TRANSPORTATION AND PARKING INFRASTRUCTURE STUDY

10-Year Strategic Plan

VERSION 1.3
FEBRUARY 13, 2023
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LIST OF ACRONYMS

PbP    Pay by phone
SOV    Single Occupancy Vehicle
TDM    Transportation Demand Management
UDOT   Utah Department of Transportation
UTA    Utah Transit Authority
Create a vibrant campus community as we enhance mobility and connectivity to, from, and within our campus.

**Goals**

**Balanced**
Reliable and resilient, recognizing that active transportation, transit, and vehicles are each accommodated.

**Sustainable**
Actively embrace a transition to environmental and financial sustainability, reduce vehicle-miles traveled, and support carbon neutrality by 2040.

**Efficient**
Optimized through data-driven decisions that accommodate future growth.

**Convenient**
Fast, clean, and safe; easy to transfer from one mode to another.

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### Where Are We Now? Where Are We Going?

#### MOBILITY CHOICES

**NOW (2022)**
- Private Vehicle: 49%
- Active Transportation: 11%
- Campus Shuttle: 16%
- Shared Vehicle: 18%

**FUTURE (2033)**
- Private Vehicle: 37%
- Active Transportation: 14%
- Campus Shuttle: 20%
- Shared Vehicle: 23%

### CARBON NEUTRALITY

**Progress Towards Carbon Neutrality**

- **2022 Existing**: 263,249 kg/day
- **2033 Baseline / No Action**: 318,868 kg/day
- **2033 with Modal Shift Goals**: 276,774 kg/day

---

### STATISTICS

**Campus Population**

<table>
<thead>
<tr>
<th></th>
<th>NOW (2022)</th>
<th>FUTURE (2033)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>34,500</td>
<td>45,000</td>
</tr>
<tr>
<td>Main Campus Employees</td>
<td>13,364</td>
<td>16,597</td>
</tr>
<tr>
<td>Health Sciences Employees</td>
<td>17,456</td>
<td>21,680</td>
</tr>
<tr>
<td>Research Park</td>
<td>14,000</td>
<td>14,700</td>
</tr>
</tbody>
</table>

**Vehicle Parking Stalls / Stalls per Person Ratio**

<table>
<thead>
<tr>
<th></th>
<th>NOW (2022)</th>
<th>FUTURE (2033)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Campus**</td>
<td>12,092</td>
<td>13,792</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>7,934</td>
<td>7,934</td>
</tr>
<tr>
<td>Research Park</td>
<td>9,125</td>
<td>9,125</td>
</tr>
<tr>
<td>Bicycle Parking Spaces</td>
<td>3,694</td>
<td>6,000</td>
</tr>
</tbody>
</table>

---

*As compared to 2021 Annual Campus Travel Survey
**Also includes Fort Douglas, West Village, East Village, Red Butte Gardens, Natural History Museum, and Guardsman Lot
STRATEGIES TO ACHIEVE the Goals and Vision

Short-Term (<2 years)
- IN-3 On-Campus Mobility Hub: South Campus, 200 South
- IN-4 Active Transportation Funding
- IN-5 Campus Complete Streets Policy
- IN-6 Bicycle Parking
- PP-3 Increase Permit Prices (Progressive Pricing)
- PP-4 Increase Permit Prices (A-Permit)
- PP-5 Increase Permit Prices (Garage Parking)
- TDM-4 Car Share

Medium-Term (2-5 years)
- DDM-1 Integrated Mobility Management Platform
- DDM-2 Evaluation and Performance Monitoring
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-Modal Data Collection
- IN-1 Strategic New Parking Infrastructure
- IN-2 On-Campus Mobility Hub: Health Sciences
- OA-1 Establish TDM Implementation Committee
- OA-2 Centralized Bicycle Parking Operation and Management
- OA-3 Remote Work/Learning
- PA-1 Reduce Permit Flexibility
- PA-2 Expand Permit Parking Area
- PA-3 Establish Permit Limits (Freshman Parking)
- PA-4 Establish Permit Limits (Student Parking)
- PP-4 Increase Permit Prices (A-Permit)
- PP-5 Increase Permit Prices (Garage Parking)
- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communications
- TDM-3 Staff Onboarding and Student Orientation
- PA-5 Tiered Permits
- PP-6 Demand-Driven Pricing (Location Based)

Long-Term (6-10 years)
- DDM-1 Integrated Mobility Management Platform
- DDM-2 Evaluation and Performance Monitoring
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-Modal Data Collection
- IN-1 Strategic New Parking Infrastructure
- IN-2 On-Campus Mobility Hub: Health Sciences
- OA-1 Establish TDM Implementation Committee
- OA-2 Centralized Bicycle Parking Operation and Management
- OA-3 Remote Work/Learning
- PA-1 Reduce Permit Flexibility
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- PP-4 Increase Permit Prices (A-Permit)
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- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communications
- TDM-3 Staff Onboarding and Student Orientation
- PA-5 Tiered Permits
- PP-6 Demand-Driven Pricing (Location Based)

Recommendations include:
- TDM Investments to reduce the percentage of campus population that travels by single-occupant vehicle to, from, and around campus by 12% (from today’s 49%).
- New South Campus Parking Garage (1,000 to 1,500 spaces)
- New parking spaces near Shoreline Ridge (50 spaces)
- New parking spaces adjacent to new south campus residential facility (150 spaces)
- Reallocate spaces at Guardsman lot from Student Commuter to Student Residents (~100 stalls)
The University of Utah is preparing to undergo significant changes due to growth in enrollment and staffing; changes to the way students, faculty, and staff access campus; and major building capital changes on campus.

The University of Utah Strategy 2025 increases enrollment to 40,000 by 2025. By 2033, the campus population is anticipated to approach 100,000 people, as illustrated in Figure 1.

Figure 1. Campus Population, 2022 to 2033

Several new campus buildings will be constructed to accommodate the growth, and many of these will replace existing surface parking lots. The University of Utah recognizes that it cannot construct new parking to keep pace with new development. Utah Transit Authority (UTA) TRAX light rail, UTA fixed route bus, campus shuttle, SPIN scooters, walking, and bicycling are each foundational to providing convenient and efficient options to meet student mobility needs.

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**PLAN BACKGROUND AND CONTEXT**

The University of Utah is preparing to undergo significant changes due to growth in enrollment and staffing; changes to the way students, faculty, and staff access campus; and major building capital changes on campus.

The University of Utah Strategy 2025 increases enrollment to 40,000 by 2025. By 2033, the campus population is anticipated to approach 100,000 people, as illustrated in Figure 1.

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**PLAN PURPOSE**

University of Utah Planning, Design and Construction, in collaboration with Commuter Services and Health Sciences, prepared this University of Utah Transportation and Parking 10-Year Strategic Plan (Strategic Plan) to address needs of the changing campus environment.

The Strategic Plan begins with a review of the University of Utah’s parking and transportation infrastructure and services. The plan identifies opportunities to leverage existing resources, changing mobility behaviors, and emerging technologies to provide high-quality and innovative mobility options for the growing number of students, faculty, staff, and visitors to campus.

The University of Utah prepares periodic updates to its Campus Master Plan. The 2008 Master Plan is anticipated to be updated by 2025. The Strategic Plan identifies parking and transportation needs and opportunities in alignment with the current University of Utah capital plan in advance of this campus-wide master planning effort.
The Strategic Plan aligns transportation and parking infrastructure decisions with the Climate Change Action Plan, planned campus development, student recruitment, and campus vitality. The Strategic Plan is:

- A data-driven analysis of multimodal transportation and parking needs.
- A proactive effort to enable Commuter Services to continue serving students, faculty, staff, and visitors by providing mobility options.
- A strategy to align transportation decisions with anticipated University community growth.
- An action plan of recommended improvements and strategies to enhance campus mobility options and promote sustainable decisions.

**STRATEGIC PLAN OUTLINE**

The Strategic Plan is organized into the following sections:

- Plan Background and Context
- Vision, Goals, and Objectives
- Data Gathering
- Defining the Future
- Recommendations

**PLAN PROCESS**

The Strategic Plan was prepared following the steps as illustrated in **Figure 2**.

**PROJECT MANAGEMENT TEAM**

Preparation of the Strategic Plan was directed by the Project Management Team (PMT), a diverse group of individuals with representatives from Planning, Design and Construction; University Health, Auxiliary Services, Commuter Services, and Student Affairs. The PMT met bi-weekly throughout the plan development to discuss study findings, future scenario analysis, and action plan strategies.
TECHNICAL ADVISORY COMMITTEE

Preparation of the Strategic Plan was also informed by a Technical Advisory Committee (TAC), which consisted of the PMT in addition to representatives from Sustainability Office and Research Park. The TAC met at key project milestones to provide input on study findings, future scenario analysis, and action plan strategies.

CAMPUS OVERVIEW

The University of Utah is the oldest university in the state, established in 1850 shortly after settlement of the Salt Lake Valley. The campus, located on the east bench, close to the Wasatch Range, is approximately two miles east of downtown Salt Lake City, Utah. The campus (Figure 3) encompasses 1,534 acres including Main Campus, Health Sciences complex, and Research Park.

Most student instruction takes place on the west side of campus, known as main campus. Main campus is home to the Marriott Library, Law School, and the University Student Union. Main campus is also home to large sporting and event venues including Rice-Eccles Stadium, Huntsman Center, Utah Museum of Fine Arts, and performing arts venues including Kingsbury Hall and Pioneer Memorial Theatre. For the purposes of this Strategic Plan, Main Campus also includes the university residence halls and apartments located southeast of Health Sciences in Fort Douglas, as well as West Village and East Village graduate student housing located along Sunnyside Avenue.

Health Sciences is located at the northeast end of campus. The complex includes the University of Utah Medical Center, School of Medicine, Primary Children’s Medical Center, Huntsman Cancer Institute, and Moran Eye Center.

Research Park is located at the southeast end of campus and currently has 48 companies along with 81 university departments with a workforce of more than 14,000.

The University of Utah is accessible by vehicle, transit, bicycling, and walking. Major arterials such as 500 S and Foothill Drive run to the south and west of campus. UTA provides bus and light rail service. Campus shuttle, pedestrian walkways, and SPIN e-scooters and e-bikes provide mobility options within campus.

There are currently 3,694 bicycle and 27,772 vehicle parking spaces on campus for student, staff, employees, and visitors.
VISION, GOALS, AND OBJECTIVES
To achieve the University of Utah carbon neutrality goals by 2040, the campus population will need to reduce reliance on single occupancy vehicles (SOVs) and increase utilization of other modes including carpooling, UTA TRAX light rail and fixed-route bus service, campus shuttle, and micromobility (SPIN scooters, bike share). The Strategic Plan balances the needs of all modes of transportation. Strategic Plan objectives, illustrated in Table 1, will measure progress toward the Strategic Plan goals. The Strategic Plan proposes to increase the percentage of students and faculty commuting to campus by transit, walking, bicycling, or bus by 12% by 2033. While the student and faculty population will grow, the number of parking spaces per person on main campus will decrease. Bicycle parking is proposed to increase by more than 1,600 spaces with an emphasis on secure storage.

Table 1. Progress Towards Carbon Neutrality

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂ Emissions, kg/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022 Existing</td>
<td>263,249</td>
</tr>
<tr>
<td>2033 Baseline / No Action</td>
<td>318,868</td>
</tr>
<tr>
<td>2033 with Modal Shift Goals</td>
<td>276,774</td>
</tr>
</tbody>
</table>

See Appendix C for calculations.
### Table 1. Transportation and Parking 10-Year Strategic Plan Objectives

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DESCRIPTION AND PERFORMANCE TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MULTIMODAL NETWORKS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reduce number of trips to, from, and within campus made by single SOV</strong>:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2022</td>
</tr>
<tr>
<td>SOV Mode Share (%)</td>
<td></td>
</tr>
<tr>
<td>Student Commuters</td>
<td>36%</td>
</tr>
<tr>
<td>Student Residents</td>
<td>36%</td>
</tr>
<tr>
<td>Faculty/Staff</td>
<td>59%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>86%</td>
</tr>
<tr>
<td>Research Park</td>
<td>90%</td>
</tr>
<tr>
<td><strong>Increase number of trips to, from, and within campus made by sustainable transposition options</strong>:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2022</td>
</tr>
<tr>
<td>Non-SOV Mode Share (%)</td>
<td></td>
</tr>
<tr>
<td>Total Non-SOV Mode Split</td>
<td>51%</td>
</tr>
<tr>
<td>Transit</td>
<td>16%</td>
</tr>
<tr>
<td>Active Transportation</td>
<td>11%</td>
</tr>
<tr>
<td>Telecommute</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Increase availability and utilization of secure bicycle parking and storage.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2022</td>
</tr>
<tr>
<td>Spaces</td>
<td>Ratio</td>
</tr>
<tr>
<td>Exterior Bicycle Parking</td>
<td>2,502</td>
</tr>
<tr>
<td>Interior Bicycle Parking</td>
<td>1,192</td>
</tr>
<tr>
<td>Total Bicycle Parking</td>
<td>3,694</td>
</tr>
<tr>
<td><strong>VEHICLE PARKING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Optimize parking demands between core and fringe facilities with target occupancies of 75% to 90% occupied.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2022</td>
</tr>
<tr>
<td>Spaces</td>
<td>Ratio</td>
</tr>
<tr>
<td>Main Campus**</td>
<td>12,092</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>7,934</td>
</tr>
<tr>
<td>Research Park</td>
<td>9,125</td>
</tr>
</tbody>
</table>

*2021 Commuter Survey Report
**Also includes Fort Douglas, West Village, East Village, Red Butte Gardens, Natural History Museum, and Guardsman Lot

These performance targets will help meet the Strategic Plan’s goals of being balanced, efficient, sustainable, and convenient.
DATA GATHERING

The Strategic Plan began with gathering current conditions data to help understand the campus vehicle parking and multimodal transportation system and define immediate and longer-term needs. The evaluation of existing conditions informed development of strategies and actions to meet the mobility needs of students, faculty, staff, and visitors to the University of Utah campus.

Data and information were reviewed for the categories illustrated in Figure 5. Supplemental data for each category is available in Appendix A.

PREVIOUS PLANS AND STUDIES

Several previous plans and studies include recommendations, as summarized in Table 2, related to campus mobility, which set the stage and context for the Strategic Plan.

Table 2. Summary of Campus Planning Documents

<table>
<thead>
<tr>
<th>PREVIOUS PLAN OR STUDY</th>
<th>IMPACT ON STRATEGIC PLAN RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMPUS MASTER PLAN, 2008 (ADDENDUM, 2010)</td>
<td>Limit new parking structures on Main Campus</td>
</tr>
<tr>
<td>CLIMATE ACTION PLAN, 2010</td>
<td>Promote behavior change to influence use of sustainable transportation choices</td>
</tr>
<tr>
<td>UNIVERSITY OF UTAH BICYCLE MASTER PLAN, 2011</td>
<td>Improve bicycle infrastructure and connectivity</td>
</tr>
<tr>
<td>RESEARCH PARK TRANSPORTATION DEMAND MANAGEMENT PLAN, 2019</td>
<td>Implement Transportation Demand Management (TDM) initiatives: ride share system; guaranteed ride home;</td>
</tr>
<tr>
<td></td>
<td>transit pass program; bike share; park hub and bike station; wayfinding system; transportation</td>
</tr>
<tr>
<td></td>
<td>coordination; parking menu; and microtransit/shuttle</td>
</tr>
<tr>
<td>MOBILITY HUB STUDY, 2019</td>
<td>Construct Mobility Hubs: 200 South, South Campus Drive, Health Sciences</td>
</tr>
</tbody>
</table>
CAMPUS POPULATION

From 2016 to 2022, the student population grew from 31,900 to 34,500, and the faculty population grew from 27,500 to 30,800 in the same years. The University of Utah is planning for more than 45,000 students by 2033.

Source: The University of Utah Fast Facts (Academic years 2016/17 through 2021/22)

Source: The University of Utah Common Data Set (Academic years 2016/17 through 2021/22)
MOBILITY PATTERN DATA
The study team reviewed mobility pattern data provided by Replica. Replica gathers and processes multiple and disparate datasets into a holistic picture of mobility. Data components include anonymized cellular location, census demographic, and land use data. Replica data was obtained for this Strategic Plan with information about peak periods of travel, average distance by mode, average travel time by mode, and trip origin (zip code). Key insights from historical data for a typical weekday in March-May 2021 are described in Table 3.

Table 3. Mobility Pattern Data Insights

<table>
<thead>
<tr>
<th>TRAVEL PATTERN</th>
<th>EXTERNAL TRIPS FROM TO CAMPUS</th>
<th>INTERNAL TRIPS WITHIN CAMPUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAK PERIODS OF TRAVEL</td>
<td>Inbound: 7 am – 9 am, 14% of all trips Outbound: 4 pm – 6 pm: 31% of all trips</td>
<td>Highest between 12 pm and 6 pm, peaking at 5 pm</td>
</tr>
<tr>
<td>AVERAGE DISTANCE BY MODE</td>
<td>Alone in a vehicle: 14.7 miles Carpool: 18.6 miles Public Transit: 8 miles Bicycle: 3.6 miles Walking: 0.9 miles</td>
<td>Alone in a vehicle: 1.6 miles Carpool: 1.8 miles Public Transit: 2.1 miles Bicycle: 1.7 miles Walking: 0.6 miles</td>
</tr>
<tr>
<td>AVERAGE TRAVEL TIME BY MODE</td>
<td>Alone in a vehicle: 21 minutes Carpool: 25 minutes Public Transit: 43 minutes Bicycle: 21 minutes Walking: 16 minutes</td>
<td>Alone in a vehicle: 4 minutes Carpool: 4 minutes Public Transit: 21 minutes Bicycle: 10 minutes Walking: 10 minutes</td>
</tr>
<tr>
<td>TRIPS ORIGIN</td>
<td>58% of all trips originate from 15 zip codes in Salt Lake County and Davis County. 22% of all trips originate from zip codes 84101, 84102, 84105, and 84111. Each of these are within 2 miles from edge of campus.</td>
<td>Data not available since data is provided by zip code</td>
</tr>
</tbody>
</table>

KEY TAKEAWAYS
- The average bicycle trip to campus is 3.6 miles, average walk trip to campus is 0.9 miles, and average public transit trip is 8.6 miles.
- 22% of all trips to campus begin less than 2 miles away from campus - from zip codes 84101, 84102, 84105, and 84111.
- 70% of those traveling from these four zip codes do so by SOV.
VEHICLE PARKING

Parking facilities across the University of Utah campus are summarized in Table 4 and illustrated in Figure 9.

Figure 8 illustrates the timeline of major additions to campus parking infrastructure.

Table 4. Parking Facilities by Campus Area

<table>
<thead>
<tr>
<th>CAMPUS AREA</th>
<th>NUMBER OF FACILITIES</th>
<th>SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SURFACE LOTS</td>
<td>GARAGES</td>
</tr>
<tr>
<td>MAIN CAMPUS*</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>91</td>
<td>16</td>
</tr>
</tbody>
</table>

*Also includes Fort Douglas, West Village, East Village, Red Butte Gardens, Natural History Museum, and Guardsman Lot.

KEY TAKEAWAYS

- Parking challenges are proximity based rather than supply based. Many different user groups compete for the same spaces in the core of campus.
- Recent shifts in behaviors show that campus users (students and employees) desire flexible parking options including combinations of permits and daily/hourly parking options.
- Recent shifts in U-Permit and Temporary Permit purchases indicate that campus users are combining a number of options because of the relatively low costs.
- Underutilized garage parking spaces provide short-term options to offset immediate proximity challenges while leveraging desire for flexible parking options.

Figure 8. Timeline of Major Parking Additions
Figure 9. Parking Facility Map
PARKING SPACE TO CAMPUS POPULATION RATIO

Parking space to population ratio is a metric of effectiveness of a parking and transportation system. Ratios that approach 1.0 space per person reflect auto-oriented campuses. Lower ratios (less than 0.33 spaces per person) reflect effective transportation demand management, and effective utilization of transit and active transportation. Ratios at the University of Utah (Table 5) range from 0.25 (Main Campus) to 0.65 at Research Park.

Table 5. University of Utah Parking Space to Population Ratio

<table>
<thead>
<tr>
<th>CAMPUS AREA</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SPACES</td>
</tr>
<tr>
<td>MAIN CAMPUS</td>
<td>12,092</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>7,934</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>9,125</td>
</tr>
</tbody>
</table>

Figure 10 shows that the University of Utah parking space to population inventory ratio (Main Campus is in the middle range of those of other PAC-12 schools.

PERMIT SALES

Figure 11 shows permit sales for the most recent five years excluding temporary permits (A-Temp and U-Temp). Permit sales decreased through the COVID-19 pandemic (2020/21) but have since rebounded.

Figure 12 shows the percentage of permit sales to faculty, staff, and students. The data shows that 66% of all students purchased a permit, and 35% of all faculty purchased a permit. Student permit sales have increased from 43% to 66%, while faculty/staff has ranged from 31% to 37%.
VISITOR PARKING TRENDS

Visitors may pay for parking at kiosk machines, by Pay by Phone (PbP), using a coupon code, or by MobilePay. Figure 13 illustrates the amount of visitor parking base for different payment methods. Similar to student and employee permits, between 2015 and 2019, there was a steady increase in pay-as-you-go parking, which was also bolstered by students and faculty/staff who already had parking permits. Revenue dropped during the COVID-19 pandemic, but has shown a strong resurgence.
Visitor parking by location is summarized in Figure 14. Revenue for all visitor lots decreased, with a significant drop for Lot 6 (Marriot Library/Campus Bookstore) during the COVID-19 pandemic. All lots are showing signs of recovering, with Lot 25 (Student Life Center), Lot 64 (South Garage), and Lot 33 (Student Union) being near pre-pandemic levels.
As activity has returned to normal levels on campus post COVID-19, the number of parking permit holders using the kiosk (Table 6) and PnP systems (Table 7) has increased, as campus users look to gain more flexible parking. Most of this increase has been by student permit holders.

### Table 6. Kiosk Transactions by Employees and Students with a Parking Permit

<table>
<thead>
<tr>
<th>ACADEMIC YEAR</th>
<th>19/20</th>
<th>20/21</th>
<th>21/22</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSACTIONS BY EMPLOYEES WITH A PERMIT</td>
<td>33,674</td>
<td>11,763</td>
<td>33,159</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>TRANSACTIONS BY STUDENTS WITH A PERMIT</td>
<td>50,769</td>
<td>18,130</td>
<td>110,237</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>15%</td>
<td>15%</td>
<td>31%</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>25%</td>
<td>25%</td>
<td>41%</td>
</tr>
</tbody>
</table>

### Table 7. Pay by Phone Transactions by Employees and Students with a Parking Permit

<table>
<thead>
<tr>
<th>ACADEMIC YEAR</th>
<th>19/20</th>
<th>20/21</th>
<th>21/22</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSACTIONS BY EMPLOYEES WITH A PERMIT</td>
<td>12,472</td>
<td>5,393</td>
<td>12,145</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>12%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>TRANSACTIONS BY STUDENTS WITH A PERMIT</td>
<td>17,852</td>
<td>8,294</td>
<td>34,349</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>17%</td>
<td>16%</td>
<td>27%</td>
</tr>
<tr>
<td>% OF TOTAL TRANSACTION</td>
<td>29%</td>
<td>26%</td>
<td>37%</td>
</tr>
</tbody>
</table>

### PARKING UTILIZATION

The University of Utah monitors parking utilization for Main Campus and select Health Science parking facilities by conducting empty stall counts. Three to six weeks of data are collected in the Fall and Spring semesters and two weeks of data in the Summer semesters. Data collection is limited to a single timeframe during the day and does not provide information on parking turnover or how utilization varies throughout the day. Parking utilization was also obtained from the Health Sciences Patient Parking Study and Research Park Vision Study. Figure 15 shows the existing parking space occupancy. Occupancy by user type is available in Appendix A.

The data shows that parking for students and faculty/staff is the most constrained. Within the Visitor parking areas and Research Park, occupancies are close to 50% and parking is readily available. Lots that are consistently at or near maximum occupancy are listed at right.

Many of the lots that are consistently at or near maximum occupancy are at these levels due to their convenient locations. Several lots on Main Campus and Health Sciences are underutilized due to their location and not being accessible to other areas on campus. For example, Lot 39 (Merrill Engineering) and Lot 1 (West Stadium) are roughly the same size and located at the perimeter of campus. However, Lot 1 is consistently at or near maximum occupancy, while Lot 39 is not. Lot 1 is appealing due to its connection to the transit network via the TRAX station, four bus stops, and the bicycle network, which makes the rest of the campus more accessible. Within Research Park, many parking lots are underutilized where most are between 50% and 75% occupied. This is likely due to the use of suburban parking standards to design office parking needs, resulting in an over-supply of parking within this area of campus.

### PARKING LOTS CONSISTENTLY AT OR NEAR MAXIMUM OCCUPANCY

- Lot 1 - West Stadium
- Lot 20 - Huntsman South
- Lot 24 - HPER Sports
- Lot 26 - Soccer
- Lot 27 - Broadcast Center
- Lot 28 - Union East
- Lot 29 - Union North
- Lot 30 - Alumni
- Lot 46 - USTAR
- Lot 47 - East Wasatch
- Lot 52 - Hospital Loop
- Lot 66 - Hospital East
- Lot 69 - Chapel Glenn
- Lot 73 - Medical Towers
- Lot 74 - Shoreline
- Lot 77 - Officers Club
Figure 15. Existing Conditions Parking Occupancy
BICYCLE FACILITIES

Figure 16 shows designated bicycle routes on campus. Bicycle facilities are largely concentrated on Main Campus with limited facilities in Research Park. Existing bicycle repair facilities are also shown in Figure 16.

Bicycle parking throughout campus includes standard bike racks, covered bike racks, secure bike lockers, and secure bike rooms and cages. Not all bicycle parking spaces are available to all students, faculty, and staff; some locations require a rental fee.

A bi-annual bicycle utilization study counts every bicycle parking space and records the observed occupancy. Table 8 and Figure 17 highlights the latest data from September 2022. The majority of bicycle parking spaces are located at uncovered, outdoor bike racks with a total of 2,502 parking spaces of the total 3,694 bicycle parking spaces provided by the University of Utah. This level of parking represents a bike parking to campus population ratio of 0.047:

\[
\frac{3,694 \text{ bicycle parking spaces}}{79,320 \text{ campus population}} = 0.047 \text{ bicycle spaces per population}
\]

The data shows that external bike parking has higher occupancy rates compared to interior bike parking. The Health Science area has higher occupancy percentages compared to Main Campus and Research Park areas.

Table 8. Bicycle Parking Spaces by Type, September 2022

<table>
<thead>
<tr>
<th>BIKE PARKING FACILITY TYPE</th>
<th>MAIN CAMPUS</th>
<th>HEALTH SCIENCES</th>
<th>RESEARCH PARK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL PARKING SPACES</td>
<td>OCCUPIED SPACES (5-YEAR AVERAGE)</td>
<td>OBSERVED OCCUPANCY RATE (5-YEAR AVERAGE)</td>
</tr>
<tr>
<td>Exterior Bike Parking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike Rack</td>
<td>1,908</td>
<td>678</td>
<td>36%</td>
</tr>
<tr>
<td>Covered Bike Rack</td>
<td>189</td>
<td>49</td>
<td>26%</td>
</tr>
<tr>
<td>Exterior Subtotal</td>
<td>2,097</td>
<td>727</td>
<td>35%</td>
</tr>
<tr>
<td>Interior Bike Parking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure Bike Room</td>
<td>929</td>
<td>599</td>
<td>64%</td>
</tr>
<tr>
<td>Secure Bike Cage</td>
<td>93</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Secure Bike Locker</td>
<td>4</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Interior Subtotal</td>
<td>1,026</td>
<td>602</td>
<td>59%</td>
</tr>
<tr>
<td>Total</td>
<td>3,123</td>
<td>1,329</td>
<td>43%</td>
</tr>
</tbody>
</table>

NOTES: Main Campus includes Fort Douglas, West Village, East Village, Red Butte Gardens, Natural History Museum, and Guardsman Lot. Campus staff unable to assess utilization in bike lockers due to access restrictions.
PEDESTRIAN FACILITIES

The pedestrian network on the University of Utah campus is generally well connected as shown in Figure 18, with robust networks on Main Campus, Health Sciences, and Fort Douglas, though significant elevation changes can limit the distance that some individuals can reasonably be expected to walk. Research Park is the least connected with pedestrian facilities. Sidewalk gaps along high-volume roadways including North Campus Drive, Foothill Drive, Chipeta Way, and Wakara Way impact pedestrian connectivity across campus. Additionally, major roadways through and around campus require pedestrians to them or take circuitous routes to avoid potential conflicts with vehicles. The campus provides multiple grade-separated crossings for pedestrians and bicyclists including the George Eccles Legacy Bridge and at the Rio Tinto Kennecott Building.

PEDESTRIAN IMPROVEMENT RECOMMENDATIONS FROM PREVIOUS PLANS

SOUTH CAMPUS WALK

This project was identified in the 2008 Master Plan to transform the South Campus area into a mixed-use gateway including a safe pedestrian connection to the core campus area. South Campus Walk, as proposed by the 2008 Campus Master Plan, envisions a pedestrian pathway linking South Campus TRAX to the core campus. South Campus Walk should feature high-quality paving materials, lighting, seating, and shade trees which support a comfortable pedestrian environment day and night and during all seasons. This project concept was carried forward into the Mobility Hub study and will be incorporated into the South Campus Mobility Hub project.

UNDERGROUND TUNNEL AT FOOTHILL DRIVE CONNECTING RESEARCH PARK CAMPUS TO MAIN CAMPUS

This project is included as a long-term option in the 2017 Foothill Drive Implementation Strategy. This concept would construct a two-lane reversible underground tunnel connecting turn lanes on Mario Capecchi Drive and Wakara Way with Foothill Drive south of Sunnyside Avenue. This concept is carried forward into the Campus Mobility Hub Study. This tunnel concept would route turning traffic between Foothill and Research Park/the University underground, freeing space for the surface of Foothill Drive in this segment to prioritize pedestrians and cyclists. This concept may be incorporated into redevelopment plans for the Research Park Campus in partnership with Salt Lake City and Utah Department of Transportation (UDOT).
Figure 18. Existing Pedestrian Facilities
SPIN (SHARED E-SCOOTERS AND E-BIKES)

In April 2022, the University of Utah partnered with SPIN, a provider of a shared e-scooter and e-bikes, to bring their shared micromobility system to campus. The full system rollout kicked off in August 2022. SPIN e-scooters and bikes are located at locations throughout campus in designated parking areas. As shown in Figure 19, total daily rides starting on the University of Utah campus grew significantly once classes began in August 2022. The total number of on-campus trip starts regularly peaks on Saturdays, with the highest single-day trip starts occurring on August 27, 2022, with a total of 777 trip starts.

This mode has the potential to be increasingly utilized as faculty, staff, and visitors become accustomed to its widespread availability throughout campus.

Observations on SPIN device usage based on a SPIN Ridership report from April 25, 2022, to July 11, 2022 indicate:

- There are more SPIN e-scooters (93.5%) deployed on campus than SPIN e-bicycles (6.5%).
- The average SPIN trip using an e-scooter is slightly over one mile.
- Most SPIN trips (56%) are taken during the evening (after 4:00 PM).
- Saturday was the day of the week with the most trips (35%).

KEY TAKEAWAYS

- As micromobility expands on the University of Utah campus, it has the potential to serve as “last-mile” transportation from peripheral lots to the campus core.
- Currently, micromobility is most heavily utilized outside of peak periods of demand suggesting it’s use is primarily recreational.
- Enhanced low-stress pathway and bikeway connections between campus areas may facilitate more first/last mile trips between areas of campus.
The University of Utah partners with UTA to provide students, staff, and faculty access to UTA services through the UCard, which is valid on UTA bus, express bus, TRAX, FrontRunner, Streetcar, and UTA On Demand.

**TRANSIT NETWORK**

The campus is directly served by UTA with over 60 campus bus stops and four TRAX light rail stations (University Medical Center, Fort Douglas, University South Campus, and Stadium). The location of these stops and the transit routes are shown in Figure 20.

**RIDERSHIP**

October 2022 UTA ridership data shows that 63% of all transit trips to the University of Utah were made by light rail, as summarized in Table 9. Figure 21 shows the relative Stadium Station has the highest combined bus/rail boardings (25%), followed by University Medical Center (21%).

---

**Table 9. Ridership Summary (October 2022)**

<table>
<thead>
<tr>
<th>STOP LOCATION1</th>
<th>MODE</th>
<th># STOPS</th>
<th>AVERAGE DAILY BOARDING</th>
<th>AVERAGE DAILY ALIGHTING</th>
<th>TOTAL</th>
<th>% TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>STADIUM STATION</td>
<td>Bus</td>
<td>4</td>
<td>139</td>
<td>147</td>
<td>286</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Rail</td>
<td>2</td>
<td>2,682</td>
<td>1,004</td>
<td>3,686</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6</td>
<td>2,821</td>
<td>1,151</td>
<td>3,972</td>
<td>25%</td>
</tr>
<tr>
<td>UNIVERSITY MEDICAL CENTER STATION</td>
<td>Bus</td>
<td>2</td>
<td>293</td>
<td>250</td>
<td>543</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Rail</td>
<td>2</td>
<td>1,846</td>
<td>962</td>
<td>2,808</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
<td>2,139</td>
<td>1,212</td>
<td>3,351</td>
<td>21%</td>
</tr>
<tr>
<td>UNIVERSITY SOUTH CAMPUS STATION</td>
<td>Bus</td>
<td>2</td>
<td>113</td>
<td>87</td>
<td>200</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Rail</td>
<td>2</td>
<td>1,134</td>
<td>820</td>
<td>1,954</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
<td>1,247</td>
<td>907</td>
<td>2,154</td>
<td>13%</td>
</tr>
<tr>
<td>FORT DOUGLAS STATION</td>
<td>Rail</td>
<td>2</td>
<td>1,052</td>
<td>633</td>
<td>1,685</td>
<td>11%</td>
</tr>
<tr>
<td>KENNECOTT BUILDING</td>
<td>Bus</td>
<td>2</td>
<td>492</td>
<td>677</td>
<td>1,169</td>
<td>7%</td>
</tr>
<tr>
<td>UNION BUILDING</td>
<td>Bus</td>
<td>3</td>
<td>477</td>
<td>361</td>
<td>838</td>
<td>5%</td>
</tr>
<tr>
<td>UNIVERSITY HOSPITAL</td>
<td>Bus</td>
<td>1</td>
<td>231</td>
<td>292</td>
<td>523</td>
<td>3%</td>
</tr>
<tr>
<td>PRESIDENT’S CIRCLE</td>
<td>Bus</td>
<td>4</td>
<td>224</td>
<td>247</td>
<td>471</td>
<td>3%</td>
</tr>
<tr>
<td>SOCIAL WORK BUILDING</td>
<td>Bus</td>
<td>2</td>
<td>195</td>
<td>188</td>
<td>383</td>
<td>2%</td>
</tr>
<tr>
<td>FOOTHILL DRIVE</td>
<td>Bus</td>
<td>3</td>
<td>158</td>
<td>161</td>
<td>319</td>
<td>2%</td>
</tr>
<tr>
<td>MARIO CAPECCHI</td>
<td>Bus</td>
<td>4</td>
<td>64</td>
<td>252</td>
<td>316</td>
<td>2%</td>
</tr>
<tr>
<td>MISC. MAIN CAMPUS2</td>
<td>Bus</td>
<td>12</td>
<td>196</td>
<td>293</td>
<td>489</td>
<td>3%</td>
</tr>
<tr>
<td>MISC. RESEARCH PARK3</td>
<td>Bus</td>
<td>21</td>
<td>177</td>
<td>193</td>
<td>370</td>
<td>2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>Bus</td>
<td>60</td>
<td>2759</td>
<td>3148</td>
<td>5,907</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>Rail</td>
<td>8</td>
<td>6714</td>
<td>3419</td>
<td>10,133</td>
<td>63%</td>
</tr>
</tbody>
</table>

**TOTAL** 68 9,473 6,567 16,040 100%

---


Notes:
1 Stop locations represent group of individual stops that share stop name and located near each other. For example, Stadium Station consists of the two TRAX stops (i.e., towards Daybreak or towards University Medical Center) and four Stadium Station bus stops.
2 Combined total of 12 stops within Main Campus with less than 2% of total ridership per stop location.
3 Combined total of 21 stops within Research Park with less than 2% of total ridership per stop location.

---

**KEY TAKEAWAYS**

- TRAX Light Rail serves 63% of transit users. Stadium Station has highest boardings/alightings, accommodating 25% of all transit trips to campus.
- Planned Mobility Hubs at Health Sciences, South Campus Drive, and 200 S will enhance transit connectivity. Additional coordination with UTA is required regarding future service to the University of Utah as the mobility hubs are constructed.
- Salt Lake City Transit Plan recommends a new high-capacity transit line (referred to by UTA and Salt Lake City as the Orange Line) to provide a direct link between Salt Lake City International Airport, downtown Salt Lake City, and the University of Utah.
Figure 20. Existing Transit Network
Figure 21. Existing UTA Ridership
The University of Utah operates a campus shuttle that services Main Campus and Health Sciences, as shown in Figure 23.

Riders are able to track the campus shuttle live through the TransLoc app, UofUbus.com website, and the MobileU app. The UofUbus.com website also provides shuttle routing and scheduling information.

Main Campus routes operate Mondays through Fridays. Due to reduced ridership due to COVID-19, only three of the seven Main Campus fixed routes (Blue Detour, Orange, and Circulator) are currently in operation. The five Hospital Routes provide regular service Mondays through Fridays, and limited service on the weekends. The hospital routes include an on-demand shuttle for which riders may request a ride to and from the University Hospital, Research Park, and Medical Center TRAX station. The University of Utah also provides shuttle services during special events such as football games and graduation.

Historical weekly shuttle ridership data and daily ridership by shuttle stop was reviewed. The University is in process of purchasing automatic passenger counters (APC) to improve data collection.

Figure 22 illustrates historical weekly ridership for the Fall and Spring semesters for the last few academic years. Prior to the COVID-19 pandemic, there were approximately 29,000 – 34,000 weekly shuttle passengers and 15-16 routes in operation. During the academic year affected by COVID (2020/21 academic year), shuttle ridership dropped to approximately 20% of pre-COVID ridership with 10 routes in operation. Recently, ridership has risen to 60% of pre-pandemic levels with 11 routes in operation.

Table 10 lists the most utilized stops, identified from a review of Fall 2022 ridership data. Each of the top-five shuttle stops is served by at least two shuttle routes except for Business Loop shuttle stop, which is only serviced by the Orange Route. These high-utilization stops are shown in Figure 23.

During COVID-19, shuttle ridership dropped to 20% of pre-pandemic levels and increased to 60% of pre-pandemic levels in Fall 2022.

A robust campus shuttle network is critical to reducing reliance on SOVs, and for improving convenience and accessibility of peripheral parking areas.
Table 10. Top Five Bus Stops (Main Campus Routes, August - October 2022)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>AVERAGE DAILY RIDERSHIP</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLUE DETOUR</td>
<td>545</td>
<td>Heritage</td>
<td>Park</td>
<td>Union</td>
<td>Kingsbury</td>
<td>Institute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(28%)</td>
<td>(20%)</td>
<td>(11%)</td>
<td>(7%)</td>
<td>(5%)</td>
</tr>
<tr>
<td>ORANGE</td>
<td>1,335</td>
<td>Heritage</td>
<td>Union</td>
<td>Business Loop</td>
<td>Museum</td>
<td>LNCO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(38%)</td>
<td>(36%)</td>
<td>(10%)</td>
<td>(4%)</td>
<td>(3%)</td>
</tr>
<tr>
<td>CIRCULATOR</td>
<td>542</td>
<td>Union</td>
<td>Heritage</td>
<td>Park</td>
<td>Social Work</td>
<td>E Village 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20%)</td>
<td>(17%)</td>
<td>(14%)</td>
<td>(6%)</td>
<td>(6%)</td>
</tr>
<tr>
<td>OVERALL</td>
<td>2,422</td>
<td>Heritage</td>
<td>Union</td>
<td>Park</td>
<td>Business Loop</td>
<td>Kingsbury</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(31%)</td>
<td>(27%)</td>
<td>(8%)</td>
<td>(5%)</td>
<td>(2%)</td>
</tr>
</tbody>
</table>

Figure 23. Campus Shuttle Routes (Fixed Routes)
DEFINING THE FUTURE
DEFINING THE FUTURE

The previous chapter defined current conditions on campus based on data collected 2019-2021 and known as of Fall 2022. That information is valuable to identify issues that impact campus today. To define a full set of solutions for today and the coming years, the analysis considers how conditions will change on campus over the next 10 years. These changes will come as a result of population changes, modal growth, and new development, as illustrated in Figure 24.

Figure 24. Factors Influencing Future Conditions

Population Changes
- Growth in enrollment and staffing

Modal Shifts
- Changes to the way students, faculty, and staff access campus

New Development
- Major building capital changes on campus

FUTURE GROWTH

The University of Utah is planning for increased programming and student enrollment. The University of Utah Strategy 2025 sets a goal to increase student enrollment to 40,000 by 2025. By 2033, the projected campus population will add more than 19,000 faculty, staff, and students as the total campus population approaches 100,000 people, as illustrated in Figure 25. Projections for Students, Health Sciences Employees, and Main Campus Faculty/Staff assume an approximate 2% annual growth rate. Projections for Research Park Faculty/employees assume an overall 5% increase.

Figure 25. Campus Population Growth

NEW CAMPUS DEVELOPMENT

Several capital projects are planned or underway to meet the needs of the growing campus population. New buildings and parking facilities that are under construction or planned within the 10-year horizon are listed in Appendix B. Future development is reflected in planning scenarios as described in the sections that follow.

IMPACTS TO STREET NETWORK

The projected growth could add up to 8,600 vehicles per day to campus and adjacent streets, or an approximately 20% increase from 2022. During AM and PM peak commuting periods, the growth could add 1,680-1,850 vehicles to major arterials (North Campus Drive, South Campus Drive, Foothill Drive, etc.) that already experience congestion. Foothill Drive currently carries approximately 52,000 vehicles per day. An additional 5,000 vehicles per day, resulting from campus growth, would exceed the capacity of this 6-lane roadway, underscoring the importance of decreasing reliance on SOVs.
PARK + MODELING TOOLS

To evaluate future-year conditions, a vehicle parking demand model, Park+, was prepared for the University of Utah campus to forecast the anticipated performance and vehicle parking infrastructure needs of the growing campus. Model inputs include the following:

- Land use
- Vehicle parking facilities
- Existing occupancy (observed and assumed)
- Restrictions
- User groups
- Campus mode share
- Maximum relationship distances (walk tolerance)

These inputs are used to allocate projected vehicle parking demand to adjacent vehicle facilities based on proximity and the availability of spaces in each vehicle parking facility. The model considers conditions unique to the university, changes to the system through user inputs, and can provide the following outputs:

- Vehicle parking ratio by user group
- Vehicle parking occupancies by defined user groups
- Unmet demand by user group

Unmet demand is generated when a vehicle user is unable to locate a vehicle parking space that is proximate to their desired destination. The overall vehicle parking ratio, occupancy, and unmet demand can be used to understand where the system is strained and areas where solutions may need to be concentrated to address anticipated challenges.

PLANNING SCENARIOS

Four planning scenarios were prepared and evaluated in the Park+ model. Each scenario, as outlined in Table 11, adds understanding to the issues the University of Utah will face as the campus grows and invests in the transportation system. The scenarios were tested using the University of Utah Park+ parking demand model. The following sections provide a high-level description of each scenario. Detailed descriptions and output for each scenario are included in Appendix B.

Table 11. Park+ Model Planning Scenarios

<table>
<thead>
<tr>
<th>SCENARIO</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| SCENARIO 0  
Baseline Growth | ▶ Reflects development projects in the pipeline as well as population growth anticipated on the campus  
▶ Identifies the strain the future system may face in a business-as-usual scenario |
| DISCOVER SCENARIO 1  
Supply-Based Solutions | ▶ Explores supply-based solutions to resolve unmet demand for the various user groups identified in the model |
| DISCOVER SCENARIO 2  
TDM Solutions | ▶ Explores how much mode shift would be needed for each user group to resolve unmet demand challenges |
| SCENARIO 3  
Recommended Hybrid Approach | ▶ Quantifies the impacts of recommended strategies which are a combination of parking policies, recommended additional supply, and TDM investments on the University’s parking system |
DEFINING THE PROBLEM: BASELINE GROWTH

Baseline Growth (Scenario 0) reflects the growth in the campus population as well as the planned building program. The scenario, illustrated in Figure 26, is designed to define parking conditions if no new, unprogrammed parking facilities are constructed, or no new policies or programs are implemented to discourage SOV travel to, from, and around campus.

ASSUMPTIONS

- Approximately 600,000 square feet of new academic space in four new buildings
- Approximately 5,000 new student residential beds on Main Campus
- Approximately 950 new student housing units in the West Village
- Three new buildings in the Health Sciences area
- The new 1,400-space Health Sciences Garage that is currently under construction

PERFORMANCE

Table 12. Baseline Growth Scenario, Park+ Results

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>EXISTING CONDITIONS</th>
<th>SCENARIO 0 – BASELINE GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VEHICLE PARKING SPACES</td>
<td>VEHICLE PARKING OCCUPANCY</td>
</tr>
<tr>
<td>STUDENT</td>
<td>5,942</td>
<td>77%</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
<td>2,731</td>
<td>64%</td>
</tr>
<tr>
<td>STUDENT RESIDENT</td>
<td>2,229</td>
<td>77%</td>
</tr>
<tr>
<td>VISITOR</td>
<td>1,368</td>
<td>57%</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>6,614</td>
<td>67%</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>8,947</td>
<td>63%</td>
</tr>
</tbody>
</table>

PROBLEM STATEMENT

Proximity and Spatial Mismatch

- The existing parking supply is not concentrated in desirable locations for commuter students and faculty/staff.

Supply Challenge

- New vehicle parking supply cannot keep up with the rapid pace of construction and growth of the commuter student and student resident population.
Figure 26. Baseline Growth Scenario
DISCOVERY: SUPPLY-BASED SOLUTIONS

Supply-Based Solutions (Scenario 1), illustrated in Figure 27, was prepared to explore how much new parking supply would be needed to meet future demand, assuming that travel choices are consistent with existing conditions and no further utilization of transit or active transportation modes is encouraged.

ASSUMPTIONS
- New buildings and development as identified in Scenario 0
- 1,500 new parking spaces at the South Campus Garage for students and faculty/staff
- 1,200 new parking spaces to support a new south campus residential facility
- 625 new parking spaces for students in Main Campus
- 410 new parking spaces in Fort Douglas for student residents parking

PERFORMANCE

Table 13. Supply-Based Solutions, Park+ Results

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>SCENARIO 0 - BASELINE GROWTH</th>
<th>SCENARIO 1 - SUPPLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VEHICLE PARKING SPACES</td>
<td>VEHICLE PARKING OCCUPANCY</td>
</tr>
<tr>
<td>STUDENT</td>
<td>4,935</td>
<td>90%</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
<td>2,193</td>
<td>88%</td>
</tr>
<tr>
<td>STUDENT RESIDENT</td>
<td>2,275</td>
<td>88%</td>
</tr>
<tr>
<td>VISITOR</td>
<td>1,295</td>
<td>61%</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>7,809</td>
<td>59%</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>8,947</td>
<td>66%</td>
</tr>
</tbody>
</table>

ALIGNMENT WITH GOALS

Scenario 1 is **not balanced** as it caters exclusively to SOVs.

Scenario 1 is **efficient** as it was determined through a data-driven approach and is right-sized to growth projections.

Scenario 1 is **not financially sustainable** as it would require a significant amount of investment in infrastructure.

Scenario 1 is **convenient** as it would make it easier for users to find vehicle parking on campus.
Figure 27. Supply-Based Solutions Scenario
Transportation Demand Management Solutions (Scenario 2) was prepared as an exploratory scenario to estimate the required reduction in SOV use through transportation demand management (TDM) strategies or a modal shift to active transportation or transit. This scenario assumes that no additional vehicle parking facilities are constructed beyond those identified in Baseline Growth (Scenario 0). The scenario also assumes that the “walk-tolerance”, defined as the distance that students, faculty, and staff are willing to walk, ride a bicycle, use campus shuttle, or a scooter to reach their destination increases.

**ASSUMPTIONS**

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>WALK TOLERANCE</th>
<th>TOTAL WALK TOLERANCE</th>
<th>SOV REDUCTION</th>
<th>2033 TOTAL SOV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADJUSTMENT (FT)</td>
<td>ASSUMPTION (FT)</td>
<td>FROM CURRENT</td>
<td>MODE SHARE</td>
</tr>
<tr>
<td>STUDENT</td>
<td>+2,000</td>
<td>5,000</td>
<td>-7%</td>
<td>29%</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
<td>-</td>
<td>3,000</td>
<td>-6%</td>
<td>53%</td>
</tr>
<tr>
<td>STUDENT RESIDENT</td>
<td>+2,500</td>
<td>5,000</td>
<td>-26%</td>
<td>10%</td>
</tr>
</tbody>
</table>

1. As compared to 2021 Annual Commuter Survey Report

**PERFORMANCE**

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>SCENARIO 0 - BASELINE GROWTH</th>
<th>SCENARIO 2 - TDM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VEHICLE PARKING SPACES</td>
<td>VEHICLE PARKING OCCUPANCY</td>
</tr>
<tr>
<td>STUDENT</td>
<td>4,935</td>
<td>90%</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
<td>2,193</td>
<td>88%</td>
</tr>
<tr>
<td>STUDENT RESIDENT</td>
<td>2,275</td>
<td>88%</td>
</tr>
<tr>
<td>VISITOR</td>
<td>1,295</td>
<td>61%</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>7,809</td>
<td>59%</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>8,947</td>
<td>66%</td>
</tr>
</tbody>
</table>

**ALIGNMENT WITH GOALS**

Scenario 2 is **not balanced** as it prioritizes non-vehicular travel modes over all others.

Scenario 2 is **efficient** as it reduces need for expensive new vehicle parking facilities, however, the required level of mode non-vehicle model share **may not be effectively** achieved.

Scenario 2 is **sustainable** because it addresses a reduction in SOVs and investment in cleaner modes of travel.

Scenario 2 is **convenient** for both those traveling by vehicle and those who choose to travel by other modes to and within the campus.
RECOMMENDATION: HYBRID SOLUTIONS

Hybrid Solutions (Scenario 3) represents a balanced approach to addressing campus parking demand. This hybrid scenario, illustrated in Figure 28, portrays the outcome of the strategies outlined in the Strategic Plan and quantifies the assumptions of the strategies as model inputs.

A hybrid approach assumes a combination of TDM including enhanced transit and active transportation use, parking policies, and new supply.

The Hybrid Solutions Scenario confirms a need for new vehicle parking supply, including a new parking garage in south campus, the garage is assumed to consist of up to 1,500 parking spaces. Sensitivity testing of Scenario 3 indicates that the garage could be optimally sized at 1,000 spaces and limited to student parking only. A reduced-size garage would not provide for staff/faculty parking.

ASSUMPTIONS

Table 16. Hybrid Solutions Scenario, Park+ Assumptions

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>NEW SUPPLY</th>
<th>TDM INVESTMENT OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>WALK TOLERANCE ADJUSTMENT (FT)</td>
</tr>
<tr>
<td>STUDENT</td>
<td>+1,210*</td>
<td>4,000</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
<td>+190</td>
<td>3,500</td>
</tr>
<tr>
<td>STUDENT RESIDENT</td>
<td>+300</td>
<td>4,000</td>
</tr>
<tr>
<td>VISITOR</td>
<td>-</td>
<td>3,000</td>
</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>-</td>
<td>1,000</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>-</td>
<td>1,250</td>
</tr>
</tbody>
</table>

*Net new student supply, reflective of a reallocation of 100 spaces in the Guardsman to student residents.

1. As compared to 2021 Annual Commuter Survey Report

PERFORMANCE

Table 17. Hybrid Solutions Scenario, Park+ Results

<table>
<thead>
<tr>
<th>USER GROUP</th>
<th>SCENARIO 0 - BASELINE GROWTH</th>
<th>SCENARIO 3 - HYBRID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VEHICLE PARKING SPACES</td>
<td>VEHICLE PARKING OCCUPANCY</td>
</tr>
<tr>
<td>STUDENT</td>
<td>4,935</td>
<td>90%</td>
</tr>
<tr>
<td>FACULTY/STAFF</td>
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</tr>
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</tr>
<tr>
<td>HEALTH SCIENCES</td>
<td>7,809</td>
<td>59%</td>
</tr>
<tr>
<td>RESEARCH PARK</td>
<td>8,947</td>
<td>66%</td>
</tr>
</tbody>
</table>
**ALIGNMENT WITH GOALS**

Scenario 3 is **balanced** as it provides a combination of new supply and TDM investment solutions to achieve a balanced system.

Scenario 3 is **efficient** as it considers both vehicle parking and TDM policies that create a more demand-responsive and data-driven transportation system. Required mode shifts are feasibly achieved.

Scenario 3 is **environmentally sustainable** as it supports carbon neutrality goals through investment in TDM Strategies and is financially sustainable by assuming a modest amount of new supply and the reallocation of spaces.

Scenario 3 is **convenient** because it provides a variety of accessible multi-modal options.

---

**Figure 28. Hybrid (Balanced Approach) Solutions Scenario**

Legend

- University Boundary
- New Supply
  - New Student Resident Supply
  - New Student and Staff/Faculty Supply
  - Space Reallocation

- Campus Area
  - Health Sciences
  - Main Campus
  - Research Park

- 100 spaces reallocated to Student Residents

- +150 Spaces
- +1500 Spaces

0 0.1 0.2 Miles
RECOMMENDATIONS
RECOMMENDATIONS

Strategic Plan recommendations summarize the results of the previous analysis into an implementable action plan, optimizing the infrastructure and investment strategy, and identifying how and when the University of Utah needs to begin to make changes to affect the future of campus.

The recommended strategies to achieve the stated Transportation and Parking Vision, Goals, and Objectives include:

- **STRATEGY GROUP** or primary strategy area
- **DESCRIPTION** including the purpose and relevant implementation information
- **INTENDED USER GROUP** of the campus population towards whom the strategy is directed
- **INTENDED BENEFITS** of what the University of Utah community should expect from the strategy rollout
- **ANTICIPATED COSTS** of the potential capital cost of the investment, as applicable
- **PROJECTED IMPACT** or anticipated effectiveness of the strategy
- **PRIORITY** of the strategy in relation to other plan recommendations
- **TIMEFRAME** within which the strategy should be implemented
- **RELATED STRATEGIES** which influence with or require coordination with this strategy

A timeline of recommendations in the short-term (<2 years), medium-term (2-5 years), and long-term (6-10 years) is illustrated in Figure 29. The phasing of the strategies is intended to provide time for critical communication of new changes and ample evaluation time to measure performance and adapt strategies.

Strategies are organized into the following categories:

- Data-Driven Management (DDM)
- Infrastructure (IN)
- Organizational/Administrative (OA)
- Permit Allocation (PA)
- Permit Pricing (PP)
- Travel Demand Management (TDM)

For each recommendation, a strategy sheet was prepared, and they are provided in the following pages. There are 18 short-term strategies, eight medium-term strategies, and two long-term strategies. Strategy sheets are intended to serve as a roadmap to their implementation.
Figure 29. Recommendations Timeline

- DDM-1 Integrated Mobility Management Platform
- DDM-2 Evaluation and Performance Monitoring
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-Modal Data Collection
- IN-1 Strategic New Parking Infrastructure
- IN-2 On-Campus Mobility Hub: Health Sciences
- OA-1 Establish TDM Implementation Committee
- OA-2 Centralized Bicycle Parking Operation and Management
- OA-3 Remote Work/Learning
- PA-1 Reduce Permit Flexibility
- PA-2 Expand Permit Parking Area
- PA-3 Establish Permit Limits (Freshman Parking)
- PA-4 Establish Permit Limits (Student Parking)
- PP-1 Increase Permit Prices
- PP-2 Demand-Driven Pricing (Visitor Parking)
- PP-3 Increase Permit Prices (Progressive Pricing)
- PP-4 Increase Permit Prices (A-Permit)
- PP-5 Increase Permit Prices (Garage Parking)
- PP-6 Demand-Driven Pricing (Location Based)
- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communications
- TDM-3 Staff Onboarding and Student Orientation
- PA-5 Tiered Permits
- In years 6-10, strategies implemented in short-term and mid-term should be monitored, evaluated, and modified to achieve desired performance objectives.
DATA-DRIVEN MANAGEMENT (DDM)
DATA-DRIVEN MANAGEMENT (DDM)

DDM-1 INTEGRATED MOBILITY MANAGEMENT PLATFORM

**DESCRIPTION**
Procure and implement an integrated mobility management platform for the University of Utah. Platform will consist of an app and a website to provide mobility and commute information in one place.

**INTENDED USER GROUPS**
- Students
- Staff/Faculty
- Visitors
- Health Sciences
- Research Park

**ANTICIPATED COSTS**
(2022 $s)
Costs range from $2-$4 per month per user. As an example, 40,000 users would cost between $960,000 and $1.9M per year.

**PROJECTED IMPACT**
High

**PRIORITY**
High

**TIMEFRAME**
Short (<2 yr)

**INTENDED BENEFITS**
- Facilitate flexible daily mode choice decision making
- Integrate with other mode options (UTA, SPIN, Carshare, etc.)
- Make non-driving options easy to access
- Directly incentivize shifts from non-single occupancy vehicle to other modes of transportation (transit, bicycle, walking, scooter)
- Continuously track transportation decisions from users and ridership/usage of major services and investments
- Identify real-time impacts of TDM strategies
- Provide targeted messaging to users based on proximity to campus, primary mode, and other characteristics
- Facilitate parking management (e.g., communicate when a lot is full)
- Make it easier to change parking pricing (e.g., for major events)

**RELATED STRATEGY**
- DDM-2 Evaluation and Performance Monitoring
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-Modal Data Collection
- OA-1 Establish TDM Implementation Committee
- PA-1 Reduce Permit Flexibility
- PA-3 Establish Permit Limits (Freshman Parking)
- PP-2 Demand-Driven Pricing (Visitor Parking)
- PP-3 Increase Permit Prices (Progressive Pricing)
- PA-4 Establish Permit Limits (Student Parking)
- TDM-2 TDM Messaging, Outreach, and Communication
- TDM-4 Car Share

**ACTION ITEM**
Select integrated mobility management platform
Identify staff/group to manage and maintain platform

**RESPONSIBLE GROUP**
TDM Implementation Committee
TDM Implementation Committee
TARGET METRICS
- Campus mode share (all user groups)
- Total UTA boardings and alightings within campus
- Parking metrics (parking permit usage; total daily parking; permits by type)
- Response rates/conversion for targeted communication efforts

ADDITIONAL INFORMATION
The system should support both the faculty/staff commute perspective (e.g., administering employee benefits and integrating with payroll) and student travel needs (e.g., access to long-term bike parking for on-campus residents). The Integrated Mobility Management Platform will include:
- Cost-sharing for carpool and carpool matching options
- Incentives/tracking for non-SOV modes
- UTA pass usage (if integrated)
- Campus shuttle ridership tracking
- Integration with existing parking management systems
- Vehicle parking payment and usage monitoring
- Ability to implement dynamic parking pricing
- Parking enforcement support
- Bike room/cage usage monitoring
- Offer and track usage of Guaranteed Ride Home program
- Targeted communications capabilities
- Ongoing high-quality data collection
- Ability to assess Return on Investment (ROI) and mode shift response to communications, incentives, and pricing changes
- Clear and useful administrator (back-end) and user (front-end) interfaces and features
- Optional integration of real-time data and other mobility apps/tools (e.g., Strava)

U of U should clearly designate roles and responsibilities for managing the platform, providing customer support to users, working with the vendor on new features, using all platform features to support TDM goals, and using the data and integrated dashboards to monitor progress and assess performance of new strategies.

PEER EXAMPLES
- Move VU Commute Hub
- OHSU Luum Transition
## Data-Driven Management

### Intended User Groups
- Students
- Staff/Faculty
- Visitors
- Health Sciences
- Research Park

### Anticipated Costs
Additional responsibility to TDM Manager position, or new staff position within Commuter Service

### Projected Impact
Medium

### Priority
High

### Timeframe
Short (< 2 yr)

### Description
Evaluate progress towards mode shift targets for each user group, report regularly, and adjust strategy as needed. Develop and track internal performance goals (parking occupancy, permit sales, user group behaviors) on an ongoing basis.

### Intended Benefits
- Deeper and more meaningful analytics for campus planning, including a better understanding of commute patterns, behavior shifts, and outcomes of implemented strategies
- Consistency with university goals

### Related Strategy
- DDM-1 Integrated Mobility Management Platform
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-modal Data Collection

### Target Metrics
- Campus mode share (all user groups)
- Parking occupancy
- Climate Action Plan Goals, as applicable

### Peer Examples
- Move VU Goals
- OHSU Transportation Demand Management Goals
  (refer to pages 10, 33-37, and 47-49)

### Action Item
<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify specific, achievable, and measurable goals to track implementation successes and inform adjustments to TDM and parking strategies</td>
<td>TDM Implementation Committee Commuter Services</td>
</tr>
<tr>
<td>Partner with campus research groups (UTC) to improve analysis of performance, using data streams available to Commuter Services and other departments to better understand the impacts of parking and TDM decisions</td>
<td>TDM Implementation Committee Commuter Services</td>
</tr>
<tr>
<td>Track and report on progress towards goals annually</td>
<td>TDM Implementation Committee Commuter Services</td>
</tr>
<tr>
<td>Develop annual TDM Implementation Report</td>
<td>TDM Implementation Committee</td>
</tr>
</tbody>
</table>
**DDM-3 LEVERAGE EXISTING PARKING DATA TO UNDERSTAND DEMAND**

**DATA-DRIVEN MANAGEMENT**

**INTENDED USER GROUPS**
- Students
- Staff/Faculty
- Visitors
- Health Sciences
- Research Park

**ANTICIPATED COSTS**
- New staff position within Commuter Services
- New equipment may cost up to $100,000 or more.

**PROJECTED IMPACT**
- Low

**PRIORITY**
- High

**TIMEFRAME**
- Short (< 2 yr)

**DESCRIPTION**
Use License Plate Recognition, back-end management, Parking Access Revenue Control Systems (PARCS), and other existing data streams to enhance understanding of parking behaviors on campus and to support other strategies.

**INTENDED BENEFITS**
- Enhance user behavior data to inform performance-based decision making

**RELATED STRATEGY**
- DDM-1 Integrated Mobility Management Platform
- DDM-2 Evaluation and Performance Monitoring
- DDM-4 Multi-modal Data Collection

**ACTION ITEM**
Prepare data improvement plan to review existing data streams and opportunities for enhancement. New equipment may be required.

**RESPONSIBLE GROUP**
- Commuter Services
- TDM Implementation Committee

**TARGET METRICS**
- Parking occupancy
- Permit sales
- Parking citations
**DDM-4 MULTI-MODAL DATA COLLECTION**

**DESCRIPTION**
Enhance campus-wide multi-modal data collection to support mode shift goals. Enhanced data may include travel mode by user group (student, etc.) and active transportation usage on key routes and facilities.

**INTENDED BENEFITS**
- Improved understanding of transportation trends on campus
- Support performance measure tracking of other strategies
- Ensure that the TDM program is data-driven

**RELATED STRATEGY**
- DDM-2 Evaluation and Performance Monitoring
- DDM-3 Leverage existing parking data streams to better understand demands
- IN-6 Bicycle Parking
- OA-2 Centralized Bicycle Parking Operation & Management

**TARGET METRICS**
- Completed annual travel survey data and report
- Bicycle parking count data and report

**PEER EXAMPLES**
- UC Davis Campus Travel Survey
- UW 2019 Bike Count Report
- Colorado State University bike counter (source: Bikes Count on Campus: Using Data To Support Bicycle Friendly Universities)
- American University Annual Transportation Performance Monitoring Plan Report

**ACTION ITEM**

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct travel survey annually</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Conduct regular bicycle parking monitoring to identify hourly, daily, weekly, and monthly demand trends across representative installations</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Utilize passive data collection equipment (e.g., pneumatic tubes, infrared bike counters, AI video algorithms) and other tools to regularly perform user counts for all modes</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Leverage the Integrated Mobility Management Platform (DDM 1) to collect data on Campus mode share (all user groups), Vehicle Miles Traveled (VMT) by mode, and mode shift trends</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Collaborate with University departments to conduct focused analysis</td>
<td>TDM Implementation Committee</td>
</tr>
</tbody>
</table>

**DATA-DRIVEN MANAGEMENT**

**INTENDED USER GROUPS**
- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

**ANTICIPATED COSTS**
- New staff position within Commuter Services

**PROJECTED IMPACT**
- Medium

**PRIORITY**
- Medium

**TIMEFRAME**
- Short (<2 yr)
INTENDED USER GROUPS

- Students
- Staff/Faculty
- Visitors

ANTICIPATED COSTS

(2022 $s)

- $95M (South Campus Garage)
- $7k-$9k/stall for surface parking

PROJECTED IMPACT

- Medium

PRIORITY

- High

TIMEFRAME

- Planning: Short (<2 yr)
- Design & Construction: Medium (2-5 yr)

DESCRIPTION

Plan, design, and construct new parking facilities, consistent with Hybrid Solutions (Scenario 3), which includes a new south campus parking garage, new parking near Shoreline Ridge, parking spaces in conjunction with the new south campus residential facility, and reallocating existing underutilized parking spaces at the Guardsman lot from Student Commuter to Student Residents. The Hybrid Solutions scenario represents a balanced approach to addressing campus parking demand through a combination of TDM, enhanced active transportation use, parking policies, and new supply.

Hybrid Solutions scenario parking infrastructure recommendations assume the percentage of campus population that travels by single occupancy vehicle to, from, and around campus is reduced by 12% (from today’s 49% based on the 2021 Annual Campus Travel Survey).

Sensitivity testing of Scenario 3 indicates that if mode choice goals are achieved, the new South Campus garage could be optimally sized at 1,000 spaces and limited to student parking only.

INTENDED BENEFITS

- Provide parking supply in areas of unmet (latent) demand

RELATED STRATEGY

- PA-2 Expand Permit Parking Area

ACTION ITEM

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Campus Parking Garage (1,000 to 1,500 spaces)</td>
<td>Campus Planning, Design &amp; Construction</td>
</tr>
<tr>
<td>New parking spaces near Shoreline Ridge (50 spaces)</td>
<td>Campus Planning, Design &amp; Construction</td>
</tr>
<tr>
<td>New parking spaces adjacent to new south campus residential facility (150 spaces)</td>
<td>Campus Planning, Design &amp; Construction, Student Life</td>
</tr>
<tr>
<td>Reallocate spaces at Guardsman lot from Student Commuter to Student Residents (~100 spaces)</td>
<td>Commuter Services</td>
</tr>
</tbody>
</table>

TARGET METRICS

- Parking Occupancy
IN-2 ON-CAMPUS MOBILITY HUB: HEALTH SCIENCE

DESCRIPTION
Plan and construct a mobility hub that consolidates transportation services at Health Sciences location. The Health Sciences location is located just west of the UTA Health Sciences TRAX Station. This site will primarily include surface parking with landscaping, bathroom facilities, and minimal other improvements.

INTENDED USER GROUPS
- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

ANTICIPATED COSTS
(2022 $s)
~ $1M, costs to be determined

PROJECTED IMPACT
High

PRIORITY
High

TIMEFRAME
Planning: Short (>2 yr)
Design & Construction: Medium (2-5 yr)

INTENDED BENEFITS
- Complimentary services such as end of trip facilities, bike parking, and trip planning
- Seamless experience for multimodal trips to, from, and within campus
- Enhanced functionality and safety of public transit space
- Increased transit ridership among all user groups

RELATED STRATEGY
- IN-3 On-Campus Mobility Hub: South Campus, 200 South
- IN-4 Active Transportation Funding
- IN-5 Campus Complete Streets Policy
- IN-6 Bicycle Parking
- TDM-1 UTA Integration

ACTION ITEM
<table>
<thead>
<tr>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify operational needs in conjunction with UTA</td>
</tr>
<tr>
<td>Pursue funding through collaboration with Wasatch Front Regional Council, UTA and Salt Lake City</td>
</tr>
</tbody>
</table>

TARGET METRICS
- Campus mode share (all user groups)
- UTA boardings & alightings within Campus
- Micro-mobility Trips Originating or Terminating within 250 feet of a Mobility Hub
- Climate Action Plan Goals, as applicable
**IN-3 ON-CAMPUS MOBILITY HUB: SOUTH CAMPUS, 200 SOUTH**

**DESCRIPTION**
Plan and construct a mobility hub that consolidates transportation services at South Campus and 200 South location.

South Campus: University of Utah Mobility Hub Study states that the 200 South Mobility Hub will primarily include surface parking with landscaping, bathroom facilities, and minimal other improvements. The study states that site may contain a variety of landscape and hardscape improvements, as well a potential of 14,000 square feet of commercial space and roughly 135 residential units in a stacked-flat design with above-grade parking.

200 South: University of Utah Mobility Hub Study states that the site will include some intersection changes and minimal landscape and hardscape improvements for the bulb-outs, curb extensions, and bus and shuttle stop areas. The 200 South Mobility Hub should be planned and implemented with Salt Lake City’s 200 South transportation improvements.

**INTENDED BENEFITS**
- Complementary services such as end-of-trip facilities, bike parking, trip planning, etc.
- Seamless experience for multimodal trips to, from, and within campus
- Enhanced functionality and safety of public transit space
- Increased transit ridership among all user groups

**RELATED STRATEGY**
- IN-2 On-Campus Mobility Hub Development: Health Science
- IN-4 Active Transportation Funding
- IN-5 Campus Complete Streets Policy
- IN-6 Bicycle Parking
- TDM-1 UTA Integration

**PROJECTED IMPACT**
Medium

**PRIORITY**
High

**TIMEFRAME**
- Planning: Medium (2-5 yr)
- Design & Construction: Long (6-10 yr)

**TARGET METRICS**
- Campus mode share (all user groups)
- UTA boardings and alightings within campus
- Micromobility trips originating or terminating within 250 feet of a mobility hub
- Climate Action Plan Goals, as applicable

**ACTION ITEM**
- Identify operational needs in conjunction with UTA
  - Responsible Group: Campus Planning, Design & Construction

- Pursue funding through collaboration with Wasatch Front Regional Council, UTA, and Salt Lake City
  - Responsible Group: Campus Planning, Design & Construction

**INFRASTRUCTURE**

**INTENDED USER GROUPS**
- Students
- Staff/Faculty
- Visitors

**ANTICIPATED COSTS**
(2022 $s)
- South Campus: $22.5M
- 200 South: ~$1M, costs to be determined
### IN-4 ACTIVE TRANSPORTATION FUNDING

#### DESCRIPTION
Establish dedicated funding stream for active transportation projects, bicycle parking, and bicycle repair. Opportunities include:

- Dedicate a percentage of vehicle parking revenue to bicycle parking
- Incorporate bicycle parking into design of new buildings

#### INTENDED BENEFITS
- Investment in active transportation facilities reduces need for new parking facilities

#### RELATED STRATEGY
- OA-1 Establish TDM Implementation Committee
- DDM-1 Integrated Mobility Management Platform
- TDM-2 TDM Messaging, Outreach, and Communication

#### TARGET METRICS
- Annual funding for active transportation projects

### ACTION ITEM | RESPONSIBLE GROUP
--- | ---
Develop policies to establish active transportation funding sources | TDM Implementation Committee
Create policy to incorporate new bicycle infrastructure into future development | Campus Planning, Design & Construction

### INTENDED USER GROUPS
- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

### ANTICIPATED COSTS
Costs to be determined

### PROJECTED IMPACT
Medium

### PRIORITY
High

### TIMEFRAME
Medium (2-5 yr)
### IN-5 Campus Complete Streets Policy

#### Description
Develop a University policy that prioritizes walking, biking, and connections to transit during design of campus buildings and internal roadway connections:

- Internal University policy to support roadway designs through campus which prioritize non-motorized users and adhere to national active transportation facility design guidance (FHWA Bikeway Facility Design Guide, NACTO Urban Bikeway Design Guide)
- Prioritize construction of low-stress multimodal connections to reduce active transportation trip distances from peripheral parking lots, connecting to transit, and within campus

#### Intended Benefits
- Improved connectivity for active transportation users across campus
- Increased active transportation trips to, from, and within campus
- Reduced active transportation trip distances between campus districts (Research Park, Main Campus, Health Sciences, etc.)

#### Related Strategy
- IN-2 On-Campus Mobility Hub: Health Sciences
- IN-3 On-Campus Mobility Hub: South Campus, 200 South
- IN-4 Active Transportation Funding
- OA-2 Centralize Bicycle Parking Operation and Management

#### Action Item

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner with UTA and Salt Lake City to pursue grant funding for high-quality, low-stress active transportation projects from 2011 Master Plan</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>Develop Campus Complete Streets policy</td>
<td>TDM Implementation Committee, Campus Planning, Design, &amp; Construction</td>
</tr>
<tr>
<td>Identify potential adjustments to 2011 Bicycle Master Plan project recommendations</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>Reprioritize projects in the 2011 Bicycle Master Plan which create low-stress connections (Red Butte Creek Trail, Mario Cappechi Path, Chipeta Protected Bike Lane, etc.)</td>
<td>TDM Implementation Committee</td>
</tr>
</tbody>
</table>

#### Target Metrics
- N/A
### INTENDED USER GROUPS
- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

### ANTICIPATED COSTS
Project-specific

### PROJECTED IMPACT
Medium

### PRIORITY
Medium

### TIMEFRAME
Medium (2-5 yr)

### DESCRIPTION
Create a standard high-quality bicycle parking offering across campus:

- Replace bicycle parking that does not meet Association of Pedestrian and Bicycle Professionals (APBP) guidelines
- Enhance real and perceived safety at short and long-term bicycle parking installations (e.g., lighting, security cameras, and visible siting)
- Upgrade wayfinding/informational signage to help locate existing bicycle parking (indoor and outdoor)
- Incorporate bicycle parking locations and types into integrated mobility management platform
- Provide access to charging infrastructure (power outlets) at long-term indoor bicycle parking installations
- Add bicycle repair stations to indoor and outdoor bicycle parking hubs which are more than ¼ mile away from existing bicycle repair stations (Research Park, University of Utah Health, Eccles Outpatient, etc.)
- Internal University policy to incorporate end-of-trip facilities (showers/changing rooms) and bicycle storage opportunities into designs of new buildings in convenient locations

### INTENDED BENEFITS
- Enhanced comfort and predictability for bicyclists parking within campus
- Increased bicycle mode-share across campus

### RELATED STRATEGY
- IN-4 Active Transportation Funding
- IN-5 Campus Complete Streets Policy
- OA-2 Centralize Bicycle Parking Operations and Management
- DDM-1 Integrated Mobility Management Platform
- DDM-4 Multi-Modal Data Collection

### ACTION ITEM
Construct ~350 covered bike racks and ~1,300 secure bicycle storage for a total of ~1,600 new bicycle parking spaces on campus; facilities should be located in central campus as well as peripheral parking lots to promote last-mile connections

### RESPONSIBLE GROUP
Commuter Services, Facilities, Sustainability

### TARGET METRICS
- Campus Mode Share (Annual Campus Travel Survey)
- Bicycle Parking Utilization Rates (Multi-Modal Data Collection)
- Long-term bicycle parking spaces to student population ratio
- Short-term bicycle parking spaces to student population ratio
- % of APBP-compliant bike parking spaces
- SOV trips to campus

### PEER EXAMPLES
- UC Davis Bicycle Parking webpage
- OHSU Go By Bike Valet Bike Parking
- UC Boulder Secure Bike Shelter Access
ORGANIZATIONAL/ADMINISTRATIVE (OA)
INTENDED USER GROUPS
- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

ANTICIPATED COSTS
N/A

PROJECTED IMPACT
High

PRIORITY
High

TIMEFRAME
Establish: Short (<2 yr)
Implementation: Ongoing

DESCRIPTION
Establish inter-departmental committee to champion implementation of TDM and parking strategies.

INTENDED BENEFITS
- Facilitate TDM implementation and tracking
- Cross-departmental collaboration
- Pooled resources to support implementation of TDM strategies

RELATED STRATEGY
- DDM-2 Evaluation and Performance Monitoring
- OA-2 Centralize Bicycle Parking Operations and Management
- TDM-2 TDM Messaging, Outreach, and Communication

ACTION ITEM
Establish TDM Implementation Committee

LEAD: Commuter Services
SUPPORTING: Campus Planning, Design & Construction, Sustainability, Student Life, Public Information Contacts

TARGET METRICS
- Campus Mode Share (Annual Campus Travel Survey)
OA-2 CENTRALIZED BICYCLE PARKING OPERATIONS AND MANAGEMENT

INTENDED USER GROUPS

- Students
- Faculty/Staff
- Health Sciences
- Research Park
- Visitors

ANTICIPATED COSTS

Staff dedicated to bicycle parking operation and management

PROJECTED IMPACT

Medium

PRIORITY

Medium

TIMEFRAME

Short (<2 yr)

DESCRIPTION

Provide consistency, predictability, and efficiency for bicycle parking across campus by unifying operations, management, and funding.

- Centralize oversight and operations of bike cages and secure bike rooms across campus under one office/department
- Establish dedicated funding stream for bicycle parking and bicycle repair enhancements (i.e., dedicate a percent of vehicle parking revenue to expand bicycle parking)
- Incorporate bicycle parking into budget proposals and designs of new buildings
- Review past exceptions granted regarding bicycle parking policy during building design; identify and close enforcement/policy gaps which contributed to exceptions being made
- Monitor bike parking capacity, demands, trends, and needs, and meet these through policy, stand-alone capital investments, and integration through planned development
- Use Integrated Mobility Management Platform to monitor bike room/cage use, and communicate effectively about bike parking
- Consider valet bike parking at high-demand locations
- Centralize bicycle permit process and bicycle parking enforcement for all short and long term parking areas.

INTENDED BENEFITS

- Enhanced comfort, convenience, security, and predictability for bicyclists parking within campus, all of which support mode shift to bicycling
- Budgetary efficiencies through consolidation of services
- Improved bicycle parking coverage in coordination with new campus construction

RELATED STRATEGY

- DDM-1 Integrated Mobility Management Platform
- DDM-2 Evaluate and Performance Monitoring
- DDM-4 Multi-Modal Data Collection
- IN-4 Active Transportation Funding
- IN-5 Campus Complete Streets Policy
- IN-6 Bicycle Parking
- OA-1 Establish TDM Implementation Committee

ACTION ITEM

Collaborate on management strategy for bicycle parking and identify funding to support TDM implementation

RESPONSIBLE GROUP

Commuter Services, Facilities, Sustainability

TARGET METRICS

- Campus Mode Share (Annual Campus Travel Survey)
- Bicycle Parking Utilization Rates (Multi-Modal Data Collection)
- Long-term bicycle parking spaces to student population ratio
- Short-term bicycle parking spaces to student population ratio
OA-3 REMOTE WORK / LEARNING

INTENDED USER GROUPS
Students
Faculty/Staff
Health Sciences
Research Park

ANTICIPATED COSTS
Programmatic, may require additional IT infrastructure, to be determined

PROJECTED IMPACT
Medium

PRIORITY
Medium

TIMEFRAME
Short (<2 yr)

DESCRIPTION
Support telework and remote learning through policy, scheduling, training, and communication to reduce trips to campus.

- Encourage telework/telelearning on bad-air days
- Develop University Employee Policy on flexible work arrangements to optimize remote work opportunities
- Expand hybrid class scheduling which includes both in-person and virtual instructions to reduce trips to campus
- Leverage Integrated Mobility Management Platform to promote remote work/learning to commuter students and faculty

INTENDED BENEFITS
- Reduce total trips to campus

RELATED STRATEGY
- DDM-1 Integrated Mobility Management Platform
- PA-1 Reduce Permit Flexibility
- PA-3 Establish Permit Limits (Freshmen Parking)
- PA-4 Establish Permit Limits (Student Parking)
- OA-1 Establish TDM Implementation Committee
- TDM-2 TDM Messaging, Outreach, and Communication
- TDM-3 Staff Onboarding and Student Orientation

ACTION ITEM

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop supportive University policy</td>
<td>Administration</td>
</tr>
<tr>
<td>Adjust class scheduling/format options for professors</td>
<td>Administration</td>
</tr>
<tr>
<td>Increased promotion of flexible work arrangements</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>Develop University Employee Policy on flexible work</td>
<td>Human Resources, Administration</td>
</tr>
</tbody>
</table>

TARGET METRICS
- Campus Mode-Share (% telework/telecommuting)
- Ratio of traditional vs. hybrid class format offerings
- Additional SMART Goals/Climate Action Plan Goals, as applicable
PERMIT ALLOCATION (PA)

PA-1 REDUCE PERMIT FLEXIBILITY

**DESCRIPTION**
Limit residential students to Housing (HU) lots only (no flexing to U-permit spaces).

**INTENDED BENEFITS**
- Reduce competition for U-Permit spaces, freeing up 500-1,000 +/- spaces during peak conditions in these lots; potential unintended effects include increased competition for visitor permit spaces where H students begin to drive in for those locations

**RELATED STRATEGY**
- PA-3 Establish Permit Limits (Freshmen Parking)
- PA-4 Establish Permit Limits (Student Parking)
- TDM-3 Staff Onboarding and Student Orientation
- TDM-4 Car Share

**ACTION ITEM**
Adjust student resident permit

**RESPONSIBLE GROUP**
Commuter Services

**TARGET METRICS**
- U-Permit and H-Permit occupancy levels – determine where space allocation shifts may be considered
## PA-2 Expand Permit Parking Areas

### Description
Increase permit/visitor spaces in garages with lower utilization:

- Add daily parking before increasing permit sales (daily parking is easier to withdraw if there are unintended consequences)
- Projected parking occupancy data shows parking spaces located adjacent to Main Campus that can be re-allocated:
  - Lot 45: Ambulatory Care Garage
    - Utilization: 64%
    - Spaces: 610
  - Lot 50: North Medical Garage
    - Utilization: 70%
    - Spaces: 806
  - Lot 51: Helipad Garage
    - Utilization: 74%
    - Spaces: 380
  - Lot 81: Shoreline Ridge Garage
    - Utilization: 61%
    - Spaces: 910

### Intended Benefits
- Provide more spaces for permits (A-Permits) and Visitor/Daily parking; unintended impacts may include increased competition for garage spaces, and reduced availability and convenience for target audience (hospital staff and patients/visitors)

### Related Strategy
- IN-1 Strategic New Parking Infrastructure
- DDM-4 Multi-Modal Data Collection
- PP-2 Demand-Driven Pricing (Visitor Parking)
- PP-5 Increase Permit Prices (Garage Permit)

### Permit Allocation

<table>
<thead>
<tr>
<th>Intended User Groups</th>
<th>Anticipated Costs</th>
<th>Projected Impact</th>
<th>Priority</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff/Faculty Visitors</td>
<td>Staff time, signage, education</td>
<td>Medium</td>
<td>Medium</td>
<td>Short (&lt;2 yr)</td>
</tr>
</tbody>
</table>

### Action Item

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve data monitoring to understand availability of spaces to re-allocate and communicate to the campus population</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Adjust allocation of spaces in garage</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Monitor parking garage occupancy levels, with target goals of 75-85% occupied on average</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
</tbody>
</table>

### Target Metrics
- Parking garage occupancy levels – using thresholds to determine when to cut off oversell
### PA-3 Establish Permit Limits (Freshman Parking)

#### Description
Restrict freshmen to park in fringe or outer parking areas only

#### Intended Benefits
- Reduce competition for campus core U-Permit spaces and reduce core parking demand
- Long-term shift to non-automotive modes on campus
- An unintended effect is a potential increase to visitor parking by freshmen students

#### Related Strategy
- PA-1 Reduce Permit Flexibility
- PA-4 Establish Permit Limits (Student Parking)
- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communication
- TDM-4 Car Share

#### Target Metrics
- U-Permit occupancy and sales –determine where space allocation shifts need to be considered
- Visitor parking occupancy –determining where space allocation shifts need to be considered

#### Action Item | Responsible Group
---|---
Adjust parking policy | Commuter Services
Educate incoming students to support shifts to non-automotive modes | Commuter Services, Student Life
Improve micro-mobility options on campus | Commuter Services
Improve active transportation or transit connections to campus for commuting freshmen | Commuter Services
Monitor U-permit & visitor parking occupancy and sales | Commuter Services, TDM Implementation Committee
# PA-4 Establish Permit Limits (Student Parking)

## Permit Allocation

**Intended User Group**
- Students

**Anticipated Costs**
- Programmatic

**Projected Impact**
- High

**Priority**
- Medium

**Timeframe**
- Medium (2-5 yr)

## Description
Limit the number of on-campus student parking spaces, through the use of seniority and/or a lottery

## Intended Benefits
- Reduce competition for campus core U-Permit spaces and reduce core parking demand
- Long-term shift to non-automotive modes on campus
- An unintended effect is increases to visitor parking levels by non-permitted students

## Related Strategy
- PA-3 Establish Permit Limits (Freshman Parking)
- PP-5 Increase Permit Prices (Garage Permit)
- TDM-4 Car Share
- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communication

## Target Metrics
- U-Permit occupancy and sales – observing and determining where space allocation shifts need to be considered
- Visitor parking occupancy – observing and determining where space allocation shifts need to be considered

## Action Item | Responsible Group
---|---
Adjust parking policy | Commuter Services
Educate incoming students to support shifts to non-automotive modes | Sustainable Office, Commuter Services, Student Life
Improve micromobility options on campus | Commuter Services
Improve active transportation or transit connections to campus for commuting freshmen | Commuter Services
Monitor U-permit and visitor parking occupancy and sales | Commuter Services, TDM Implementation Committee
### PA-5 Tiered Permits

**Description**
Implement park-and-ride permits at perimeter or off-campus

**Intended Benefits**
- Create equitable parking options with adequate connections to transit and modal options; this may create a perception of inequity for lower-paid staff

**Related Strategy**
- PA-2 Expand Permit Parking Areas
- PA-3 Establish Permit Limits (Freshmen Parking)
- TDM-1 UTA Integration

**Target Metrics**
- System occupancy levels (core vs. fringe)

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Responsible Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement consistent and reliable shuttling from park-and-ride facilities into campus core</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Identify and establish off-campus parking locations</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
<tr>
<td>Implement park-and-ride permits</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
</tbody>
</table>
PERMIT PRICING (PP)
PERMIT PRICING (PP)

PP-1 INCREASE PERMIT PRICES

DESCRIPTION
Adjust permit prices to market rate ($500-600 annually)

INTENDED BENEFITS
- Promote sustainable behavior toward U-permit purchases (initially, it’s likely there won’t be a noticeable change as students continue to purchase permits until prices are increased sufficiently to correspond to changing mode choice); this may have an unintended effect of some Faculty/Staff/Employees migrating back to A-Permits, increasing competition for A-Permits

RELATED STRATEGY
- DDM-1 Integrated Mobility Management Platform
- PA-3 Establish Permit Limits (Freshmen Parking)
- PA-4 Establish Permit Limits (Student Parking)
- PP-3 Increase Permit Prices (Progressive Pricing)
- PP-4 Increase Permit Prices (A-Permit)

ACTION ITEM | RESPONSIBLE GROUP
--- | ---
Adjust U-Permit prices | Commuter Services
Monitor U-Permit, A-Permit, and visitor parking occupancy levels to see if there are shifts | Commuter Services, TDM Implementation Committee
Improve connectivity to campus for price-averse students that choose not to purchase a higher priced permit | TDM Implementation Committee

TARGET METRICS
- U-Permit sales
- U-Permit and A-Permit occupancy levels – Observing and determining where space allocation shifts need to be considered
PERMIT PRICING

INTENDED USER GROUP

Visitors

ANTICIPATED COSTS

Programmatic; variable pricing requires enhanced data collection; potential payment system upgrades

PROJECTED IMPACT

Medium

PRIORITY

Low

TIMEFRAME

Short (<2 yr)

DESCRIPTION

Set demand-based pricing thresholds for visitor parking rates:

- Increase visitor pricing in areas of higher demand (>85%)
- Maintain visitor pricing in areas of moderate demand (65-85%)
- Lower visitor pricing in areas of low demand (<65%)

INTENDED BENEFITS

- Reduce competition for primary core visitor spaces and promote balance on the fringes of campus; this may lead to unintended effect of shifting areas of highest demand, or users deciding to pay more resulting in minimal behavior shifts

RELATED STRATEGY

- DDM-1 Integrated Mobility Management Platform
- DDM-3 Leverage Existing Parking Data to Understand Demand
- DDM-4 Multi-modal Data Collection
- PP-3 Increase Permit Prices (Progressive Pricing)
- PP-6 Demand-Driven Pricing (Location-Based)

ACTION ITEM

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve data monitoring regarding availability of spaces and timing to adjust pricing (once annually)</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Adjust visitor prices</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Monitor permit sales and adjust pricing if needed</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
</tbody>
</table>

TARGET METRICS

- Visitor parking occupancy levels
- Permit sales
### PP-3 INCREASE PERMIT PRICES (PROGRESSIVE PRICING)

#### INTENDED USER GROUPS
- Students
- Staff/Faculty
- Visitors

#### ANTICIPATED COSTS
- Programmatic

#### PROJECTED IMPACT
- Low

#### PRIORITY
- Medium

#### TIMEFRAME
- Long (6-10 yr)

#### DESCRIPTION
Define progressive pricing structure for temporary permits, based on number of uses per semester

#### INTENDED BENEFITS
- Reduce reliance on temporary permits as a means of close-in parking; this may lead to reduced temporary permit sales and a corresponding increase in visitor parking sales

#### RELATED STRATEGY
- PA-5 Tiered Permit
- PP-2 Demand-Driven Pricing (Visitor Parking)
- PP-6 Demand-Driven Pricing (Location-Based)
- TDM-2 TDM Messaging, Outreach, and Communication

#### ACTION ITEM | RESPONSIBLE GROUP
--- | ---
Update permit policy | Commuter Services
Increase education and marketing of daily/visitor parking system as an alternative option | Commuter Services
Monitor temporary permit sales and visitor parking occupancy | Commuter Services

#### TARGET METRICS
- Permit sales
- Visitor parking occupancies
**PP-4 INCREASE PERMIT PRICES (A-PERMIT)**

**PERMIT PRICING**

**INTENDED USER GROUP**
Staff/Faculty

**ANTICIPATED COSTS**
Programmatic

**PROJECTED IMPACT**
Medium

**PRIORITY**
Medium

**TIMEFRAME**
Medium (2-5 yr)

---

**DESCRIPTION**
Set thresholds to adjust A-Permit prices in future years

**INTENDED BENEFITS**
- Promote sustainable behavior toward permit purchases. A-Permit price shifts will likely be more effective at changing behaviors initially than U-Permit/student driven. This may lead to the unintended effect of reduced permit sales (corresponding to increased visitor parking sales)

**RELATED STRATEGY**
- DDM-1 Integrated Mobility Management Platform
- PP-1 Increase Permit Prices (U-Permit)
- PP-3 Increase Permit Prices (Progressive Pricing)
- TDM-1 UTA Integration
- TDM-2 TDM Messaging, Outreach, and Communication

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**TARGET METRICS**
- A-Permit and visitor sales
- U-Permit, A-Permit, and visitor occupancy levels – Observing and determining where space allocation shifts need to be considered

---

**ACTION ITEM**

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Adjust A-Permit prices</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Inform employees of parking policies and alternative modes</td>
<td>Commuter Services, Administration</td>
</tr>
<tr>
<td>Monitor A-Permit and visitor permit sales to see if there are shifts</td>
<td>Commuter Service, TDM Implementation Committee</td>
</tr>
<tr>
<td>Monitor U-Permit, A-Permit, and visitor permit sales and parking occupancy levels to see if there are shifts</td>
<td>Commuter Service, TDM Implementation Committee</td>
</tr>
<tr>
<td>Improve connectivity to campus for price-averse employees that choose not to purchase a higher priced permit</td>
<td>TDM Implementation Committee</td>
</tr>
</tbody>
</table>
**INTENDED USER GROUPS**

- Students
- Staff/Faculty
- Student Residents
- Visitors
- Health Sciences

**ANTICIPATED COSTS**

- Programmatic

**PROJECTED IMPACT**

- Low

**PRIORITY**

- Medium

**TIMEFRAME**

- Medium (2-5 yr)

---

**DESCRIPTION**

Adjust garage (unreserved) prices to manage demands. Prices could be increased or decreased if the goal is to incentivize utilization of garage.

**INTENDED BENEFITS**

- Promote sustainable behavior toward permit purchases
- This may have the unintended effect of reduced permit sales (corresponding to increased visitor parking sales) in areas with price increases or increased competition in areas with price decreases

**RELATED STRATEGY**

- DDM-1 Integrated Mobility Management Platform
- PP-1 Increase Permit Prices (U-Permit)
- PP-3 Increase Permit Prices (Progressive Pricing)
- TDM-2 TDM Messaging, Outreach, and Communication
- TDM-1 UTA Integration

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**ACTION ITEM**

<table>
<thead>
<tr>
<th>Description</th>
<th>Responsible Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve data monitoring capabilities to help define price adjustment decisions</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Adjust parking permit policy</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Inform change in garage permit prices</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
<tr>
<td>Monitor permit sales, as well as occupancy to see if there are shifts parking trend</td>
<td>Commuter Services, TDM Implementation Committee</td>
</tr>
<tr>
<td>Improve connectivity to campus for price-averse permit-holders that choose not to purchase a higher priced permit</td>
<td>TDM Implementation Committee</td>
</tr>
</tbody>
</table>

**TARGET METRICS**

- Permit sales and occupancy levels – observing and determining where space allocation shifts need to be considered
- Visitor parking occupancies to identify shifts
**PERMIT PRICING**

**INTENDED USER GROUPS**
- Students
- Staff/Faculty
- Visitors

**ANTICIPATED COSTS**
Programmatic; variable pricing requires enhanced data collection; potential payment system upgrades

**PROJECTED IMPACT**
Low

**PRIORITY**
Low

**TIMEFRAME**
Long (6-10 yr)

**DESCRIPTION**
Consider highest demand areas as PAYG only
- Increase visitor pricing in areas of higher demand (>85%)
- Maintain visitor pricing in areas of moderate demand (65-85%)
- Lower visitor pricing in areas of low demand (<65%)

**INTENDED BENEFITS**
Reduce competition for primary core visitor spaces and promote balance on the fringes of campus; this may have the unintended effect of simply shifting areas of highest demand, or people may decide to pay more, and behavior shifts will be minimal

**RELATED STRATEGY**
- PA-5 Tiered Permit
- PP-2 Demand-Driven Pricing (Visitor Parking)
- PP-3 Increase Permit Prices (Progressive Pricing)
- DDM-3 Leverage Existing Parking Data to Understand Demand
- TDM-2 TDM Messaging, Outreach, and Communication

**ACTION ITEM**
<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjust permit allocation</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Increase education and marketing of daily/visitor parking system</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Monitor visitor parking occupancy and permit sales</td>
<td>Commuter Services</td>
</tr>
</tbody>
</table>

**TARGET METRICS**
- Visitor parking occupancy levels
- Permit sales
- Campus Mode Share (Annual Campus Travel Survey)
TRANSPORTATION DEMAND MANAGEMENT (TDM)
TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM-1 UTA INTEGRATION

INTENDED USER GROUPS
- Students
- Staff/Faculty
- Student Residents
- Visitors
- Health Sciences

ANTICIPATED COSTS
- Increased campus shuttle service;
- UTA cost-sharing

PROJECTED IMPACT
- Medium

PRIORITY
- Medium

TIMEFRAME
- Promote: Short (<2 yr)
- Enhance: Medium (2-5 yr)

DESCRIPTION
Coordinate with UTA to optimize bus service to campus, including end-of-line scheduling and requirements at planned Mobility Hubs.

INTENDED BENEFITS
- Enhanced collaboration with UTA
- Increased transit ridership through service improvements
- Improved transit offering as incentive for non-SOV trips
- Reduced SOV trips to campus
- Reduced demand for vehicle parking on-campus

RELATED STRATEGY
- DDM-1 Integrated Mobility Management Platform
- IN-2 On-Campus Mobility Hub: Health Science
- IN-3 On-Campus Mobility Hub: South Campus, 200 South
- TDM-2 TDM Messaging, Outreach, and Communication

ACTION ITEM | RESPONSIBLE GROUP
--- | ---
Collaborate with UTA to define desired bus service to campus | Campus Planning, Commuter Services
Collaborate with UTA to optimize bus service to campus | Campus Planning, Commuter Services
Monitor bus capacity trends and consider financial support to UTA to provide additional service to meet demand | Commuter Services
Collaborate with UTA to understand current driver shortage and consider potential partnerships to address | Commuter Services

TARGET METRICS
- Campus Mode Share (Annual Campus Travel Survey)
- Total UTA ridership within and to campus
### TDM-2 TRANSPORTATION DEMAND MANAGEMENT
**MESSAGING, OUTREACH, AND COMMUNICATIONS**

#### TRANSPORTATION DEMAND MANAGEMENT

<table>
<thead>
<tr>
<th>INTENDED USER GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
</tr>
<tr>
<td>Staff/Faculty</td>
</tr>
<tr>
<td>Student Residents</td>
</tr>
<tr>
<td>Visitors</td>
</tr>
<tr>
<td>Health Sciences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANTICIPATED COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECTED IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TIMEFRAME</th>
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</thead>
<tbody>
<tr>
<td>Short (&lt;2 yr)</td>
</tr>
</tbody>
</table>

#### DESCRIPTION
Promote non-motorized modes across all communication channels and materials

#### INTENDED BENEFITS
- Increased awareness of multi-modal connections to campus
- Encourage non-motorized trips to/from/within campus
- Create and strengthen community norms that support the use of non-motorized travel modes

#### RELATED STRATEGY
- DDM-1 Integrated Mobility Management Platform
- OA-1 Establish TDM Implementation Committee
- PA-1 Reduce Permit Flexibility
- PA-3 Establish Permit Limits (Freshman Parking)
- PA-4 Establish Permit Limits (Student Parking)
- TDM-1 UTA Integration
- TDM-3 Staff Onboarding and Student Orientation

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review current web site and organization to emphasize multi-modal commutes</td>
</tr>
<tr>
<td>and prioritize representation of non-motorized users; revisit regularly</td>
</tr>
<tr>
<td>Revisit Commuter Services web content to ensure pertinent and sufficient</td>
</tr>
<tr>
<td>information is available for all users (i.e., bicycle parking permit</td>
</tr>
<tr>
<td>instructions); revisit regularly</td>
</tr>
<tr>
<td>Promote TDM opportunities prominently across U of U website and in hiring/</td>
</tr>
<tr>
<td>recruiting/onboarding materials</td>
</tr>
<tr>
<td>Develop communication strategy and calendar to promote multi-modal</td>
</tr>
<tr>
<td>commuting through existing channels (through education, social norming)</td>
</tr>
<tr>
<td>Develop and promote challenges, promotions, and opportunities (e.g., Try</td>
</tr>
<tr>
<td>Transit week, Bike Month, Low Car Challenge, Bike with the President, etc.)</td>
</tr>
<tr>
<td>Identify sustainable funding for expanded TDM messaging and promotion;</td>
</tr>
<tr>
<td>consider combining funding from various departments</td>
</tr>
</tbody>
</table>

#### TARGET METRICS
- Campus Mode Share (Annual Campus Travel Survey)
- Commute Satisfaction (Annual Campus Travel Survey)

#### PEER EXAMPLES
- Portland State University Transportation & Parking Services Website
- University of Washington Transportation Services Website
- Western Washington University Bike Month Events
TDM–3 STAFF ONBOARDING AND STUDENT ORIENTATION

DESCRIPTION
Provide TDM and parking policy information material for staff onboarding and student orientation

INTENDED BENEFITS
- Increased awareness of multi-modal connections to campus
- Encourage non-motorized trips to/from/within campus
- Create and strengthen community norms that support the use of non-motorized travel modes

ANTICIPATED COSTS
Programmatic, education

PROJECTED IMPACT
Low

PRIORITY
Low

TIMEFRAME
Short (<2 yr)

INTENDED USER GROUPS
Students
Staff/Faculty
Student Residents
Health Sciences
Research Park

RELATED STRATEGY
- DDM-1 Integrated Mobility Management Platform
- OA-1 Establish TDM Implementation Committee
- TDM-2 TDM Messaging, Outreach, and Communication

TARGET METRICS
- Mode Share (Annual Campus Travel Survey)

ACTION ITEM
RESPONSIBLE GROUP

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Develop and distribute information materials</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Expand Travel Options Training for new employees and students</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>Review transportation components of employee onboarding and student</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>orientation to include information related to TDM measures and parking</td>
<td></td>
</tr>
<tr>
<td>policies</td>
<td></td>
</tr>
</tbody>
</table>

TRANSPORTATION DEMAND MANAGEMENT
TDM-4 CAR SHARE

TRANSPORTATION DEMAND MANAGEMENT

INTENDED USER GROUPS
Staff/Faculty
Student Residents

ANTICIPATED COSTS
Storage/site for vendor

PROJECTED IMPACT
Medium

PRIORITY
Low

TIMEFRAME
Medium (2-5 yr)

DESCRIPTION
Support on-campus carshare:

- Work with vendors to subsidize price and/or make appropriate contractual arrangements
- Provide dedicated parking spaces for carshare vehicles
- Promote carshare to student residents, students, and other potential users

INTENDED BENEFITS

- Reduced demand for on-campus vehicle storage from student residents
- Increased rate of car-free student residents
- Reduced perceived need for staff/faculty to drive, as they have an option for midday trips

RELATED STRATEGY

- DDM-1 Integrated Mobility Management Platform
- PA-1 Reduce Permit Flexibility
- PA-3 Establish Permit Limits (Freshman Parking)
- PA-4 Establish Permit Limits (Student Parking)
- TDM-2 TDM Messaging, Outreach, and Communications

ACTION ITEM

<table>
<thead>
<tr>
<th>ACTION ITEM</th>
<th>RESPONSIBLE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop RFP for carshare services</td>
<td>TDM Implementation Committee</td>
</tr>
<tr>
<td>Procure Carshare vendor</td>
<td>Commuter Services</td>
</tr>
<tr>
<td>Identify storage location for carshare vehicles</td>
<td>Commuter Services</td>
</tr>
</tbody>
</table>

TARGET METRICS

- Mode Share (Annual Campus Travel Survey)
- Total number of vehicle permit requests
- Shared car usage (from vendor) and calculated and cost per trip

PEER EXAMPLES

- Portland State University Student and Staff/Faculty Carshare
- UC Boulder Carsharing