer, more connected, and friendlier pedestrian environment in the academics area of campus by moving available parking to the outer edges.

» Identify areas of high parking demand and recommend solutions through providing new facilities, renovating existing facilities, and reducing parking demand.

» Encourage students and staff to park in CWU parking areas.
EXISTING CONDITIONS

This section describes existing parking conditions and operations on the Central Washington University campus in Ellensburg, WA. A summary of the current parking program, facilities, utilization and parking alternatives are discussed.

PARKING FACILITIES

There are approximately 4,456 parking stalls currently provided in 51 lots throughout the University’s campus. These lots range in size from very small lots to lots with over 300 stalls. This includes parking provided in the outer residential areas dedicated to Brooklane Village and Wahle Apartments. Approximately 380 of the spaces are reserved for on-campus residents and another 264 are either short-term timed spaces for high-turnover locations or reserved for on-campus uses such as service vehicles.

The majority of parking lots are paved and striped; however, several of the areas located on the north end of the campus have a compact gravel surface. All parking lots are identified based on their grid location previously used by Parking Services, with each parking lot having a specific use classification. The following classifications are currently used and help manage the available parking supply:

» General Campus Parking (24 hour)
» General Campus Non-Overnight Parking
» General or Student Village APZ
» Free Parking Lot
» On-Campus Resident Parking
» Timed and Reserved Parking Lots

In addition to managing parking through the use classification of each lot, parking permits are utilized for all lots except for four free lots located on the north end of campus. Permits are available for daily, quarterly, academic or calendar year periods. Holders of these permits can park in a selection of parking lots depending on the type of permit and time of day. Figure 1 illustrates the location, classification, and supply for each of the parking lots on campus. Table 1 is also provided to summarize the existing characteristics of the parking lots identifying the supply, type of permit required, and if overnight parking is allowed.
Figure 1: Campus Parking by Type
Table 1: Existing Parking Lots

<table>
<thead>
<tr>
<th>LOT</th>
<th>SUPPLY</th>
<th>LOT TYPE</th>
<th>OVERNIGHT PARKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-5</td>
<td>24</td>
<td>On-Campus Resident</td>
<td>Yes</td>
</tr>
<tr>
<td>B-8</td>
<td>16</td>
<td>Timed/Reserved</td>
<td>No</td>
</tr>
<tr>
<td>Black</td>
<td>6</td>
<td>Reserved</td>
<td>Yes</td>
</tr>
<tr>
<td>C-6</td>
<td>41</td>
<td>Faculty / Staff</td>
<td>Yes</td>
</tr>
<tr>
<td>C-9</td>
<td>51</td>
<td>Faculty / Staff, General</td>
<td>No</td>
</tr>
<tr>
<td>D-5</td>
<td>101</td>
<td>General</td>
<td>No</td>
</tr>
<tr>
<td>Davies</td>
<td>8</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>E-4</td>
<td>52</td>
<td>Faculty / Staff, Timed / Reserved</td>
<td>Yes</td>
</tr>
<tr>
<td>E-13</td>
<td>29</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>E-14</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight Tech</td>
<td>81</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>Food Warehouse</td>
<td>8</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>G-15</td>
<td>128</td>
<td>Faculty / Staff</td>
<td>Yes</td>
</tr>
<tr>
<td>G-16</td>
<td>262</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>H-6</td>
<td>31</td>
<td>Timed / Reserved, General</td>
<td>No</td>
</tr>
<tr>
<td>H-15</td>
<td>122</td>
<td>General</td>
<td>No</td>
</tr>
<tr>
<td>H-18</td>
<td>75</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>Health Center</td>
<td>5</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>J-8</td>
<td>15</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>Hitchcock</td>
<td>10</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>I-15</td>
<td>185</td>
<td>Timed / Reserved, General</td>
<td>No</td>
</tr>
<tr>
<td>I-18</td>
<td>11</td>
<td>Faculty / Staff</td>
<td>Yes</td>
</tr>
<tr>
<td>I-19</td>
<td>105</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>Jongeward</td>
<td>42</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>Kamola</td>
<td>9</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>K-18</td>
<td>30</td>
<td>Faculty / Staff, General</td>
<td>Yes</td>
</tr>
<tr>
<td>LOT</td>
<td>SUPPLY</td>
<td>LOT TYPE</td>
<td>OVERNIGHT PARKING</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>----------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>L-8</td>
<td>22</td>
<td>Faculty / Staff, Timed / Reserved</td>
<td>Yes</td>
</tr>
<tr>
<td>M-2</td>
<td>23</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>N-19</td>
<td>305</td>
<td>Faculty / Staff, Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>N-20</td>
<td>178</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>O-5</td>
<td>289</td>
<td>Faculty / Staff, Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>P-8</td>
<td>152</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>Q-14</td>
<td>253</td>
<td>Timed / Reserved, General</td>
<td>No</td>
</tr>
<tr>
<td>Q-17</td>
<td>109</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>R-19</td>
<td>89</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>S-10</td>
<td>216</td>
<td>Faculty / Staff, Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>S-20</td>
<td>108</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>T-22</td>
<td>71</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>U-8</td>
<td>25</td>
<td>Faculty / Staff, Timed / Reserved</td>
<td>Yes</td>
</tr>
<tr>
<td>U-22</td>
<td>76</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>V-7</td>
<td>147</td>
<td>Free</td>
<td>No</td>
</tr>
<tr>
<td>V-18</td>
<td>83</td>
<td>Timed / Reserved, General</td>
<td>Yes</td>
</tr>
<tr>
<td>V-22</td>
<td>65</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>W-12</td>
<td>54</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welcome Center</td>
<td>?</td>
<td>Timed / Reserved</td>
<td>No</td>
</tr>
<tr>
<td>X-12</td>
<td>126</td>
<td>General</td>
<td>Yes</td>
</tr>
<tr>
<td>X-22</td>
<td>106</td>
<td>Free</td>
<td>Yes</td>
</tr>
<tr>
<td>X-23</td>
<td>83</td>
<td>Free</td>
<td>Yes</td>
</tr>
<tr>
<td>X-24</td>
<td>45</td>
<td>Free</td>
<td>Yes</td>
</tr>
<tr>
<td>X-25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooklane Village</td>
<td>279</td>
<td>On-Campus Resident</td>
<td>Yes</td>
</tr>
<tr>
<td>Wahle Hall</td>
<td>100</td>
<td>On-Campus Resident</td>
<td>Yes</td>
</tr>
</tbody>
</table>
PARKING PROGRAM

The campus Parking Services is a division of the University Police and Parking Services at CWU which manages all parking aspects for the campus. This includes issuing parking permits and enforcing parking lot use, as well as directing guests and providing disabled vehicle services.

Parking Permits and Passes

The following types of permits are available from CWU:

» **Student General Parking** permits are available to all students for purchase. These permits are available on a quarterly, academic year, or calendar year basis. The holders of these permits are allowed to park in both Overnight and Non-Overnight General Campus parking lots.

» **Faculty & Staff General Parking** permits are available to full-time staff or faculty members of CWU. This permit is also available on a quarterly, academic year, or calendar year basis. Holders of these permits are allowed to park in all General Campus parking lots as well as specially designated Faculty / Staff parking lots and areas.

» **APZ** permits are given to students living in the on-campus housing including the Student Village (multiple lots), Brooklane Village, Wahle Apartments, and the Getz-Short Apartments (B-5). Permit holders are only allowed to park in lots designated as APZ or On-Campus Resident lots and cannot park in General Campus Parking lots without obtaining an additional permit. APZ permits are included for free for those who request them and are managed and distributed by CWU Parking Services.

» **Presidential** permits are given to donors of CWU issued by the CWU Foundation and are valid in Staff and Student lots. These permits are valid for one year from the date of donation. There is a set donation amount to obtain the permit.

» **Aquasize/Wellness** permits are available to community members on a quarterly basis. These permits are only valid in the W-12 and Q-14 lots. These permits are meant for members of the Ellensburg community who use the campus’s Aquatic Facility or Recreation Center during specified times of the day.

» **Daily Passes** are available at dispensing machines located in eight lots throughout campus, the CWU Parking office and the Cashiers office. These passes are valid for one day only and may only be used in the General Campus parking lots.

Temporary permits are available on a weekly or two-week and are intended for short-term parking on the Campus. Permit holders are allowed to park in General Campus Parking lots only.

Table 2 provides a summary of the number of permits issued for each specific use for the 2016-2017 school year to provide an understanding of the magnitude of each type of user.

**Daily Passes**

Passes are sold on a daily basis to those without longer-term permits. Passes are valid for 24 hours and are available via dispensers located in the major General Campus Parking lots including C-9, D-5, G-16, O-5, P-8, N-19, Q-14, and I-15. These passes are only valid in the General Campus Parking Lots. Data from the parking dispensers for the 2016 – 2017 school year (July 2016 through June 2017) are shown in Table 3.

As shown, there were 18,535 daily passes sold during the 2016 – 2017 school year. Daily permit sales were highest in April with 1437 passes sold.
### Table 2: Existing On-Campus Parking Permits (2016-2017 school year)

<table>
<thead>
<tr>
<th>LOT TYPE</th>
<th>PERMITS ISSUED</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>4,062</td>
<td>73%</td>
</tr>
<tr>
<td>Staff</td>
<td>959</td>
<td>17%</td>
</tr>
<tr>
<td>Aquasize</td>
<td>46</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Wellness</td>
<td>40</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Temporary</td>
<td>137</td>
<td>2%</td>
</tr>
<tr>
<td>Presidential</td>
<td>107</td>
<td>4%</td>
</tr>
<tr>
<td>Emeritus</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,601</strong></td>
<td></td>
</tr>
</tbody>
</table>


### Table 3: Existing On-Campus Parking Permits (2016-2017 school year)

<table>
<thead>
<tr>
<th>LOT</th>
<th>YEARLY PASSES</th>
<th>HIGHEST MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-9</td>
<td>803</td>
<td>120 (Oct)</td>
</tr>
<tr>
<td>D-5</td>
<td>492</td>
<td>121 (June)</td>
</tr>
<tr>
<td>G-16</td>
<td>5,974</td>
<td>815 (April)</td>
</tr>
<tr>
<td>I-15</td>
<td>2,833</td>
<td>348 (April)</td>
</tr>
<tr>
<td>O-5</td>
<td>2,243</td>
<td>285 (Oct)</td>
</tr>
<tr>
<td>P-8</td>
<td>897</td>
<td>165 (March)</td>
</tr>
<tr>
<td>N-19</td>
<td>1,738</td>
<td>274 (April)</td>
</tr>
<tr>
<td>Q-14</td>
<td>3,555</td>
<td>531 (March)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18,535</strong></td>
<td><strong>1437 (April)</strong></td>
</tr>
</tbody>
</table>

1. September 2016 through August 2017
EXISTING PARKING UTILIZATION

The CWU Parking Services collected parking utilization counts at 3,858 parking stalls located in 36 of the core parking lots on-campus in September 2016. The counts were conducted on Wednesday September 28, Thursday September 29, and Friday September 30. Typically, Monday and Friday are not used in travel analysis due to the variability in trips during these days, and Fridays typically have a smaller class load on campus. For these reasons, parking utilization was calculated by averaging counts on Wednesday and Thursday. Counts were conducted at 10:00 a.m. and 2:00 p.m. during each count period. Figures 2 and 3 display the parking utilization for each lot during the morning (10:00 a.m.) and afternoon (2:00 p.m.) study periods.

Table 4 displays the average demand and utilization for each parking lot type during the 2015 – 2016 school year. As shown, the highest parking demand is for both the 24 hour and non-overnight General Campus lots. As mentioned, these lots are accessed by both students and staff and are spread throughout the campus near academic buildings and residence halls. The non-overnight lots are also approximately 87 percent full during the morning count period. Additionally, the two free lots were observed to have a utilization of around 43% percent during the morning peak. Overall, parking demand on-campus is higher during the morning. The average on-campus parking utilization was 76 percent during the morning count period and 62 percent during the afternoon count period. This means that there are approximately one-quarter or approximately 900 of the campus’s parking stalls available even during the hours of highest demand.

Although Table 4 shows that the campus has many available parking stalls, the location of the available stalls is not always convenient to the location of the highest parking demand. The campus south of Dean Nicholson Boulevard contains the majority of the academic buildings, the student union and recreation center, and on-campus student residence halls near E 11th Avenue. The north part of campus contains large parking lots that serve the Student Village and fields and stadiums. The campus was broken into six zones to analyze the utilization with respect to the surrounding buildings and facilities. The average weekday demand and utilization for each zone is shown in Table 5. A figure showing the zone boundaries, supply, and weekday morning utilization is shown in Figure 4.

As Table 5 exhibits, the parking lots located in zones 1 and 2 on the southern part of campus have over 80 percent utilization during the morning count period. These areas include the visitor parking areas and are the first spaces that vehicles traveling from downtown Ellensburg encounter as they arrive to the campus. Zone 1 has the highest utilization rate across the morning and afternoon periods. As mentioned previously, these parking stalls are also located near many academic buildings and residence halls and are most convenient for faculty and students. Figure 4 illustrates parking utilization by zone for the AM period, which has the highest overall utilization rate during the study periods.
### Table 4: The average demand and utilization for each parking lot type during the 2016 – 2017 school year.

<table>
<thead>
<tr>
<th>LOT TYPE</th>
<th>TOTAL SUPPLY</th>
<th>MORNING¹</th>
<th>AFTERNOON²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEMAND</td>
<td>UTILIZATION</td>
<td>DEMAND</td>
</tr>
<tr>
<td>Faculty and Staff</td>
<td>269</td>
<td>251</td>
<td>93%</td>
</tr>
<tr>
<td>Free</td>
<td>382</td>
<td>165</td>
<td>43%</td>
</tr>
<tr>
<td>General Campus (24 Hour)</td>
<td>1,423</td>
<td>942</td>
<td>66%</td>
</tr>
<tr>
<td>General Campus (Non-Overnight)</td>
<td>1,155</td>
<td>1,000</td>
<td>87%</td>
</tr>
<tr>
<td>Student Village APZ</td>
<td>629</td>
<td>589</td>
<td>94%</td>
</tr>
<tr>
<td><strong>Total Counted</strong></td>
<td><strong>3,858</strong></td>
<td><strong>2,947</strong></td>
<td><strong>76%</strong></td>
</tr>
</tbody>
</table>

1. Morning parking demand is an average of Wednesday and Thursday data collected by CWU Parking Services September 2016 at 10:00 a.m.
2. Afternoon parking demand is an average of Wednesday and Thursday data collected by CWU Parking Services September 2016 at 2:00 p.m.
3. Total supply counted by CWU Parking Service staff for the lots which data was collected in September 2016. Not all parking lots had data collected.

### Table 5: Existing On-Campus Parking Utilization by Parking Zone.

<table>
<thead>
<tr>
<th>CAMPUS ZONE</th>
<th>TOTAL SUPPLY</th>
<th>MORNING¹</th>
<th>AFTERNOON²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEMAND</td>
<td>UTILIZATION</td>
<td>DEMAND</td>
</tr>
<tr>
<td>1 B St to Chestnut St, south of E 11th Ave</td>
<td>346</td>
<td>288</td>
<td>83%</td>
</tr>
<tr>
<td>2 Chestnut St to Alder St, south of E 11th Ave</td>
<td>895</td>
<td>825</td>
<td>92%</td>
</tr>
<tr>
<td>3 B St to Chestnut St, between E 11th Ave and E 14th Ave</td>
<td>437</td>
<td>345</td>
<td>79%</td>
</tr>
<tr>
<td>4 Chestnut St to Alder St, between E 11th Ave and E 14th Ave</td>
<td>525</td>
<td>395</td>
<td>75%</td>
</tr>
<tr>
<td>5 D St to Chestnut St, north of E 14th St</td>
<td>817</td>
<td>462</td>
<td>57%</td>
</tr>
<tr>
<td>6 Chestnut St to Alder St, north of E 14th St</td>
<td>793</td>
<td>631</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,813</strong></td>
<td><strong>2,946</strong></td>
<td><strong>77%</strong></td>
</tr>
</tbody>
</table>

1. Morning parking demand is an average of Wednesday and Thursday data collected by CWU Parking Services September 2016 at 10:00 a.m.
2. Afternoon parking demand is an average of Wednesday and Thursday data collected by CWU Parking Services September 2016 at 2:00 p.m.
3. Total supply counted by CWU Parking Service staff for the lots which data was collected in September 2016. Not all parking lots had data collected.

Note: Building X-24 is outside of the study zone area.
Figure 2: 10 AM Campus Parking Utilization

Legend
10 AM Utilization
- 1% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
Figure 3: 2 PM Campus Parking Utilization

Legend
2 PM Utilization
- 1% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
Figure 2: AM Campus Parking by Zone

Zone 1
Parking Supply = 346
Occupied = 288
Utilization = 83%

Zone 2
Parking Supply = 895
Occupied = 825
Utilization = 92%

Zone 3
Parking Supply = 437
Occupied = 345
Utilization = 79%

Zone 4
Parking Supply = 525
Occupied = 395
Utilization = 75%

Zone 5
Parking Supply = 817
Occupied = 462
Utilization = 57%

Zone 6
Parking Supply = 793
Occupied = 631
Utilization = 80%

Legend
10AM Utilization
- Less than 80%
- 80 - 90%
- More than 90%
The SOUTHERN PART of campus had a HIGHER PARKING DEMAND than the northern part. Many of the lots on the southern part of campus were observed full or nearly full.

SUMMARY OF EXISTING CONDITIONS
The following infographics summarize the existing parking conditions at the CWU campus in Ellensburg.

OVERALL PARKING DEMAND on a typical weekday is highest in the morning

76% of parking lots are filled in the morning
62% of parking lots are filled in the afternoon

Most heavily utilized lots during the day

Faculty and Staff + Student Village
APZ lots

Approximately 5,021 parking permits were sold to commuting students and staff during the 2016/17 school year.

4,456 parking stalls on campus for residents, commuting students, and faculty and staff.

4,456 parking stalls on campus for residents, commuting students, and faculty and staff.
CONCERNS, UPDATES, AND RECOMMENDATIONS

Existing Concerns
Based on the evaluation of the existing conditions in the 2015-2016 academic year, there is ample parking on campus as a whole to serve the existing users; however, there are conditions that can be improved upon. Some of the exiting concerns that can be immediately improved include:

» Highly desired spaces near Student Union Building are often occupied by long term on-campus student parkers.
» The lack of available convenient parking in south areas for administrative buildings.
» There is a lack of clear wayfinding to identify available parking for students, staff, and visitors.
» Residential parking permits are managed by the housing group independent from the Parking Services group and a central data base for permits doesn’t exist.
» Limited parking available in close proximity to the core of campus.

Recent Updates
Managing parking will be a critical component of the overall success of the University. The following list identifies parking recommendations that have been implemented in recent years.

» Convenient/preferred parking in I-15 and H-15 were converted from 24 hour parking to non-overnight parking. This restricted campus residents from parking vehicles for extended periods of time in the parking spaces that are most convenient and preferred by all. Based on overnight counts, there is ample 24-hour and overnight parking in lots G-16, H-18, I-19, and N19/N20 to accommodate the change.

» Short term time-limited parking in lots I-15 were provided for short term administrative visits. This provided some short term parking in close proximity to the Student Recreation Center and administrative buildings to make it easier to do business with CWU.

» Eliminated X12 as a Discount Lot. The discount parking lot program is not utilized so convert the X12 parking lot to a general campus designation.

» Improved wayfinding and signage program for students, staff, and visitors. Improving the wayfinding and signage program will better link drivers to available parking, reduce driver confusion, enhance the visitor experience, minimize vehicles circulating for parking, and better brand CWU as a premier University.

» Move responsibility of residential parking permits to Parking Services. In order to properly understand, manage, and address parking campus wide, the Parking Services division should be the central point for all parking related to CWU. This will allow monitoring of the number of permits issued, if students are obtaining both “free” residential permits as well as buying a general campus permit, and be able to better monitor and address future parking needs.

Further Recommendations
The following recommendations could be implemented to improve operations of the parking program.

1. Establish a monitoring program. Monitoring of the parking demands and utilization of various lots should be monitored regularly or after an event effecting parking occurs to be able to address and manage parking needs over time.

2. Enhance connectivity between core the parking areas to promote safe and efficient mobility for pedestrians.
Parking management strategies support a more walkable community reducing the dependence of the automobile, improve traffic operations, and lessen the impacts to the environment. This section provides a menu of strategies for future consideration.

The parking management strategies identified in this report are summarized in three primary categories and include everything from infrastructure to policy changes.

» **Improving Efficiency.** These are strategies that are aimed at maximizing the use and efficiency of parking supply.

» **Reducing Demand.** These are strategies that are aimed at reducing parking demands through shifting travel modes and/or changing behaviors during peak demand periods.

» **Awareness, Enforcement, and Authority.** These are strategies related to making the public aware of the parking regulations and locations, enforcing regulations and policies, and monitoring parking conditions to continually make improvements and ensure strategies are appropriate as conditions change.
IMPROVING EFFICIENCY

Efficiency includes concepts such as shared parking, regulating parking, providing satellite parking, improving connections, and reconfiguring parking. These concepts and strategies are used to maximize the use of the current and future parking supply to avoid oversupply.

Shared Parking

Shared parking is where parking facilities serve multiple uses and are not dedicated for any one specific use. Shared parking reduces the amount of parking needed as different uses have demands that peak at different times. For example, office uses peak during the day while residential uses peak in the evening. In addition, with shared parking, in a mixed-use urban environment visitors can park once and walk to multiple nearby destinations reducing the need to move their vehicle for each destination.

Many local and regional jurisdictions encourage shared parking and either allow a flat percent reduction or allow a demand study to be completed by a transportation consultant to identify the shared parking reductions.

Some parking lots on campus are dedicated for a specific use such as staff only lots, while other general 24 hour lots allow any users.

Regulate Parking

Parking regulations can control who, when, and how long vehicles are allowed to park. This helps prioritize parking and allows the most convenient parking spaces to be available for the most important uses. Regulating parking includes implementing time restrictions; designating areas for employees; providing residential permit parking; and dedicating carpool, loading zone, car sharing, and electric vehicle spaces.

In addition to regulating parking duration, there is a recent movement to regulate vehicle type by providing dedicated spaces for carpools and electric vehicles. Regulating vehicle type supports the goal of reducing traffic and environmental impacts. With electric vehicle parking spaces, consideration should be given to installing charging stations.

SHARED PARKING

Benefits

» More efficient use of parking
» Less overall parking needs
» Reduces auto use
» Improves environment (less vehicle use, less impervious service, etc.)
» Supports walkable community goals

Challenges

» Convenient parking locations would go to first come first serve vs being reserved for specific uses
» Staff and or campus operations may need access to specific areas

REGULATE PARKING

Benefits

» More efficient use of parking
» Increase parking turnover
» Make preferred parking available for customers
» Can shift residential and other long-term parking to underutilized areas
» Incentivizes carpooling or electric vehicles

Challenges

» Enforcement can be difficult (i.e., more frequent enforcement needed with time restrictions to chalk vehicles and without license plate recognition drivers remove chalk.
» Signage/Notification to make users understand restrictions
» Balancing priority areas can be contentious among land owners/tenants
Satellite Parking

Satellite parking or remote parking lots are often located at the periphery of the campus to accommodate the needs for automobiles separating traffic, noise, and other impacts associated with having automobiles in the campus core. Depending on how remote the parking is located, shuttles, trolleys, or other transit modes are often utilized to transport people between parking and the ultimate destination. This is a very effective approach for dealing with parking in areas where there are seasonal fluctuations, special events, or where the cost or presence of parked vehicles in the urban core is not desired.

Communities such as Aspen, Colorado provide satellite parking served by transit to preserve the walkable mountain village character and avoid the impacts associated with additional cars during peak resort seasons. On a different scale, large retail shopping centers such as Bellevue Square and Northgate Mall in Seattle utilize remote parking for employees during holiday seasons with a free shuttle service to open up more parking for customers during peak shopping seasons. As CWU further develops, this strategy could be explored.

SATELLITE PARKING

Benefits

» More efficient use of parking
» Parking can be less expensive on periphery
» Reduces traffic circulation and environmental impacts in Campus core
» Encourages carpooling and ride sharing
» Simple to implement for special events

Challenges

» Requires quality connections to transit or close pedestrian connections
» Needs to be less expensive or more efficient to the user than other options to work
» Need to provide security for lot
» Requires signage, wayfinding, and education
» Costs associated with drainage, landscaping, insurance, maintenance, and other aspects can be expensive.
Improved Non-Motorized Connections

Walking and cycling are considered non-motorized modes that play a very important part in the overall multimodal transportation system. Improving connections between parking and multiple destinations expands the area served by parking. This supports having people park once and visit multiple destinations. The safer and more comfortable the walking environment, the further people are willing to walk.

This could include providing more direct connections, wider and more comfortable connections, covered or sheltered walking routes, connections through buildings, improved illumination/lighting, landscaping, and improvements to safety.

Reconfigure Parking

The existing facilities could be optimized to provide more parking in existing areas. This could include restriping lots, reducing parking space sizes (i.e., compact and motorcycle parking), minimizing curb cuts, reevaluating street widths/cross-sections, and utilizing undeveloped or wasted areas for parking.

This has already occurred through some areas of campus with the introduction of motorcycle specific stalls and future plans to reconfigure parking lots in the southeast portion of campus.

IMPROVED NON-MOTORIZED CONNECTIONS

Benefits
» Expands range of parking facilities
» People are more likely to park once and walk to multiple destinations
» Supports transit use if connections are convenient to and from transit
» Provides social, health, and environmental benefits
» Less costly than providing additional parking

Challenges
» Funding non-motorized connections and facilities are at times not prioritized over other operational needs.
» Costs associated with drainage, landscaping, insurance, maintenance, and other aspects can be expensive.

RECONFIGURE PARKING

Benefits
» Increases parking supply
» Smaller spaces equates to less pervious surface

Challenges
» Improvements usually require additional costs associated with drainage, landscaping, and pedestrian facilities
REDUCING DEMAND

This includes strategies to decrease the demand for parking such as transportation demand management (TDM), car sharing, charging for parking, incentivizing, unbundle parking, and improving non-motorized facilities.

Transportation Demand Management

There are a number of strategies for implementing transportation demand management (TDM), which are focused on reducing automobile use and getting drivers to make alternative mode choices. These measures balance the use of the transportation system by shifting travel modes, travel times, and how the system is used.

Washington State has a Commute Trip Reduction (CTR) Law that is designed to get employers with more than 100 employees to implement programs to reduce the number of drive alone trips, thereby reducing traffic, parking, and environmental impacts. CTR is required for larger employers, but the same programs can benefit smaller companies or a group of employers.

Car Sharing

Car sharing is a viable option in an area where people live, work and play. This is a service that is intended to reduce vehicle ownership by making a community car available to rent on an hourly basis. This allows people that live and work in an urban village, and do not need a vehicle for every day, use vehicular mobility when it is needed. It is also a cost saving option for people that do not need a car every day or want the burden of the expense of their own vehicle.

Zipcar, a car sharing provider, is available on the CWU campus at the Student Union and Recreation Center. Vehicles can be reserved by the hour or for a full day.
Charge for Parking

Charging for parking is simply having people directly pay for the use of parking spaces. This can be implemented for both public and private lots and essentially is a management tactic that reduces demand, motivates ride sharing, promotes higher turnover, and can generate revenue. In recent years, there have been numerous studies that show positive support for paid parking in urban settings with a high demand for parking.

There has also been a paradigm shift of thinking with regards to the cost of parking. This has been most publicly written about by Donald Shoup where in many publications he has stressed that free parking is actually subsidized parking and the costs are indirectly passed on to customers and the public. Parking is paid for either directly or indirectly and when you charge for parking the user is paying. In addition, cities such as Seattle and San Francisco have implanted a “dynamic parking” program which charges parking prices based on the amount of demand.

Methods for charging for parking have evolved and improved over time as technology has changed. Technology in meters has significantly improved payment methods and the “paid parking” experience has become more convenient.

Paid parking is currently utilized on Campus but the price and how on-campus residents are charged may need to be evaluated further.

Incentivize

Financial incentives are often used to reduce employee drive-alone commute trips and parking demand. Incentives could be in the form of cash payouts, transit pass subsidies, or discounted/preferred parking for carpooling.

CHARGE FOR PARKING

Benefits
» Very effective at reducing demand
» Encourages mode shifts
» Less expensive to enforce than signed time restricted areas
» Generates revenue

Challenges
» Political difficulties
» Requires a thoughtful transition
» Costs to install infrastructure

INCENTIVIZE

Benefits
» Reduces parking and traffic impacts
» Encourages mode shifts

Challenges
» Management of a program
» Getting policies or agreements in place
Unbundled Parking

Residential parking spaces are often bundled into a rental/lease agreement and the costs of the parking are wrapped in the rent but advertised as free. If you unbundles these parking spaces and charge for them separately from rent, you can provide lower rents and the option for tenants to pay for the additional cost of parking. This makes the tenant more aware of their purchase and gives them the choice to pay for what they need and ultimately can result in overall lower parking demand. Unbundled parking can be especially effective in dense areas with multiple destinations, as users may choose to opt in to alternative modes such as transit.

This could also be portrayed as a discount given to those that don’t require a parking permit.

Improve Non-Motorized Facilities

Walking, cycling, and transit play a very important role in the overall multimodal transportation system by providing alternatives to the automobile. Improving non-motorized facilities such as connections, bike racks, and transit stations all encourage the use of alternative modes and make better use of the entire transportation system.

UNBUNDLED PARKING

Benefits
» Reduces parking demand
» Encourages mode shifts

Challenges
» Requires public policy to encourage/support unbundled parking

IMPROVE NON-MOTORIZED FACILITIES

Benefits
» Reduces parking demand
» Increases non-motorized use
» Provides social, health, and environmental benefits
» Less costly than providing additional parking

Challenges
» Funding non-motorized connections and facilities are at times not prioritized over other operational needs.
» Costs associated with drainage, landscaping and other aspects can be expensive
AWARENESS AND ENFORCEMENT

In order to make parking strategies effective, CWU will need to provide public information and outreach, enforcement so that regulations are not ignored, and monitoring to adjust and adapt to future conditions.

Wayfinding and Information

Wayfinding is used to link drivers to available parking. It decreases traffic congestion and increases efficiency in finding a parking space by directing drivers to available parking and avoiding added traffic from people circulating through the system to locate spaces. With drivers guided on a direct path to available parking the more traffic and environmental impacts will be reduced and the overall transportation system will function more efficiently.

In addition to wayfinding signs along roadways, other information and educational media such as websites and tourist maps can be used to direct drivers to available parking.

Enforcement

Enforcing parking regulations is an important component to making sure the parking system and regulations are followed. Without enforcement many parking management strategies will be ignored, abused, and ineffective. Developing a parking enforcement plan needs to be a part of any parking management program and should be reviewed and updated to meet the changing needs of the system as well as available technologies. Each parking management strategy requires a different form or level of enforcement that needs to be considered in the overall cost-benefit. Typically, enforcement costs are offset by revenues generated from ticketing violators.

New technologies are helping cities like Kirkland monitor and enforce time-restricted parking areas. Most jurisdictions utilize a parking attendant to walk or drive various routes and chalk tires on a regular interval. Kirkland has installed license plate recognition devices on their parking enforcement vehicles, which allows them to quickly drive down a street and have a software program automatically identify violators.

WAYFINDING AND INFORMATION

Benefits

» Reduces traffic impacts and additional vehicle circulation

Challenges

» Currently, no one specific parking location to direct visitors, students, and staff.

ENFORCEMENT

Benefits

» Ensures that parking management is effective
» Generates revenue to help fund further parking improvements

Challenges

» Enforcement requires staff and additional costs
This section describes some of the future considerations for managing the parking system, which will need to evolve over time as the University grows and priorities change. The ultimate goal will be to make sure parking is managed to meet the goals and objectives of the University.

General recommendations have been identified to provide a solid foundation for managing and developing the University’s parking system. The specific strategies could change as the University determines how to balance between developing more parking and/or aggressively managing and restricting the use of the existing parking. It should be noted that the management of parking should be considered as part of the entire multimodal transportation system, which is dynamic. Changes, impacts, and decisions related to the pedestrian and bike realm, transit service and operations, traffic congestion, social behavior, and economic factors could significantly influence and effect how future parking management decision are made. As significant changes occur with any part of the transportation system, parking management strategies will likely need to evolve and be adapted.
10-YEAR CAPITAL PLAN (SCIENCE NEIGHBORHOOD DEVELOPMENT)

The University has identified a 10-Year Capital Plan that will include the development of new buildings and renovation of other buildings in the central campus area. These buildings will be used to expand and update the academic learning centers on campus. The 10-Year Plan primarily includes construction of the Science Neighborhood and Nutrition and Exercise Science buildings, and renovation and reopening of the Samuelson Union Building.

With the development of the Science II Building and the Nutrition, Exercise, and Health Science Building, the J-8 (102 spaces) and H-6 (21 spaces) parking lots were removed and developed. Assuming no growth in demand, the loss of 123 spaces would increase the overall campus parking utilization from 75 percent to 81 percent. This would indicate that in general the loss of the stalls could be accounted for without developing more parking; however, these lots are located in the most preferred parking areas closest to the central part of campus. In addition, the J-8 and H-6 lots are designated as General Campus (Non-Overnight) parking lots and there is not enough existing capacity in the remaining General Campus (Non-Overnight) parking lots to account for vehicles that would be displaced.

Impact

» Loss of 123 space in preferred parking areas
» Overall supply can accommodate loss but utilization increases from 75-81 percent and would require patrons to park further from the core of campus
» There would be a shortage of parking dedicated to General Campus (Non-Overnight) uses

Recommendation

The following strategies are recommended to accommodate future forecasted demands after construction of the current 10-Year Capital projects.

» Manage existing supply through reclassifying preferred parking lots to provide more General Campus (non-overnight) parking in areas near the Science Neighborhood and shift 24 hour on-campus users to underutilized areas to north and east. Parking on the north side of campus could be further incentivized and transportation demand management, campus shuttles, and increased non-motorized connectivity to the City could be utilized to lower on-campus parking demand.
Develop additional parking areas to replace lost parking and serve the new Sciences Neighborhood. With the development of the Science 2 building and the loss of the J-8 parking lot, one or more of the following parking areas could be further developed to provide additional parking:

- Develop the southern portion of the grass lawn west of the Science Building as a new parking lot. This could include a drop off area as well. This provides the most proximate replacement for the loss of parking in J-8 and the existing drop off area on the west part of campus. Access would be the same as the existing parking lots and served well via the 11th Avenue alignment. This would require removing existing trees.

- Expand the P-8 parking lot in front of the library to the north and south to provide a center parking aisle and approximately double the capacity. This requires redesigning the parking lot and removing/relocating sidewalk, illumination, and possibly some trees. This location has good vehicular access and would also serve well for event parking.

- Expand the D-5 parking lot east in the vacant parcels at the northwest corner of the University Way / D Street intersection. This provides additional parking in the southwest portion of campus where most patrons to the campus arrive and where parking is relatively scarce. In the long term there may be more desirable uses for this land given the location at two busier streets near the entrance to the University.

- Develop parking on the vacant parcel between H-18 and I-19. This vacant land provides an opportunity to provide additional parking and better connect circulation through the large p

- Parking areas in the southeast portion of campus. Long term plans would include relocating the creek and reconfiguring the parking lot to increase supply, improve efficiencies, and provide better circulation.

- Expand the S-10 parking lot to the west and south where there is open space. This is further away but could support the core of campus as well as future development of the north campus as well as event and sporting activities that occur in the northern portion of campus.

- Purchase additional property adjacent or near campus to accommodate the development of new parking lots. Considerations for cost, location, and how well the site is connected to the campus would need to be evaluated.

- Develop new North Bouillon parking lot to increase parking East of Bouillon.

- Increase fines for parking violations.
REMOVAL OF ON-STREET PARKING ALONG ALDER

The City of Ellensburg is considering enhancing the bicycle network through the addition of dedicated bike lanes on Alder Street along the east end of campus. The preferred plan for adding bike lanes is to utilize the existing right of way and pavement by converting the paved areas where on-street parking is provided to dedicated bike lanes. These parking areas are currently utilized by visitors/students of CWU as well as local residence. If and when on-street parking spaces are removed additional parking on campus will likely need to occur to accommodate some of the displaced demands. In addition, impacts to other neighboring on-street parking areas may need to be addressed through a residential parking zone (RPZ) or other management technics the City could implement.

Impact

» Loss of approximately 200 public spaces used by CWU and others

Recommendations

» Coordinate with the City of Ellensburg and evaluate the utilization of existing spaces

» Develop surface parking on campus to accommodate some of the displaced demand

» Have City evaluate the potential impacts to other on-street parking areas and consider management strategies such as a residential parking zone (RPZ)

Some of the future potential parking management strategies are identified in Table 6 but will be reviewed and refined as the Master Planning process evolves. The strategies are intended to be implemented in phases and correspond with general triggers that are likely to occur in the near future. Strategies in Phases 2-4 would be triggered by growth and the potential loss of existing parking areas.

LONG-TERM CAMPUS DEVELOPMENT PLAN

Through the Master Planning process, the University has a long-term development plan that continues to add academic, residential, and event buildings to the campus and can be used as a guide for future development as well as an evaluation of the overall developable capacity of the Central Washington University campus.

After the implementation of the 10-year plan, the long-term campus development includes infilling existing, unused areas and redeveloping other areas to more efficiently use University campus space by increasing building density. The long-term master plan identifies development of up to approximately 1.23 million square feet in 11 additional academic buildings, 460,000 square feet in 8 additional housing buildings, and approximately 210,000 square feet in 4 additional non-academic buildings. Many of these buildings are likely to developed where existing parking lots exist. The current plan includes the loss of C-9, P-8, H-15, I-15, G-15, G-16, H-18, I-18, I-19, N-19, and N-20. This equates to the loss of approximately 1,200 parking stalls.
Replacing parking stalls would need to occur through reconfiguring existing lots, developing new surface lots and potentially considering the development of parking garages. Parking garages would be considered when there is a lack of parking in close proximity to the campus core, the value of land increases, and parking fees/revenues are high enough to help fund their development. Ideally parking garages would be located in the most high demand areas where they would be most utilized, where fees are higher, and are easily accessible for vehicular access. This would likely be on the south or west portions of campus.

The Central Washington Master Plan identifies the potential for increasing the population growth from approximately 8,400 students to approximately 9,000 students. The existing student to parking supply ratio is 0.42 spaces per student and to accommodate the same ratio of parking stalls to the existing condition would require the development of approximately 250 spaces. This will continue to allow some excess parking to the outer areas to accommodate events and other special conditions when additional parking is needed. When utilizing data from the Institute of Transportation Engineers Parking Generation, studies of typical Colleges and Universities show that a demand of 0.38 spaces per student is typical. For planning purposes we have identified three parking demand rates (0.40, 0.35, and 0.30 spaces per student) to correlate with different levels of parking demand management strategies. These are generally described following.

**Minimal Parking Demand Management.** Maintain status quo and provide parking for residence at no additional cost, have minor increases in parking fees over time, continue to enforce illegal parking, but parking demand would continue to proportionately grow with student and staff growth. This would equate to higher rate of 0.40 spaces per student.

**Moderate Parking Demand Management.** More aggressively manage parking demand and implement additional parking management strategies that are discussed in this report to obtain a 5-15 percent shift away from vehicle demands. This could be accomplished through a number of different practices including more aggressive demand managed pricing, not allowing free parking for residences by unbundling the parking fees, provide rideshare programs and encourage carpooling, introducing transit and shuttle services to key destinations, and improve pedestrian and bicycle networks to encourage more walking and cycling. This would equate to a rate of 0.35 spaces per student.
Aggressive Parking Demand Management.
Lower parking ratios are possible with the introduction of additional alternative modes of travel such as access to a robust transit system, extensive non-motorized system providing walking and biking opportunities through the University and within the City Ellensburg, and having aggressively high parking rates to obtain a 15-25 percent reduction in vehicle demands. This would equate to the lower parking demand rate of 0.30 spaces per student.

Assuming a demand of between 0.30 and 0.40 spaces per student, an increase of 600 additional students would likely increase the overall parking demand between 180 and 250 spaces depending on where parking is provided and how it is managed.

Impact
» Increased parking demand of between 180 and 250 vehicles with student growth
» Loss of existing parking through developing buildings where parking lots exist

Recommendations
» Increase parking supply through developing new parking lots. This could consider remote parking lots with shuttle service or development of parking garages
» Improve efficiency and reduce demands through more aggressive management strategies that would shift modes away from vehicular use
» Improve walking and cycling systems through better connectivity, security, and overall design to enhance non-motorized modes of travel
» Conduct monitoring studies to make sure demand and supply are adequately balanced
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<tr>
<th>GOAL</th>
<th>PHASE 1</th>
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<tbody>
<tr>
<td>Balance Utilization</td>
<td>Shift Demand to North Campus</td>
<td>Accommodate loss of Alder Street Parking</td>
<td>Accommodate Development in the Master Plan and Student Growth</td>
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<td>TRIGGER</td>
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<td>Science Neighborhood Development</td>
<td>Bicycle Lanes on Alder Street</td>
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<td>STRATEGIES</td>
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<td>Convert convenient/ preferred parking in I-15 and G-16 from 24 hour parking to non-overnight parking</td>
<td>Rebalance 24 hour and non-overnight parking areas to account for loss of preferred non-overnight stalls</td>
<td>Coordinate with the City to identify on-street users</td>
<td>Replace lost parking and increase parking supply in surface lots and consider remote shuttle lots or parking garages</td>
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<td>Provide short term parking in south areas for administrative needs</td>
<td>Increase use of underutilized north lots through adjusting restrictions and classifications of various lots</td>
<td>Consider additional parking on campus</td>
<td>Improve efficiency and reduce demands through more aggressive management strategies that would shift modes away from vehicular use</td>
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<td>Develop a better wayfinding and signage program for students and visitors</td>
<td>Enhance pedestrian environment and connectivity to parking areas</td>
<td>Evaluate the use/need of a residential parking zone</td>
<td>Consider providing enhanced transit service</td>
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<td>Move responsibility of residential parking permits to Parking Services</td>
<td>Improve walking, biking, and transit facilities to encourage mode shifts and expand parking range</td>
<td>Improve walking and cycling systems through better connectivity, security, and overall design to enhance non-motorized modes of travel</td>
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<td>Establish a monitoring program</td>
<td>Improve parking information and possibly guide users to underutilized lots</td>
<td>Conduct monitoring studies to make sure demand and supply are adequately balanced</td>
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<td>Continue education and enforcement of parking regulations</td>
<td>Consider increasing fees for most desirable areas, which could include establishing a zoning system</td>
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<td>Add parking through either:</td>
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<td></td>
<td>» Expansion of P-8 lot</td>
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<td>» New lot west of existing Science Building</td>
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<td>» Expansion of D-8 parking lot</td>
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<td>» New lot between H-18 and I-19</td>
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