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Existing Conditions

Introduction – Project Deep Dive
During the period of February 25-27th, 2009, two Alta staff visited Boise State University for an intensive three-day data/information collection period. The following meetings were held in conjunction with campus observations/field work during unscheduled hours.

- Project Kick-Off Meeting – February 25th
- Project Stakeholder Meeting – February 25th
- Existing Conditions Mapping Charette – February 27th
- Public Information Presentation – February 27th
In addition, Alta staff and two volunteers from Parking administered questionnaires to cyclists using the central quad between classes to gain additional student input.

Detailed summaries of the meetings above can be found in the Appendix.

Major Routes to BSU Campus
Field observations coupled with testimony gathered from students, staff, and faculty during the Deep Dive provide a good snapshot of the routes bicyclists are currently using when accessing the BSU campus. Through the information collected major routes can be categorized as:

- Bike or Pedestrian Only
- Shared with vehicle traffic along major busy streets', or
- Shared with vehicle traffic over a number of smaller local streets

Map 1 depicts the existing major vehicle and bicycle routes to and within the BSU campus, as well as the major conflict locations on campus.

Bike or Pedestrian Only Routes
Many bicyclists and pedestrians choose to access Boise State University via the 25-mile Boise River Greenbelt trail system, a paved and grade separated pathway that runs along the northern edge of campus on both sides of the Boise River. Two existing bridges provide connections over the river at 9th Street on an old rail trestle adjacent to the vehicle bridge and the Friendship Bridge in the middle of campus across from Julia Davis Park. Based on bicycle and pedestrian counts collected during the fall term, many people use the Boise River Greenbelt trail and Friendship Bridge to access campus. Survey results indicate cyclists choose to use this route even if it adds additional distance to their journey because of the barrier free access it provides.

Issues with the route include high volumes of pedestrians and bicyclists, high bicycle speed, and conflicts between other users such as joggers, inline skaters, and skateboarders. Additionally, periodic seasonal flooding of an underpass under Capitol Boulevard can result in awkward detours.

The Friendship Bridge provides a pleasant connection to campus
Routes Shared with Vehicle Traffic: Along Major Streets
For those without convenient access to the Boise River Greenbelt trail system such as neighborhoods to the south and southwest of campus it is difficult to reach the university without traveling along or through a busy vehicular corridor. Just south of BSU lies the ‘Bench’, a vertical plateau which limits the number of through streets. In the vicinity of BSU, only Protest Road and South Capitol Boulevard provide direct connections. Peasley Street, a local street provides a less busy connection just west of South Capitol Boulevard. Once north of the Bench bicycle facilities are not prevalent. Only Boise Avenue from Joyce Street to the southeast has bike lanes. Joyce Street is designated a Bike Route and connects the end of the bike lane on Boise Avenue to the heart of campus. Capitol Boulevard, University Drive, Lincoln Avenue, Broadway Avenue, and Beacon Street all have strong transportation influences on BSU and all lack bicycle facilities. Despite the lack of facilities, small numbers of bicyclists were reported using on each of these roadways to access campus.

Routes Shared with Vehicle Traffic: Local Streets
Many bicyclists avoid busier roads when possible and reach campus from lower order streets with less vehicular traffic. Bicyclists living just across University Drive from the core of campus use Crisway Drive, Juanita Street, and Joyce Street. Another corridor with distributed bicycle and pedestrian traffic exists from Michigan Avenue to Denver Avenue entering the south side of campus across Beacon Street.

With such a distributed array of routes to campus there are frequent crossings across University Drive. The most heavily used crossings are at Joyce Street, Michigan Avenue, and Manitou Avenue. Additionally, an unsignalized crossing of University Drive at Earle Street connecting to ‘University Square’ student housing was identified as having high volumes of pedestrians.

BSU / Ada County Highway District (ACHD) Coordination
ACHD has a “Roadways to Bikeways” bicycle master plan. BSU will be implementing this “Bicycle Pedestrian Safety Plan” and continuing with existing expansion plans. Therefore, it will be important for BSU and ACHD to coordinate planning and implementation efforts on the major non-motorized routes shared with vehicle traffic that connect to and extend through the Boise State campus.

Major On-Campus Routes
Once on campus, bicyclists and pedestrians favor the paved paths and walkways over travel along streets such as University Drive. The Boise River Greenway, while providing an excellent link to BSU, does not carry a large volume of intra-campus traffic. The bulk of east-west pedestrian and bicycle traffic occurs along a central pedestrian walkway on the north side of the central quad bound by the Multipurpose Classroom Facility to the west and the Liberal Arts Parking lot to the east. Outside of these extents the pedestrian and bicycle traffic disperses along a number of routes.
The recent completion of the Student Union Building (SUB) addition has produced an improved pedestrian corridor along the northeast wall of the Special Events Center (SEC) and the SUB itself. This major route not only serves the SUB and SEC, but provides a direct connection between the Recreation Center and the Engineering buildings to the core of campus. These two major routes are the widest and busiest corridors on the BSU campus.

Several other routes experience high numbers of bicycles and pedestrians, including the walkways connecting the residence halls to the core of campus and the SUB, smaller paths crossing the central quad and those that connect the Boise River Greenway to the interior of campus. Sidewalks along streets were observed to be sparsely used by pedestrians with the exception of sidewalks near the university parking garages.

Existing Conflicts
The Boise State University Campus is housed in a relatively small footprint as compared to many other Universities with similar enrollments. Buildings are densely packed and parking lots and service roads are spread around the campus. With such concentration of pedestrian, vehicle, and bicycle traffic conflict areas exist. These conflict areas have been identified through field observations and input gathered from students, faculty, and staff. Map 1 documents the major conflict locations described below.

Bicycle/Pedestrian Conflicts
High volumes of pedestrians and bicycles sharing a small amount of space can be problematic for both user types. Conflicts generally arise due to cyclists traveling too fast or by cyclists weaving through slower moving pedestrians. Several times each day, between classes thousands of students, faculty, and staff exit buildings and walk or bicycle to their next destination. This produces considerable congestion on campus walkways and it is during these times that conflict areas present themselves. The following locations described in Table 1 were identified through field observations and input gathered through campus meetings.
<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boardwalk underneath Capitol Boulevard bridge</td>
<td>This boardwalk sits at a low point where cyclists can gain speed on the decent. Heavy pedestrian traffic combined low visibility due to the curving boardwalk contribute to conflicts.</td>
</tr>
<tr>
<td>2</td>
<td>East side of Education Building passageway</td>
<td>This narrow walkway was integrated into the structure of the Education building. Many cyclists use this as a connector to the Boise River Greenway and the core of campus and come into conflict with pedestrians. The problem here is compounded by a building doorway that opens outward into the sidewalk.</td>
</tr>
<tr>
<td>3</td>
<td>South side of Friendship Bridge</td>
<td>Friendship Bridge connects the Boise River Greenway and the Boise State campus to the north side of the river and Julia Davis Park. Cyclists can gain speed as they travel south on the bridge and come into conflict with pedestrians and other bicycles.</td>
</tr>
<tr>
<td>4</td>
<td>Bend in Theater Lane between Amphitheater and Taylor Halls</td>
<td>From the Amphitheater to the eastern edge of campus, the Greenway is narrow and protected by wooden posts at frequent intervals. Most cyclists were observed riding along Cesar Chavez Lane rather than riding on the Greenway. The intersection of Cesar Chavez Lane and Theater Lane is a sharp downhill bend and cyclists traveling from the west are often not seen by vehicles and pedestrians.</td>
</tr>
<tr>
<td>5</td>
<td>Walkway junction between the ILC, MATH/GEO, EDUCATION, and Simplot Micron Buildings</td>
<td>This is a busy junction between several heavily trafficked buildings. It also interfaces with a service road that many cyclists use to access the core of campus. Because of the many legs of this junction and pedestrians and cyclists making their way through in all directions this location was noted as having conflicts.</td>
</tr>
<tr>
<td>6</td>
<td>Walkway between Business and MATH/GEO Buildings</td>
<td>The walkway between the Business and Math/Geosciences building was the most referenced conflict point in meetings and conversations with students, faculty and staff. A grove of trees, light poles, and bicycle racks are located within the central pedestrian walkway that serves as the</td>
</tr>
</tbody>
</table>
The walkway in front of Albertsons Library jogs to the south by about twenty feet as you travel to the east from the central quad. There is also a covered walkway attached to the library that is roughly equal the width of the sidewalk. Pedestrians use both areas, but bicycle traffic usually uses only the narrow sidewalk. These constrained conditions contribute to frequent conflicts.

The walkway at this point narrows by about four feet as users travel from west to east. By contrast, pedestrian and bicycle numbers remain relatively the same.

This section of the main central artery is narrow and serves as a major connection between the campus core and the residence halls, the athletic facilities, the SUB, and Engineering. Vehicles cross the pathway to access a parking lot east of the Hemingway Center.

**Bicycle/Vehicle Conflicts**

The Boise State campus is currently open to automobile traffic at all times. The majority of conflicts between bicyclists and vehicles occur as users compete for limited roadway space; other conflicts occur in the BSU parking lots and on service roads. Table 2 identifies the major bicycle/vehicle conflict points.

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roadway Conflicts</td>
<td>The roads surrounding campus, University Drive, Broadway Avenue, Capitol Boulevard, and Beacon Street, do not have dedicated on-street bicycle facilities. However, a few cyclists use these routes as part of their daily commute or as part of their route between classes.</td>
</tr>
<tr>
<td>2</td>
<td>Campus Service Roads</td>
<td>Bronco Circle is adjacent to the Student Union Building and many cyclists use this route to make a connection from the Engineering buildings and the Student Recreation Center to the walkways to the north of the Student Union Building. Metered and permit parking is available along Bronco Drive and delivery trucks use Bronco Drive to access the Student Union Building.</td>
</tr>
</tbody>
</table>
| 3 | Parking Lots | Parking lots can be dangerous places for cyclists. Vehicles are maneuvering in and out of parking spaces, and not watching for cyclists. However, in some cases cyclists must choose between riding on a busy street and riding through a parking lot.

On the western end of campus, Brady Street makes a direction connection between the Boise River Greenway and signalized crossing of University Drive. Especially in the morning and when events end, Brady is very congested with vehicles access the Brady garage and adjacent surface lots.

There are few walkway connections wide enough for bicycle traffic available to cyclists accessing campus from the south. Both Joyce and Juanita are excellent streets for cyclists to use to access campus. However, each street forces cyclists to weave around parking gates and through the Administration Visitor lot to get to the campus interior.

Just east of the Hemingway Center, Theater Drive runs adjacent to the liberal arts parking lot. As mentioned earlier, vehicles on Theater Drive cross a major east-west bicycle and corridor to access the north portion of the Liberal Arts parking lot and the Library lot.

Several cyclists indicated they used the dorm parking lot near Chaffee Hall and the Taco Bell Arena to travel between the Engineering buildings and the Boise River Greenway. |
### Existing Conditions: Pathway Summary

Most of the pathways on the Boise State campus are in good condition in terms of the condition of the paving surfaces. Table 3 documents the existing conditions and locations in need of improvements.

#### Table 3. Existing Conditions Pathway Summary

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Route Description / Condition</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brady Street and Cesar Chavez Lane</td>
<td>The Boise River Greenway is a popular route to and from campus; many Greenway users exit the trail exit the pathway at this point and access campus via Brady Street just east of the Morrison Center. The Greenway was recently paved and widened to sixteen feet and is separated from the roadway with a planter strip. The connection from the Greenway to Brady Street across Cesar Chavez is seamless (no curb). Scored concrete extends across the asphalt roadway to cue vehicle drivers of the crossing.</td>
<td><img src="image1" alt="Photo" /></td>
</tr>
<tr>
<td>2</td>
<td>Education Building</td>
<td>This sidewalk is the only direct, paved route between the ILC and the Greenway. The sidewalk narrows to approximately six feet through an opening in the Education Building and is partially blocked if the door to the building is open. The existing pathway is too narrow to allow pedestrians to safely share the pathway with cyclists and skaters. There is no space to widen the path as it passes through the Education Building.</td>
<td><img src="image2" alt="Photo" /></td>
</tr>
<tr>
<td>3</td>
<td>Between the ILC and Math/Geosciences Buildings</td>
<td>Cyclists headed north take a blind right toward the interior of campus at high speeds. The ILC is a main gathering area on the west side of campus and this intersection is often crowded. The existing pathway is 20 feet wide and is in excellent condition. The larger issue at this intersection is the amount of speed cyclists gain before they intersect the pathway leading toward the interior of campus.</td>
<td><img src="image3" alt="Photo" /></td>
</tr>
<tr>
<td>No.</td>
<td>Location</td>
<td>Route Description / Condition</td>
<td>Photo</td>
</tr>
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</tr>
<tr>
<td>4</td>
<td>Brady Street between the Morrison Center and Brady Garage</td>
<td>The central pedestrian walkway ends at a parking lot just west of the multi-purpose classroom facility. The number of users on the central walkway decreases west of the ILC. The existing sidewalks are approximately six feet wide. As the University expands west, these sidewalks will be inadequate.</td>
<td><img src="image1" alt="Photo" /></td>
</tr>
<tr>
<td>5</td>
<td>Between the Business and Math/Geosciences Buildings</td>
<td>High traffic area with light poles, trees and bike racks placed in the middle of the sidewalk. The paved pathway is approximately 18 feet wide and the pavement is in good condition. The trees, bike racks and light poles obstruct the flow of traffic. In addition, rocks from the tree wells and debris from the trees create a potentially unsafe situation for skaters.</td>
<td><img src="image2" alt="Photo" /></td>
</tr>
<tr>
<td>6</td>
<td>West of the Albertsons Library</td>
<td>The sidewalk narrows and makes a slight bend to the south as it passes in front of the Albertsons Library. A portion of the walkway is covered. The main throughway is 18 feet wide. On either side of the pathway, 1,080 square feet of additional paved area (18 feet wide and 60 feet long) is used for outdoor events. A ten foot wide lawn patch is worn from pedestrians and cyclists cutting across the widened event spaces to the sidewalk in front of the library.</td>
<td><img src="image3" alt="Photo" /></td>
</tr>
<tr>
<td>7</td>
<td>North of the Special Events Center and Student Union Building</td>
<td>High traffic area with 16 foot sidewalks and bike parking. This sidewalk was recently constructed and will adequately serve users for at least the next five to ten years.</td>
<td><img src="image4" alt="Photo" /></td>
</tr>
<tr>
<td>No.</td>
<td>Location</td>
<td>Route Description / Condition</td>
<td>Photo</td>
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</tr>
<tr>
<td>8</td>
<td>North of the Student Union Building</td>
<td>In most places the sidewalk is 16 feet wide. Portions of the sidewalk are obstructed by outdoor tables and chairs. The sidewalk width is sufficient. Construction of this facility was completed in 2008. Relocating outdoor furniture will increase the facility width.</td>
<td><img src="image1.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>9</td>
<td>East of the Student Recreation Center</td>
<td>A 10 foot sidewalk runs east of the Student Recreation Center between University and Belmont Street. The path is well-lit and provides a connection to neighborhoods south of campus. The sidewalk surface is in excellent condition. The width may need to be re-evaluated as the campus expands to the south.</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>10</td>
<td>University Drive west of the Special Events Center</td>
<td>University Drive lacks bicycle facilities and the existing sidewalks are between five and six feet wide. This facility is inadequate. The existing sidewalks are too narrow. In places there is no buffer (planter strip, parked cars, or berm) between those on the sidewalk and the traffic on University. As the University expands to the south or as improvements are made to University Drive, these facilities should be upgraded.</td>
<td><img src="image3.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>11</td>
<td>University Drive at Earl Street</td>
<td>Pedestrians cross 6 lanes of traffic at an unsignalized intersection. This crossing is particularly busy Monday and Wednesday mornings during the school year. Most vehicular traffic on University accesses the Brady Street Garage from the West. Earl Street is one block west of the garage.</td>
<td><img src="image4.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>No.</td>
<td>Location</td>
<td>Route Description / Condition</td>
<td>Photo</td>
</tr>
<tr>
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</tr>
<tr>
<td>12</td>
<td>Joyce Street south of University Drive</td>
<td>Joyce is a low-traffic neighborhood street with a signalized crossing at University drive. The existing pavement is very rough and sidewalks are five foot wide and obstructed by power line poles and vehicles. Joyce Street (ACHD-owned) has the potential to provide a connection between the neighborhood south of campus and the campus. The existing facilities will need to be upgraded to support this connection.</td>
<td><img src="image1.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>13</td>
<td>Between Taco Bell Arena and Bronco Stadium</td>
<td>Many cyclists take this route through the parking lot between the engineering buildings and the Boise River Greenway. Drivers are often focused on finding a parking space and not looking for cyclists. This is the most direct route between the Engineering buildings and a bridge across the Boise River proposed on the University's Master Plan. This connection should be improved prior to construction of the proposed bridge.</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>14</td>
<td>Between the Liberal Arts Lot and the Hemingway Center</td>
<td>The sidewalk narrows then crosses a roadway east of the Hemingway Center. Cyclists and pedestrians use this route to travel between the central quad and the Student Union Building. Vehicles use the roadway to access parking lots to the north and south of the Hemingway Center. This connection should be seamless for pedestrians and cyclists. Vehicles should be discouraged from using this route. The sidewalk width should also remain constant because the number of facility users does not decrease as you travel east.</td>
<td><img src="image3.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>15</td>
<td>Boise River Greenway east of the Amphitheater</td>
<td>The Greenway narrows to eight feet east of the Amphitheater and is separated from the roadway by a series of wooden bollards. Most cyclists opt to ride in the roadway rather than on the Greenway. This portion of the Greenway and Cesar Chavez Lane should be upgraded to match the facility between Friendship Bridge and the Capitol Boulevard undercrossing.</td>
<td><img src="image4.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>No.</td>
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</tr>
<tr>
<td>16</td>
<td>Cesar Chavez Lane north of the Amphitheater</td>
<td>The corner was indicated by many meeting participants as a dangerous intersection. Vehicles traveling north have a hard time seeing traffic approaching from the west on Cesar Chavez because of the slope and plantings around the amphitheater. The addition of lights and signs will improve the condition of this intersection. A more severe solution is to remove the landscape and berms.</td>
<td><img src="image1.png" alt="Photo" /></td>
</tr>
<tr>
<td>17</td>
<td>Boise River Greenway east of the Friendship Bridge</td>
<td>The Greenway narrows to eight feet east of the Amphitheater and is separated from the roadway by a series of wooden bollards. Most cyclists opted to ride in the roadway rather than on the Greenway. This portion of the Greenway and Cesar Chavez Lane should be upgraded to match the facility between Friendship Bridge and the Capitol Boulevard undercrossing.</td>
<td><img src="image2.png" alt="Photo" /></td>
</tr>
</tbody>
</table>
Existing Conditions: Bicycle Parking

Cyclists’ needs for bicycle parking range from a convenient piece of furniture, to storage in a bicycle locker that affords weather, theft, and vandalism protection, gear storage space, and 24-hour personal access. Most bicycles today cost 350 dollars to over 2,000 and are one of the top stolen items in all communities. Theft can be a serious deterrent to riding. Where a cyclist’s needs falls on this spectrum is determined by several factors:

- **Type of trip being made**: whether or not the bicycle will be left unattended all day or for just a few minutes.
- **Security of area**: determined by the cyclist’s perception.
- **Value of the bicycle**: the more a cyclist has invested in a bicycle, the more concern she or he will show for theft protection or how prone a given area is to bicycle theft.

Long-Term Bicycle Parking

Long-term bicycle parking provides employees, students, residents, commuters and others who generally stay at a site for several hours a secure and weather-protected place to park and store bicycles. The table below describes available long-term bicycle parking on campus.

**Table 4. Existing Long-Term Bicycle Parking**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnes Towers Hall and Chaffee Hall</td>
<td>Approximately 24 spaces are available for rent at each facility through Campus Housing. These lockers are available on a first come, first serve basis for $25 per semester. Campus Housing reported that the lockers are sold out and are usually rented to campus residents.</td>
<td><img src="image1.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>Kinesiology Building - basement</td>
<td>The Bike Barn offers secure, indoor parking with access to showers and lockers. Approximately 50 spaces are available and all of the spaces have been rented. Each person who rents a space is guaranteed to have a space available. Access is with a key card. There is a desire to expand this program to a room available in the Auxiliary Kinesiology building.</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
</tbody>
</table>
Short-Term Bicycle Parking

Short-term bicycle parking facilities are intended to provide short-term bicycle parking, and include racks which permit the locking of the bicycle frame and one wheel to the rack and support the bicycle in a stable position without damage to wheels, frame, or components. At least three different types of racks are provided for short-term bicycle parking needs on campus. This lack of consistency makes it difficult for cyclists to effectively use the available parking. The table below describes the available short-term bicycle parking on campus.

Table 5. Existing Short-Term Bicycle Parking

<table>
<thead>
<tr>
<th>Rack Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inverted U or Staple Rack</td>
<td>Several of these racks are located throughout campus including areas near the Rec Center, north of the Mathematics/Geosciences building, and near the new expansion of the Student Union Building. Staple racks allow users to secure the frame and one wheel to the rack and support the bicycle in a stable position. Observed problems with installation included: racks spaced too close together (Rec Center) and too close to the building (Math/Geosciences). Cyclists on campus also indicated that these racks are difficult for riders of “cruiser” style bicycles, popular on the BSU campus, to use because of the bike’s wide handlebars.</td>
</tr>
<tr>
<td>Comb Rack</td>
<td>These racks have been installed throughout campus as a means to mitigate a lack of bike parking in popular areas. The racks can be relocated to areas as needed. These racks typically fill from either end first. Parking on the end allows both the frame and one wheel to be secured. Only one wheel can be easily secured to the rack in the middle spaces.</td>
</tr>
<tr>
<td>Wave Rack</td>
<td>A few wave racks are located on campus. Both the frame and one wheel can be secured to the rack. If used properly, these racks provide adequate security and stability.</td>
</tr>
</tbody>
</table>
Recommendations

This section provides recommendations for conflict zones on the Boise State University campus. These recommendations were developed during an existing conditions mapping charette in collaboration with ZGF Architects. Alta understands that Boise State is interested in addressing problems at existing conflict zones, incorporating bicycle and pedestrian design guidelines in future campus master plans, and implementing these solutions in stages based on available funding. Improvements at specific conflict zones will compliment the larger non-motorized circulation plan.

Safety Improvements

As described previously, ten areas of campus were identified as conflict zones by campus administrators and students. Equally important are education, outreach, and incentive programs that promote safety among users of the campus bicycle and pedestrian network. Many creative programs are being used throughout the country to involve and educate communities about the importance of bicycling, walking, and sharing the road. Additional programs targeted at safety are included in the Appendix.

Education

1. Safety Handbooks

Bicycle safety handbooks are generally developed as part of a university-based bicycle and pedestrian safety program. Handbooks may include a circulation map of the campus and immediate neighborhood showing preferred circulation routes, parking locations, instructions for bicycle maintenance and use, instructions for fitting and wearing a helmet, instructions for properly securing a bicycle to a bike rack, a list of relevant walking and bicycling laws, lists of emergency numbers, and safety tips. These books can be distributed during new student orientation events.

2. Website Development

Boise State’s Parking and Transportation website already includes a page dedicated to Alternative Transportation. This page could be expanded to include safety information, route maps, shower and locker locations, and links to resource and advocacy organizations. Examples of similar websites from other universities are:

- Stanford University: http://transportation.stanford.edu/alt_transportation/BikingAtStanford.shtml
- UC Davis: http://www.taps.ucdavis.edu/bicycle/
- University of Montana: http://life.umt.edu/asmus/asum_agencies/Transportation/bike/default.php
- University of Washington: http://www.washington.edu/commuterservices/get_to_uw/employees/bike.php

Pedestrian Priority Zone / Dismount Zone

It can be dangerous when bicyclists choose to ride in busy pedestrian areas during peak periods. The most congested area on the BSU campus is the central east-west walkway on the north side of the central quad bound by the Multipurpose Classroom Facility to the west and the Liberal Arts Parking lot to the east. It is recommended at this time that the university take a two-stage approach to the idea of establishing a dismount zone for the Central Quad area. Stage One is in lieu of a Dismount Zone while establishing the framework for Stage Two, which is the implementation of a Dismount Zone.
Stage One:
- Installation of high-capacity bike parking at perimeter locations in conjunction with moving some existing parking to the perimeter
- Implementation of improved bicycle routes along the perimeter of the Central Quad
- Installation of improved signage and pavement markers to communicate to bicyclists expected behavior and routes
- Evaluation of bicycle/pedestrian interactions through Central Quad

Stage Two:
- After full implementation of Stage One measures, if actual and/or perceived safety issues continue in the Central Quad, implementation of a Dismount Zone, with appropriate signage and communication to student body and staff

Stage One: Pedestrian Priority Zone
To encourage cyclists to park their bikes and walk within the pedestrian priority zone, high-capacity bicycle parking is recommended along the perimeter of the zone, along with improved bicycle routes at the perimeter of the pedestrian priority zone. At the eastern and western entrance to the zone, signs and pavement markers will remind cyclists to yield to pedestrians and slow their speed. Wayfinding signs will also direct bicyclists to higher-speed routes north and south of the pedestrian priority zone.

Stage Two: Dismount Zone
If conflicts between pedestrians and bicyclists continue to occur in this congested area, it will be necessary to create a dismount zone in the campus core. No specific congestion point exists at which a dismount zone becomes mandatory, however, if there are more than 6 reported bicycle/pedestrian conflicts per hour (i.e. 1 every 10 minutes); a dismount zone should be considered. Therefore, it is recommended that regular bicycle and pedestrian counts and system evaluations be made to help campus officials determine the appropriateness of a dismount zone. Such a designation will require proper enforcement to make this measure successful in improving safety for pedestrians and bicyclists.

Prioritized Network Improvements
The proposed network is designed to appeal to the broadest number of campus visitors, to serve all parts of the campus, to minimize impacts, and maximize accessibility and safety. The proposed system is composed of a series of north-south corridors, east-west corridors, and outside connections to the Boise River Greenway and Ada County bike route system. Two phases are shown on the following improvement recommendation maps, a five year plan and a ten-fifteen year plan.

The prioritized network improvements are broken down into separate tables for existing facility improvements (Table 6), new facility developments (Table 7), and then an aggregated list of all recommended improvements (Table 8).
### Existing Facilities

#### Table 6. Existing Facility Improvement Recommendations

<table>
<thead>
<tr>
<th>Priority #</th>
<th># (from Table 3)</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>5-Year Improvement Recommendations</strong></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>Between the Business and Math/Geosciences Building</td>
<td>Move the bike racks and add a small border to the tree wells.</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>West of the Albertsons Library</td>
<td>Add an additional 10’-wide pathway along the desired travel lines in the Quad to connect the two paved pad areas used for outdoor events with the existing 18’ wide pathway as it passes in front of the library.</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>Between the Liberal Arts Lot and the Hemingway Center</td>
<td>Maintain the width of the sidewalk through the roadway/driveway. A raised roadway table, design cues to indicate that cyclists and pedestrians have the priority (planter beds, etc), and narrowing the vehicle access to twenty-feet (the minimum width required for fire department access) will improve the crossing. In the long term, the two lots on either side of the walk will be removed. Limit the number of permit holders who access to the northern most parking areas.</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>North of the Student Union Building</td>
<td>Relocate or reorganize the outdoor furniture to maximize the width available for pedestrians.</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>Brady Street between the Morrison Center and the Brady Garage</td>
<td>Widen the sidewalk as the University expands west to accommodate increased pedestrian traffic.</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>East of the Student Recreation Center</td>
<td>Re-evaluate the width of the sidewalk as the campus continues to expand south to ensure adequate width for pedestrians.</td>
</tr>
</tbody>
</table>

#### 10-15 Year Improvement Recommendations

<table>
<thead>
<tr>
<th>Priority #</th>
<th># (from Table 3)</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>Cesar Chavez Lane north of the</td>
<td>The addition of lights and signs will improve the condition of the intersection. A more severe solution is to remove the</td>
</tr>
</tbody>
</table>
Amphitheater landscape and berms.

<table>
<thead>
<tr>
<th></th>
<th>15</th>
<th>Boise River Greenway east of the Amphitheater</th>
<th>This portion of the Greenway and Cesar Chavez Lane should be upgraded to match the facility between the Friendship Bridge and the Capitol Boulevard undercrossing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>12</td>
<td>Joyce Street south of University Drive</td>
<td>Work with ACHD to improve the bicycle and pedestrian facilities along this ACHD-owned roadway.</td>
</tr>
</tbody>
</table>

**New Facilities**

Priority projects shown on the short term plan help improve routes between University Avenue and the Friendship Bridge and Boise River Greenway. Facilities are added and upgraded to help cyclists avoid the pedestrian improvement zone. University Avenue is configured to improve connections to transit and to improve pedestrian and bicyclist safety.

<table>
<thead>
<tr>
<th>Priority #</th>
<th>Location</th>
<th>Description</th>
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<tr>
<td>A</td>
<td>Friendship Bridge Approach to Special Events Center</td>
<td>A bicycle priority pathway will link Friendship Bridge to a signed bicycle route east of the Hemingway Center. The signed bicycle route can be upgraded to a shared use path once the Library and Liberal Arts lots are removed. A bicycle priority pathway will connect cyclists to improved parking at a future transit center west of the Student Union building.</td>
</tr>
</tbody>
</table>
| B          | Albertsons Library to Student Recreation Center                        | The pathway from the Albertsons Library, behind the Student Union Building, to the Recreation Center was the second-most popular route for cyclists surveyed during Project Deep Dive. A shared use pathway is defined by AASHTO as a facility on exclusive right-of-way and with minimal cross flow by motor vehicles. Sidewalks currently exist along this route and the widths were determined to be adequate for current demands during the facility evaluation phase. Southeast of the Hemingway Center, a driveway connects the Liberal Arts Lot with the Library Lot. A raised roadway table, design cues to indicate that cyclists and pedestrians have the priority, and narrowing the vehicle access to twenty-feet (the minimum width required for fire department access) will improve the crossing. In the long term, the two lots on either side of
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<tbody>
<tr>
<td>C</td>
<td>Boise River Greenway to Business Building</td>
<td>A bicycle priority pathway will be added between the Boise River Greenway and Friendship Bridge to new bicycle parking east of the Business building.</td>
</tr>
<tr>
<td>D</td>
<td>Diploma Street</td>
<td>When the new College of Business and Economics facility is complete at the corner of Capitol Boulevard and University Drive, a shared-use pathway will connect cyclists and pedestrians from the central core of campus to the new facility.</td>
</tr>
<tr>
<td>E</td>
<td>Brady Street between University and Boise River Greenway</td>
<td>A signed bicycle route will direct cyclists and pedestrians from University Square to the Boise River Greenway and Friendship Bridge on Brady Street.</td>
</tr>
<tr>
<td>F</td>
<td>Gateway Center to Education and Boise River Greenway</td>
<td>A signed bicycle route will direct cyclists and pedestrians from Gateway Center, across the University (existing signal), west of the Administration Visitor lot, and east of the Interactive Learning Center. A new shared-use pathway will connect to the Boise River Greenway just east of the Education building.</td>
</tr>
<tr>
<td>G</td>
<td>University Drive: SUB to Rec Center (Phase I)</td>
<td>The Boise State Framework Master Plan – 2008 Update calls for the creation of a drivable pathway between Lincoln Avenue and Stadium Drive (planned). Phase I, between the SUB and the Rec Center, is shown on the Recommendations map as a shared-use pathway. This route will provide an improved pedestrian and bicycle connection between the Engineering buildings and the Student Union building.</td>
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<tr>
<td>H</td>
<td>University Drive</td>
<td>While not a BSU facility, University Drive is the ‘front door’ of the campus and the street most cyclists and pedestrians cross to access the campus from the south. Coordinate with Ada County Highway Department to install 5’ wide bike lanes and improve pedestrian facilities along University Drive (a county-owned street adjacent to campus) between Capitol Boulevard and Lincoln Avenue.</td>
</tr>
</tbody>
</table>

**10-15 Year Improvement Recommendations**

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</thead>
<tbody>
<tr>
<td>A</td>
<td>University Drive: Rec Center to Stadium Drive (Phase II)</td>
<td>The Boise State Framework Master Plan – 2008 Update calls for the creation of a drivable pathway between Lincoln Avenue and Stadium Drive (planned). Phase II is shown on the Recommendations map as a shared-use pathway.</td>
</tr>
</tbody>
</table>
Bicycle and Pedestrian Safety Master Plan

The Boise State Framework Master Plan – 2008 Update proposes a pedestrian bridge across the Boise River as an alternative to the existing crossing on Broadway Avenue. A signed bicycle route / bike boulevard will direct cyclists from the Engineering buildings to the Boise River Greenway and this new crossing.

As the campus expands to include the area west of Lincoln Avenue, a signed bicycle route will be added to direct cyclists from the existing signal at Joyce Street to Belmont Street. The specific route should be determined during the planning process for this site.

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<th>Priority #</th>
<th>Location</th>
<th>Description</th>
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<tbody>
<tr>
<td>B</td>
<td>Stadium Drive</td>
<td>The Boise State Framework Master Plan – 2008 Update proposes a pedestrian bridge across the Boise River as an alternative to the existing crossing on Broadway Avenue. A signed bicycle route / bike boulevard will direct cyclists from the Engineering buildings to the Boise River Greenway and this new crossing.</td>
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<td>C</td>
<td>Joyce Street to Belmont Street</td>
<td>As the campus expands to include the area west of Lincoln Avenue, a signed bicycle route will be added to direct cyclists from the existing signal at Joyce Street to Belmont Street. The specific route should be determined during the planning process for this site.</td>
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Aggregated Priority List

The following tables combine the recommended improvements for existing and new facilities found in Table 6 and Table 7, respectively. Table 8 presents all of the 5-year recommendations and corresponds to Map 2. Table 9 presents all of the 10-15 year recommendations and corresponds to Map 3.

Table 8. 5-Year Aggregated Facility Development Recommendations

<table>
<thead>
<tr>
<th>Priority #</th>
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</tr>
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<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>5-Year Improvement Recommendations</td>
<td>Safety Handbooks for incoming freshman and new students as part orientation to provide all students with the knowledge about the rules, regulations, and expectations of being a bicyclist on the BSU campus.</td>
<td>Enhanced campus website that provides a one-stop location for all information related to biking and walking on campus.</td>
</tr>
<tr>
<td>Section</td>
<td>Location</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
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</tr>
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<td>Section</td>
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</tr>
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<tr>
<td>10-15 Year Improvement Recommendations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td>The addition of lights and signs will improve the condition of the intersection. A more severe solution is to remove the landscape and berms.</td>
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<td>2</td>
<td>Boise River Greenway</td>
<td>This portion of the Greenway and Cesar Chavez should be upgraded to match the facility between Friendship Bridge and the Capitol Boulevard under-crossing.</td>
</tr>
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<td>University Drive: Rec Center to Stadium Drive (Phase II)</td>
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<tr>
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<td>3</td>
<td>Joyce Street south of University Drive</td>
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</tbody>
</table>
**Signage**

**Wayfinding Signs**  
Wayfinding signs provide orientation for campus visitors and emphasize connectivity of the campus to the surrounding community. Distinctive campus bicycling system signage should be installed throughout the designated BSU campus bicycle system, similar to the example bike route sign in Figure 1. Bicycle signage should be placed at every major intersection along routes.

**Guidance Signs**  
Guidance signs provide information and guidance related to campus policy and regulations. Guidance signs should be posted at major campus entrances, at the entrance points to the Pedestrian Priority Zone/Dismount Zone area, and at all campus housing centers.
**Boise State University**

**Bicycle Parking**

Every bicycle trip has two basic components: the route selected by the cyclist and the “end-of-trip” facilities available when they reach campus. End-of-trip facilities include parking for the bicycle and showers and a changing space. If the end-of-trip facilities do not meet the users’ needs, other means of transportation will be substituted.

The type of parking required by each campus visitor will vary, based on personal preference. Some visitors will prefer to ride to campus, securely lock their bike, and leave it in one place for their time on campus. Others will want to use their bike for travel between campus locations and will require bicycle parking at all of their destinations. All bicycle parking should share some similar characteristics, including the following:

- Plentiful
- Appropriately Designed
- Easily-Accessible
- Adjacent to Destinations
- Secure and Covered

Bicycle parking is plentiful when there are enough short- and long-term bicycle parking spaces to meet peak season demand. Increasing bike parking options will generally increase cycling trips to campus. Installing bike parking beyond current peak levels will minimize costly annual upgrades to facilities by ensuring that there is adequate parking to meet current and latent demand.

Providing high-quality parking facilities nearby will encourage cyclists to leave their bikes at the edge of the pedestrian priority zone and walk to their central campus destinations. Initially, bike parking should be provided for approximately 10% of the peak time number of users for a building (i.e. 250 students/faculty at peak time would = 25 short term bike parking spots). To facilitate appropriate bicycle parking throughout campus, BSU must continually evaluate the demand for bicycle parking and provide sufficient supply to meet this demand. Conducting annual bike rack surveys during peak use times will ensure BSU is able to gauge the demand for bike parking. An example is Portland State University (PSU) which conducts annual counts of existing bike parking and usage level. In this way the university ensures that available bike parking is meeting current demand. At PSU the target amount of available short term bike parking is 7-10% of the total student population.

In the short term, the university’s moveable racks can be relocated to high-capacity areas near the perimeter of the pedestrian priority zone. In time, these racks should be replaced with industry standard staple racks and the campus should move toward standardized short term bicycle parking facilities. Bicycle parking should be integrated with new campus development projects. To determine the base number of bicycle parking spaces, the current bicycle mode split for both students and faculty/staff should be applied to the number of peak hour building occupants. This number should be adjusted if demand for bicycle parking in a specific location is found to exceed available parking. Locations for recommended short term parking are shown on the 5 Year and 10-15 Year Improvement Recommendations maps.
Bicycle Parking Design Guidelines

Short Term Parking
Appropriately designed short term bike parking facilities typically take the form of a simple bicycle rack. There are several important factors to consider when providing short-term bicycle parking:

- Type of rack
- Space requirements for each rack
- Location of the parking facility

Type of Rack
A bicycle rack should:

- Support the bicycle frame in two places
- Accommodate high-security U-shaped bike locks
- Enable the frame and one or both wheels to be secured

Inverted-U or staple racks (see Figure 2) are a commonly used rack that fulfills the above requirements. Figure 2 displays other appropriate rack styles. Figure 2 contains examples of styles that do not fulfill the above requirements and should be avoided.

Examples of Bicycle racks that do not meet the design requirements above:

![Grid or Fence Style Racks](image)

![Wave or Ribbon Style Racks](image)

Racks that hold the bike by the wheel with no way to lock the frame and wheel to the rack with a U-lock

Examples of Bicycle racks that do meet the design requirements above:

![Madrax Spartaa Rack](image)

![Madrax Sentry Rack](image)

![Dero Campus Rack](image)

![Inverted-U Type Racks](image)

Space Requirements

- Bicycle parking spaces should be at least 6 ft long and 2 ft wide. A common installation error is to leave insufficient space (less than 2 feet) between the rack and a building, another rack, or other obstacle (see Figure 3).
- Adjacent bicycle racks can be placed at a 60 degree angle to create more space for handle bars (see Figure 4)
Boise State University

- A 5 ft aisle for bicycle maneuvering should be provided and maintained beside or between each row of bicycle parking.
- Bicycle racks should be securely anchored to the surface or a structure.
- Overhead clearance in covered spaces should be at least 7 ft.

![Figure 3- Inverted “U” Rack and Space Guidelines](image)

Location of the Parking Facility

The location of parking facilities impacts both the bicycle’s security from theft or vandalism while it is parked at the facility and the bicyclist’s safety from traffic and crime as he or she enters and exits the parking area. Easily accessible parking should not be impeded by nearby stationary objects, parked bicycles, or parked cars. Indoor bicycle parking must be on a floor that has an outdoor entrance open for use and a floor location that does not require stairs to access the space; exceptions may be made for parking on upper stories with elevator access within multi-story buildings. Directional signs should be used to locate bicycle parking area when it is not visible from the street.

Items to consider with regard to location include:

- Bicycle parking should be located within 50 feet of the main entrance of a building
- A highly visible location is preferable to a dark or obscure one

![Figure 4 – Bicycle parking racks can be installed at a 60 degree angle to create additional space for bicycles with large handlebars.](image)
Bicycle and Pedestrian Safety Master Plan

- Bike parking should not obstruct pedestrian flow
- Bicycle parking should be at least as convenient as automobile parking
- Curb cuts near the facility can discourage cyclists from riding on the sidewalk to access parking

Long-term Parking
Secure long-term parking can be provided in a number of ways:

- Bicycle lockers
- Bicycle racks in a room or cage (with key or card access)
- Formal or informal supervision
- Full service bike depots with secure, attended, covered parking with lockers and showers

Integrating bicycle access on an increasingly pedestrian campus calls for an innovative approach to bicycle parking. Cyclists will be encouraged to bike to campus rather than drive if bike parking is more convenient than automobile parking. As the campus moves more and more toward garage parking around the campus perimeter, having an inner ring of high quality, high capacity bike parking along the edges of the pedestrian priority zone will support bicycling as a convenient mode choice.

Bicycle Lockers
Bicycle lockers provide space to store a bicycle as well as a few accessories or rain gear. Bicycle lockers have traditionally been available on a sign-up basis, whereby cyclists are given a key or a code to access a particular locker for a month or a year. However, lockers can also be made available for one-time use. New computerized on-demand systems allow users to check for available lockers or sign up for them online, enabling them to serve both regular and incidental system users. Lockers available for one-time use have the advantage of serving multiple users a week. Monthly rentals, by contrast, ensure renters that their own personal locker will always be available.

New federal security requirements mandating that locker contents be visible has highlighted a tradeoff between security and perceived safety. Though these measures are designed to increase station security, bicyclists tend to perceive the contents of their locker as less secure if they are visible. This change in federal policy is likely to make bicyclists more reluctant to use lockers.
Bicycle Racks in a Cage or Room

The security of a bicycle rack parking facility can be increased by enclosing it in a restricted access cage. The cage can be fitted with a gate and an electronic passcard access to provide unsupervised parking. Where there is a high demand for parking, several small cages provide more security than one larger one, as they reduce the number of people who have access to each cage. Parking inside an enclosed room is a more secure, but also more expensive option. With either type of enclosed facility, bicyclists must have a key or know a code prior to using the parking facilities, which is a barrier to incidental use.

The existing Bike Barn in the Kinesiology building basement includes shower and locker access and secure storage for 50 bicycles. Currently everyone who rents a space is guaranteed parking, and there is interest in expanding the facility to space available in the Auxiliary Kinesiology building. It is recommended that the existing spaces be rented on a 2:1 or even 3:1 basis rather than existing 1:1 ratio. Users of the facility have reported that at least 50% of the spaces are available daily. Increasing the ratio would generate additional revenue for the program and facilitate the expansion.

Additional long-term bicycle parking facilities and strategies include:

- **24 on-demand bike lockers near the Student Recreation Center.** Unlike these bike lockers available through Student Housing, these lockers would be checked out on an hourly or daily, “on-demand,” basis. This will ensure that the lockers are better utilized by a higher number of individuals.
- **Increase the cost of existing bike lockers, available through Student Housing, from $25 per semester to $35 per semester.** This will help generate funds to expand the program and provide more of an incentive for cyclists to utilize their lockers or vacate the lockers. Evaluate the need for further incremental price adjustments as need warrants.
- **Bicycle parking in parking garages as new facilities are constructed.** Approximately 16 bicycles can be parked in an area the size of one vehicle parking space using staked racks. The design of a
planned parking garage on the corner of Michigan and University includes a storage room that could house as many as 50 bikes.

**Eyes on the Bikes**

Supervision of a bicycle parking area greatly enhances security. However, supervision can be provided without an actual attendant. Placing parking in proximity to and within view of retail or other institutional activity can provide de facto supervision of the parking area. As a rule of thumb, locating bicycle parking near people adds security. With this in mind, a well-planned (and placed) parking facility can offer improved security and convenience for bicyclists at a fraction of the price of a full service bike depot.

**Enforcement**

Bicycles were observed being locked to any available piece of furniture or vegetation in all areas of campus. There is no existing policy for ticketing or removing improperly locked bicycles. Abandoned bicycles are removed at the end of the spring semester. Many campuses such as UCLA, Stanford and the University of Texas, have strict policies for removing abandoned or inoperable bicycles more frequently. Abandoned bicycles are problematic because they occupy valuable spaces and they are an eyesore. It is recommended that abandoned bicycles be impounded at the end of each month by BSU Transportation and Parking. In addition, Transportation and Parking officials can remove bicycles locked to surfaces other than university installed bike racks and bicycles believed to be inoperable at anytime. Inoperable bicycles are defined as those without air in the tires, those missing key components (seats, wheels, etc.), those in a state of considerable disrepair, and those that have been parked in the same location for more than a month. Each bicycle shall be tagged and officials shall remove abandoned bikes after allowing 72 hours for removal of the tag. Impounded bicycles should be stored for 90 days to provide bicycle owners the opportunity to reclaim their bicycle.

**Recommended Improvements Costs**

The following costs are for the reference of Boise State University staff members to use when planning route improvements. The costs are based on historical costs for specific elements, and specific costs may vary depending on market demand, size of project, and other factors. No engineering studies were performed in developing this plan. Most costs have been calculated 50 percent higher than unit calculations due to rapidly escalating construction costs.

<table>
<thead>
<tr>
<th>Typical Element Costs</th>
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<tbody>
<tr>
<td>Boise State University - Bicycle/Pedestrian Safety Master Plan</td>
<td>9/7/2009</td>
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Appendix A – Bicycle User Survey

Bicycle User Survey Route Preference
Appendix B – Meeting Summaries

Meeting Summaries
2/25/2009

Project: Boise State University Intra-Campus Transit Master Plan

Location: Parking Structure #2 Conference Room

Participants: Jared Everett (Project Manager, BSU)  
Doug Foye (Director, Transportation & Parking)  
James Maguire (Assoc. V.P. for Campus Planning & Facilities)  
Joe Gilpin (Senior Planner, Alta Planning + Design)  
Robin Wilcox (Senior Designer, Alta Planning + Design)

Bicycles and Pedestrians on Campus
- **Counts.** Bicycle counts were collected in late October, 2008; Counts will need to be projected to approximate better weather months; Counts will be ground-tested in early September.
- Bikes and pedestrians have not been a major consideration to this point.
- There has been some discussion of having a bicycle dismount zone around the Interactive Learning Center and over the central plaza.
- There is probably not a bicycle rack count available
- Bikes do not currently have to be registered on campus
- The Valley Ride buses carry bikes on front racks.

General Enrollment Trends
- Enrollment generally drops-off mid-September; more students are off-campus in the spring; bike use drops in the spring; Late August/Early September is the peak enrollment period and peak bike-use period. Reasons include students dropping the number of units carried, lower in-class attendance, and some dropouts.
- On-campus housing is currently approximately 2,000 students; housing will be doubled in the next five years; expansion of potential housing at church property at the bend south of University Drive is not public; Lincoln Avenue will be the focus of near-term expansion. Near-term expansion is 750 and 400 beds on two sites with another 1,000 in five years.
- 2% head count, 2.5% F.T.E.; about 20,000 current enrollment with expansion to 25,000 expected.

Campus Expansion Plans
- Traveling distance will expand over the next 10 years
• Review the plans for a Transit Center to the West of the Student Union Building (SUB). There will be a sheltered area for people to wait for buses and for buses to stack up to 2 deep and 2 wide (4 total).
• The parking garage at Lincoln and University will double in size in the very near future.
• Campus master plan encourages more river views and an increased relationship between campus and the river with building orientations changing as new construction or renovations allow.

Access Routes
• Beacon Street to Boise Avenue is a minor access route
• University Drive from Lincoln Avenue to Broadway Avenue is not currently classified by ACHD as a minor collector; therefore, campus could be a more pedestrian friendly environment if ACHD would be open to closing University Drive east of Lincoln Avenue as proposed in the ZGF 2008 Master Plan Update; Boise City Council is usually opposed to street closures
• The Greenway. An asphalt bikeway connects off-campus and is about 30 miles long; operated by the City’s Parks and Recreation department; Friendship bridge is campus-owned; property for the path is campus-owned (on campus); there are long-term plans to upgrade the facility to match the section between Capital Boulevard and Friendship bridge.

Areas to See
• Student Union Building (SUB). There is good parking available, but the environment doesn’t delineate that it’s o.k. to ride on the sidewalk to access those racks; the distance from the road encourages riding to the racks, but the environment is pedestrian oriented.
• Bike Barn. Located in the Kinesiology building; secure, indoor bike room with access to showers and lockers. There is a desire to expand this program to the Auxiliary Kinesiology building.

Plan Results
• An overview will help Staff make repairs strategically; they are interested in the condition of bicycle traffic now and how improvements should be made
• A well-defined bike route on campus with fingers branching off that to feed buildings and the bikeway serving as the through-way
• Bicycle Parking – BSU is looking for recommendations to decide where parking should be located, what types of racks work best, how secure parking is, and how many spaces should be provided
• Student housing would like to provide additional bike lockers on campus; they’re looking for recommendations about where to locate these lockers
• BSU is looking for: A master plan, transit center recommendations, analysis of dismount zone, analysis of pedestrian and bicycle segregation, safety analysis, enhancements, prioritization (about $200,000 available near-term), and future development recommendations.

End of Meeting Summary
Project: Boise State University Intra-Campus Transit Master Plan

Location: Student Union, Bergquist Lounge

Participants: Jared Everett (Project Manager, BSU)
- Doug Foye (Director, Transportation & Parking)
- JC Porter (Parking Office Manager)
- Felice O’Tero (BSU Housing)
- Kevin Israel (BSU Housing)
- Jenny Nigrini (BSU Campus Recreation)
- George Knight (BSU Philosophy Department, Boise Bicycle Congress)
- Joe Gilpin (Senior Planner, Alta Planning + Design)
- Robin Wilcox (Senior Designer, Alta Planning + Design)

Student Housing
- **Bike Lockers.** Lockers available outside of Barnes Towers Hall and Chaffee Hall. There are approximately 50 lockers for an estimated 300 bikes in the residence halls. Lockers rent for $25 a semester.
- **Bike Theft.** Has been a big problem.
- Students want to use their bikes to get around on campus. Students living in the residence halls go from their hall to class and back to the hall.
- **Parking.** Students have complained of having difficulty finding parking when they arrive at their classes. This is particularly a problem in the fall.
- Students come to school with intentions of biking, but give up and get frustrated because they can’t find parking after the first week.

Recreation
- Commuters are parking at the rec. center to take a shower. The facilities around the rec. center were designed to be short-term facilities, but the facilities are being used for long-term parking.
- The rec. center is the only place to take a shower besides the kinesiology building.
- Bicycle tubes, a tire air station, and workshops are available at the recreation center; the rec. center is interested in expanding the clinics and facilities. Bike repair clinics offered in the Fall and Spring at Rec Center.
Parking

- Beacon Street to Boise Avenue is a minor access route.
- Every time new vehicle parking is added, more space should be added for bikes.
- **Bike Barn.** Closes at 6pm and isn’t open on the weekends.
- People are interested in a secure place to park their bikes with or without showers available to commuters.
- Cruiser bikes are popular on campus and they take up more space and don’t fit easily into a lot of the racks.
- **Administration Building.** Vehicle parking will probably be reduced in the long term. The master plan calls for campus to become more of a place for people and less of a parking lot.

Areas to See

- **Administration Building Quad.** Mondays, Wednesdays, and Fridays between 11:30-11:40 is “prime”. Approximately 10,000 students are enrolled in Monday, Wednesday, Friday classes.

Recommendations

- **Dismount Zone.** This is a discussed every year after the semester starts.
- **University Drive.** There are no bike lanes and there’s parking on either side. A bike lane should be added.
- 10 years ago the recommendation was to widen sidewalks on the south side of campus; construction documents were completed, but the project stalled.
- **Bicycle and Pedestrian Bridges.** The master plan calls for 2 new bridges. Neither of these has been planned yet. A grant was applied for but not awarded for one of the bridges.
- **Broadway Bridge.** **Owned and controlled by IDT.** The sidewalks on either side are too narrow to accommodate bicycles and the traffic moves too fast for bikes to ride in the street. There is a bridge widening project in the planning stage. There’s no transition between the bridge and campus and no connection to The Greenway from the bridge.
- **Secure Parking.** Parking near the stadium may be used by commuters and people attending events.
- Juanita Street is a bike route.
- There is no direction connection between Joyce Street or Juanita Street and the Friendship Bridge.

Map Comments

- **Access Routes:**
  - **Greenway**
  - **University and Capitol.** Pedestrians must cross Capitol in three phases.
  - **Capitol.** Jaywalking between Royal Boulevard, Island Street and Campus Drive is prevalent.
  - **University Drive.** **Pedestrians cross at virtually every street that intersects University.** The areas near the student housing complex, across from the Administration Building, near the SUB, and between the Engineering buildings are the most frequently used crossings.
o **Broadway Avenue.** Heavily used on football game days, and moderately used by recreation and commuter traffic.

o **On Campus.** Between classes, the area between the Library and the ILC is very crowded. There is a desire line between Joyce Street and Friendship Bridge, but no direct route.

• **Conflict Zones:**
  o **General.** “There are many conflicts created or exacerbated by the perceived need for high-speed traverses of campus, given our current arrangement of class schedules and passing periods. Because of this fact, people will have difficulty complying with the dismount requirement unless there can be established some corridors attractive to bicycles and able to facilitate high-speed travel.”
  
  o **Administration Building Parking Lot.** “Current configuration of motor parking and narrow sidewalks creates conflict here. Also, there are some badly placed curb cuts.”

  o **Diploma-Brady Street Intersection.** “Present configuration of motorways/parking/sidewalks creates intermodal conflict here.”

  o **Greenway.** Blind corners between the Science/Nursing and Morrison Center and between the amphitheater and Taylor Halls.

  o **Library Parking Lot.** “Present Liberal Arts parking lot brings motors, pedestrians, bikes into conflict.”

  o **Dismount Zone.** Conflicts occur between the Mathematics and Business buildings, between the ILC and the Mathematics buildings, at the southwest corner of the library, and at the intersection of Friendship Bridge and Cesar Chavez Lane.

• **Bike Parking**
  o **General.** “There are a few places on campus where bike racks are located too close to walls. There are notable lacks of parking near activity sites such as Appleton Tennis Center, Bronco Stadium, Taco Bell Arena.” Possible ‘Valet’ bike parking discussed for major events.

  o **Bike Lockers.** Located at Barnes Towers Hall and near Chaffee Hall.

  o **Bike Barn.** Existing facility in the Kinesiology Building. There’s been a request to expand the facility into the Kinesiology Annex (Men’s locker room).

End of Meeting Summary
2/26/2009

**Project:** Boise State University Intra-Campus Transit Master Plan

**Location:** Mathematics Building

**Participants:**
- John Gardner (Assoc. VP, Energy Research, Policy & Campus Sustainability)
- Jared Everett (Project Manager, BSU)
- Joe Gilpin (Senior Planner, Alta Planning + Design)
- Robin Wilcox (Senior Designer, Alta Planning + Design)

**Background**
- *Master Plan.* Calls for eliminating all interior parking lots.
- *University Drive & Lincoln Ave.* The university has an influence over what happens on ACHD-owned right-of-way and can make recommendations. Mr. Everett is pursuing a MOU with ACHD for right-of-way improvements.
- *Administration Building.* Several people have been tossing the idea around of separating bike traffic either in front of (exterior) or behind (interior) the administration building. Reducing parking in front of the Administration Building is part of the long-term plan.
- Bike use is heavier early in the year.

**Attractors**
- *Off-Campus.* A discount grocery store is just to the north of Friendship Bridge and many students use the store who live on-campus or just to the south of campus.

**Parking**
- Differentiate between long-term bike parking and short term parking. There should be an area for long-term parking at the rec. center.

**Travel Patterns**
- Engineering to the Interactive Learning Center is the main flow of bicycle and pedestrian traffic during weekdays.
- Long term plan to create a pedestrian river walk along Cesar Chavez Lane
- Parking fees will increase; there may be opportunities to provide free parking to regular bike commuters; may issue combination bike parking permit with 4 free days parking permits. ‘Occasional Use Parking Permit’
- Looking to implement a Zip Car type of car sharing program on campus.

End of Meeting Summary
2/27/2009

**Project:** Boise State University Intra-Campus Transit Master Plan

**Location:** Student Union Building, Lookout Room

**Participants:**
- Doug Foye (Director, Transportation & Parking)
- JC Porter (Parking Office Manager)
- Joe Gilpin (Senior Planner, Alta Planning + Design)
- Robin Wilcox (Senior Designer, Alta Planning + Design)
- Attendees (approximately 10)

**Introduction (Doug Foye)**

**Background (Joe Gilpin)**
- Short introduction about the process and the discussions and observations Alta had from the previous two and a half days of campus tours and stakeholder meetings. Presentation of site opportunities and constraints.

**Question/Answer Session**
- Bike routes should be separate from pedestrian paths. Access in front of the business building is limited.
  - (JG) We will explore at least three different scenarios for what to do in the area between the Administration building and the Library where a majority of the conflicts occur.
- Will you be looking at access to and from campus as well?
  - (JG) Yes, as much as possible.
- Some students have been studying the opportunity for a bike check-out system as part of a student senior project.
- Geoff Harrison – Director of Outdoor Programs at Rec Center says he has space issues, his group handles $250,000 of equipment to rent to students. Bike equipment/facilities have little space at Rec center. Has considered a co-op membership to provide cheap access to repairs, lube, air and other amenities.

**Informal Discussion**
- Attendees were invited to discuss the maps with Alta staff members and to fill out information forms. (A summary of information input collected on these forms is attached.)

End of Meeting Summary
2/27/2009

Project: Boise State University Intra-Campus Transit Master Plan

Location: BSU Campus

RE: Bicycle/Pedestrian Safety Comment Sheet Responses

Parking

• Add more bike racks at rec. center.
• Install bike rack hubs at the major points of entry.
• Also, put racks in locations that divert riders from the center of campus.
• Add more racks south of the Mathematics Geosciences Building.
• I don’t ride in the rain, but having a covered place to park my bike might make me reconsider. I wouldn’t use indoor paid parking.
• There are usually plenty of places to park my bike and covered parking wouldn’t really help me. In bad weather I just walk.
• I’ve never had trouble finding a place to park my bike and it’s currently very convenient to bike on campus.
• Sometimes it’s hard to find parking near the Education building, but not around the Business building.
• I’ve never had trouble parking my bike when I get to class; well, maybe a little trouble in the fall.
• Engineering building moved racks to the back of the building. Too many people park sideways in the middle of the rack. The inverted U racks are better than the comb style racks.
• There need to be more racks in the summer.
• Put racks around trees…most people know how to use.
• Add an electric scooter rack.
• Good amount of parking; more parking at major buildings
• No real problems with parking; math building is hard to park (locked to pole); consider time to class.
• 9am is full, more racks
• Lots of stagnant bikes use it or lose it
• Always able to find parking
• Ladder style bike racks are not as friendly to lock to
Conflicts

- Conflict area at the intersection of the Appleton Tennis Center/Intramural Field/Kinesiology Annex.
- The library is a tight spot.
- Because traffic in the center part of campus is so heavy, I just hang out and wait to travel over to engineering from the business building until the change period is over.
- I have a lot of problems with walkers being distracted...I try to pass people and they suddenly turn in front of me.
- I don’t have a problem with bike and pedestrian conflicts and it’s usually easy to get around in the courtyard.
- I experience problems when classes get out.
- I sometimes worry about hitting pedestrians.
- The business building is a bad area
- Separate pedestrians and bikes; problems between Business and SUB; it’s not that bad
- There’s congestion through the space between Business/Economics buildings & Math Geoscience Building. Also in front of the library. Really larger cracks & untaken care of sidewalks make it difficult.
- I always have problems by the Math & Business building. Commuting to Education building there isn’t really a clear path, especially with the trees. There could be more bike paths at Chaffee on the non-parking lot side.
- No real problems; always able to find spot near pedestrians;
- Avoid when congested or slower; narrow areas
- Between class period is primary congestion period; during classes and before class congestion is not an issue

“The Quad”

- No bike zone in the “quad” area (Multipurpose Bldg. to Library/Business to Administration buildings)
- The greatest problem corridor exists on the interior from the Multipurpose classroom straight thru to the SUB. Eliminate wheels on the interior completely.
- The problem is the center sidewalk through campus. The sidewalk needs to be marked to control the flow of traffic and to separate bikes from pedestrians.
- Closing the interior of campus would be inconvenient.
- Closing the interior portion of campus would be inconvenient.
- Closing the center of campus would be inconvenient and make me late to class.
- A special bike path through the quad is a bad idea.
- Bike preferred; pedestrian preferred (quad).
- Quad congested; no issues with parking on campus; walk bike between classes; satisfied with system
- Avoid quad or clusters; walk instead; would like bike route through class;
- Don’t want to walk bike instead
- Avoids mall

University Drive

- Need proper bike lanes on University Drive; work with ACHD to convert to three lanes with common middle turn lane and add bike lanes to reduce middle campus congestion.
• Make University Drive between Lincoln and Broadway a no pass zone with bikes being treated as cars.
• Bike lane on University Drive is good;
• Bike lanes on University Drive would be good.

Access
• I access campus from Friendship Bridge. I ride my bike to campus and then walk once I'm here.
• I ride from home to campus and normally lock my bike and walk when I'm on campus. It's about 4 miles per day.
• I put my bike on the back of my car and ride while I'm on campus from the parking lot behind the garage. I usually go to the engineering and multipurpose classrooms.
• I put my bike in my truck and ride from Meridian and between Bronco Circle and the Education building.
• I ride from a friend's house to campus and take my bike with me from building to building during the day.
• I ride on the interior of campus only and usually have conflicts near the SUB. I park my bike in a friend's car at the dorms. I used to go downtown from campus, but now I think it's too far.
• I come from the outlet mall on Federal (good bike path); Protest is a bad bike path.
• I use a general permit and keep my scooter in my car. ($30 razor)
• Friendship Bridge is very narrow and steep

Scooters/Skateboards
• Most people on bikes and scooters go too fast.
• The Long Boarding people don't follow the “No Skateboarding” signs.
• Add a scooter/skateboard path; they hit people all the time.
• Paint a red scooter path.
• The Greenbelt is a nice place to ride as long as people move over so you can get by. (I'm a skateboarder.)

Miscellaneous
• Fund bicycle maintenance program; outdoor program has a small one that might be able to be funded and grow.
• My name is Tina Elayer and we have been working on this issue since the Fall '08 semester. I think it would be very beneficial to all of us if we can meet up sometime soon? Here is my contact info: cell, (208) 908-9064; email, tinaelayer@yahoo.com
• Try to no increase the amount of Hardscape – keeping low impact development in mind for pre-construction stormwater infiltration rates. 😊
• 2009 Environmental Senior Project; Ivan Kosorok, (406) 672-9765, ivankosorok@u.boisestate.edu
• How are we going to be able to separate the bike traffic and pedestrian traffic? Most people take the path of least resistance.
• I never had a problem with theft and normally leave my hat and gloves in a basket on my bike, but they were recently stolen, so I'm reconsidering that.
• The guy who fixes bikes at the rec. center is cool.
• Add extra bike lanes.
• Don’t spend money on a bike path; not a danger.
• As a pedestrian I’m scared of getting hit by bikes from behind. There should be a special pass for bikes. Add a fast lane and slow lane.
• A new separated bike path won’t work.
• No real complaints.
• Congested areas; lots of people;
• Too much is some problems;
• Rented loaner bikes would be nice for bus riders & drivers to no be car on campus
• Rec. Center and membership only option for changing and shower (very expensive) the need for towels is an issue everywhere else.
• Occasional huts accommodation for bikers would be nice without expensive parking or permits.
• Stacey Donohue, (435) 260-8992 (please feel free to call me for any clarification, thank you). staceydonohue@boisestate.edu
  o The main issue I encounter twice every day is the absence of a dedicated lane for bikes on University Drive. I ride to campus from the bench, so the Greenbelt is not a useful alternative for me. Car traffic along University is heavy, fast moving, and the multiple traffic lights produces a constant car-bike game of leapfrog. I think a good solution is to narrow the car lanes and stripe-in a bike lane. The narrow car lanes would handle the same amount of traffic, but would slow the car speed. A dedicated bike lane would remind drivers to look for bikes and keep bikes in a predictable area. Bikes would be less tempted to sue the sidewalks, which disrupts pedestrians and makes bike movements appear quickly and unexpectedly from a drivers’ perspective.
  o Problem: outdated bike racks at the library. These racks don’t allow riders with u-locks to lock the frame of the bike.
  o Solution: swap the outdated racks at the library with the new racks in front of the SUB. The SUB racks never contain more than 3 bikes although there is space for 50.
  o Thanks for your attention to bike/pedestrian traffic on campus!

End of Summary
2/27/2009

Project: Boise State University Intra-Campus Transit Master Plan

Location: Student Union Building, Lookout Room

Participants: Doug Foye (Director, Transportation & Parking)
JC Porter (Parking Office Manager)
John Gardner (Assoc. VP, Energy Research, Policy & Campus Sustainability)
George Knight (BSU Philosophy Department, Boise Bicycle Congress)
Joe Gilpin (Senior Planner, Alta Planning + Design)
Robin Wilcox (Senior Designer, Alta Planning + Design)

Introduction

- A summary of fieldwork and findings from the previous day (February 26th) was provided.

Mapping Exercise  (A photo of this map is attached.)
- Attendees were asked to work as a team to generate a map identifying major and minor bike/ped routes to and through campus, frequency of use at a gross, and vehicle/pedestrian/bicyclist conflict zones. (A photo of this map is attached.)

Opportunities and Constraints Map  (A photo of this map is attached.)
- Alta Planning + Design prepared an opportunities and constraints map based on stakeholder interviews, campus observations and background research. The map identified: major campus barriers (Boise River, Broadway, Capitol, and University), covered bicycle parking locations, major vehicular parking facilities, locations of bicycle/pedestrian/other counts, conflict areas, major pedestrian and bicycle routes, and major attractors (SUB, ILC, residence halls, classroom buildings, etc.).

Input Received

- The second parking garage will be built at Lincoln Avenue and University Drive; retail space will be located on the ground floor and there will probably be an area for a bike shop or other facility.
- Most bicycle commuters use the north side of the river as a commute route rather than using the side nearest campus
- University Drive is a major bus route and there is concern about possible bicycle/bus conflicts if bike lanes are added to University.
- The Greenway is closed for several days at a time during the year because of flooding.

End of Meeting Summary
EXISTING CONDITIONS MAPPING CHARETTE FEBRUARY 27TH, 2009 ALTA PRODUCED MAP
Appendix C – Education Programs

Bike Diversion Program - Bike Safety Presentations

Programs to attend a bicycle education class in lieu of a fine for a bicycle citation have been implemented by several universities across the country. One such program at Stanford University allows those who have received citations to attend the class within 30 days of the date the citation was issued and have the citation dismissed. In these diversion courses students learn how to become safe and predictable cyclists. They are educated to understand their rights to the road as cyclists, as well as the proper cycling etiquette and behavior that will keep both themselves and others safe on the roadway.

Encouragement

Alternative Transportation Events

Universities around the country use events such as Bike-to-Campus Day to promote non-motorized transportation choices. Coordinating days, weeks and even months that specifically promote alternative transportation options is a good method of increasing the number of people who try alternatives modes to travel to campus. These events also serve a dual purpose, by helping to increase general awareness of bicycles and pedestrians on the roadway and campus safety for all users is improved.

Commuter Buddy Programs

Commuter Buddy Programs pair first time cyclists with experienced cyclists. The experienced cyclists help beginners plan their route, answer questions about cycling gear, use parking facilities, and pair bicycles with transit for longer trips. With this style program new bicycle commuters learn the proper techniques for becoming predictable and safe cyclists. Through this educational activity first time cyclists can be taught the most effective ways to navigate in situations they will experience daily, from riding in mixed traffic to sharing paths with pedestrians. Understanding how to behave appropriately in these situations keeps everyone safe, both on the roadway and on campus. Those who volunteer as a Commute Buddy may receive some type of gift certificate or other incentive in exchange for their time.

Incentive Programs

Occasionally even the most dedicated alternative transportation users have the need to drive a vehicle to campus. Alternative Commuter parking permits allow users to purchase limited use parking permits at discounted rates as an alternative to full price permits. In most instances, these permits are day permits that are purchased in limited numbers (for example, twenty four per year at UC Davis).