EXECUTIVE SUMMARY

The Facilities and Environment (F&E) Working Group was charged with evaluating and benchmarking the current facilities at NIU in terms of technology, accessibility, energy and aesthetics. With plans to build and grow over the next ten years, the group was challenged to assess where NIU is now and what it must do to not only plan for growth, but to maintain and develop its existing facilities.

The F&E group identified six key areas that encompass priorities for the campus facilities and environment including beautification, signage and exterior communication, accessibility, sustainability, technology, and deferred maintenance. The group physically toured NIU’s campus and Illinois State University’s campus, and participated in a virtual tour of the UIC, Western Michigan, Miami of Ohio, Ohio University, and Bowling Green campuses. The benchmarks, justification, and recommendations are based on the tours, additional primary and secondary research, and data obtained from the comparable school list.

Overall, it is apparent that state budget challenges have impacted all public institutions that were reviewed. All of them had facilities and campus environment issues of which they were not proud. As a team, though, the F&E Working Group felt that NIU does not compare favorably to peer institutions with respect to the six priority areas.

Specific benchmark goals were established as follows:

BEAUTIFICATION

NIU’s campus appearance is important in attracting and retaining students, faculty, staff, alumni donations, and campus recruiters. The appearance is reflected in buildings (exterior and interior); campus entrances; maintenance of walkways, pathways and sidewalks; and maintenance of landscaped and lawn areas. An attractive, well-maintained campus infers quality and reflects a sense of care and investment in the institution.

First impressions are critical in attracting and keeping key stakeholders. Benchmark research reveals that the campus is generally viewed as, at best, neutral or acceptable. Only a few areas are considered favorably; most of these are buildings added in recent years. Most notable is that the student-centered areas (residence
halls, recreation center, DuSable classroom area, Holmes Student Center) are rated the lowest.

When compared to Illinois State University, a major competitor and campus that has invested in its campus appearance, NIU invests far less to maintain and improve its campus appearance. The F&E Working Group recommends increasing commitment to campus beautification with increased investment in grounds workers and budget. It also strongly recommends investing an individual with strong landscape design experience (and large property management). Tradesmen will also be needed for campus beautification efforts.

SIGNAGE AND EXTERIOR COMMUNICATION

Developing a baseline study of NIU’s current signage system and gathering data from competitor institutions on whether the institution has such things as signage guidelines and a master plan will allow NIU to benchmark its progress in effective signage.

The F&E Working Group found NIU’s current signage to be industrial and outdated in appearance, and ineffective as a means of finding one’s way around campus. Peer institutions have, in general, developed guidelines and updated signage on campus.

As a means of achieving this goal, we recommend that NIU develop and implement a comprehensive institutional exterior communication plan (particularly wayfinding and building identification signage) with guidelines and standards for placement and design. A phased-in implementation approach will allow for budget allocations to be spread over 10 years.

ACCESSIBILITY

Access is not only a legal compliance issue; it is an issue of good design and of sustainability. A proactive, good design can reduce the need for retroactive adjustments and alterations. Students, faculty, staff and visitors at NIU expect and should be afforded the opportunity to engage and participate with campus-wide activities inside and outside of the classroom. NIU’s campus meets ADA compliance, but the F&E group recommends that NIU commit to ensuring a safe and welcoming environment to all its constituents, above and beyond what is required by law. This will be implemented, in part, with recommendations made for signage, beautification (sidewalk/walkway maintenance), deferred maintenance, and sustainability.
SUSTAINABILITY
The traditional definition of sustainability calls for policies and strategies that meet society’s present needs without compromising the ability of future generations to meet their own needs. Sustainability includes the reduction of materials consumed, increasing the amount of waste moved from the trash stream to the recycling stream, and the reuse of material where possible.

The F&E group found that NIU is the only peer institution without a sustainability coordinator and without a committed emphasis on recycling. NIU has been innovating in some sustainability efforts, but lags behind competitor institutions in other areas. Research revealed that in many cases, sustainable choices save money in the long run, even if the upfront investment is more.

TECHNOLOGY
The F&E group identified wireless access and cell coverage as key technology needs and priorities for NIU. Students, faculty, staff, and guests have come to expect and depend on access to WIFI and cellular systems, and NIU has less than 15% of its campus with WIFI access and less than 100% cellular coverage. The group’s benchmark research revealed that NIU is significantly behind its peer institutions. It is imperative that NIU catch up earlier than 2020 and the working group has targeted 2015 to meet our goals. This goal will be accomplished by significant efforts and reallocation within housing, the colleges and ITS. This effort also requires a base budget increase of $70,000 to support general purpose areas.

DEFERRED MAINTENANCE
The most appropriate quantitative unit of measure for deferred maintenance is the Facility Condition Index (FCI), which measures the cost of deferred maintenance versus replacement cost of the building or system. As part of the State Wide Space Survey (SWSS), NIU established and reported their FCI to the State in 2009 as $378,000,000. Using space and somewhat arbitrary assignments of building condition is a poor way to have a true assessment of campus deferred maintenance.

It is more likely that NIU has significantly more deferred maintenance based on findings from peer institutions that have quantified their deficiencies on a building-by-building basis. The working group recommends that NIU spend significant efforts to attain an accurate understanding of the campus deferred maintenance level on a building-by-building basis. This also includes assessing systems that are not specific to buildings (e.g., steam tunnels). This process will take at least two years unless made a high priority.
There are several steps NIU should take while this effort is in process. Adopting a policy of “No Net New Space” should be seriously considered. Several universities are taking this position and there is good merit for doing so. On the budgetary front, NIU could adopt the APPA budgetary standard for addressing deferred maintenance, which is to appropriate a total budget allocation for routine maintenance and capital renewal in the range of two to four percent of the aggregate current replacement value of our facilities.

MEMBERSHIP

- Jeffrey Daurer, Director, Capital Budget and Space Planning, Co-Chair
- Denise Schoenbachler, Dean, College of Business, Co-Chair
- Brian Becker, Assistant Director, Outreach Operations
- Kathryn Buettner, Vice President, University Relations
- Michael Cahill, student
- Walter Czerniak, Associate Vice President, Information Technology Services
- Bill Finucane, Director, Transportation
- Lara Luetkehans, Chair, Educational Technology, Research, and Assessment
- Roger Maas, Associate Director for Budget and Facilities, Provost’s Office
- Jim Murphy, Campus Planning Coordinator
- Robert Poggensee, Maintenance Equipment Operator, Grounds
- Lee Sido, Associate Professor, Sculpture
- Mallory Simpson, President and CEO, NIU Foundation
- Christian Spears, Senior Associate Athletics Director for Administration
- Melanie Thompson, Director, Access-Ability Resources
ISSUE

Beautification

INDICATOR

• Number of FTE grounds workers
• Number of acres maintained
• Number of FTE grounds works/acre
• Acres/grounds worker
• Summer help added
• Total help/per acre
• Student workers for grounds
• Annual grounds budget (non personnel)
• Budget/acre
• Concrete replacement budget (sidewalks, pathways)
• Annuals planted
• Annuals/acre

Additionally, internal benchmarks were set using results from market research that assesses perceptions of various stakeholders and a campus video/photo diary (under development). (See Images 2.1-2.6 as examples of campus beautification concerns.)

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS

Comparable measures are reported for NIU and Illinois State University. The information in Table 2.1 was collected during a visit to ISU. ISU is very similar to NIU in its budget/financial situation and is a primary competitor in the student marketplace. ISU has also made a consistent and strategic investment in its campus appearance, and that investment was quite evident on a campus visit.

Future access to the Association of Physical Plant Administrators (APPA) benchmarking data may help assess other competitive schools. NIU was not a member of APPA last year and did not participate in the APPA benchmarking survey where some benchmarking data could be obtained. NIU has renewed its membership and we recommend participating in the survey in order to obtain the desired benchmarking information in the future.
Table 2.1
In spring 2011, a survey was conducted that was designed to measure student, faculty/staff, and alumni perceptions of the NIU landscape and scenic beauty. Internal benchmarks are necessary because benchmarking against other institutions is very difficult as institutions may or may not have done a survey of perceptions of their campus. Moreover, NIU’s goal should be to improve perceptions of NIU’s campus, not to have better perceptions than other campuses. In particular, respondents were asked about their perceptions of exteriors and interiors of buildings, grounds appearance, major landscaped areas, residence halls, and entrances to campus. A total of 1,692 respondents took the survey with 1,361 respondents indicating their status. Of those indicating status, 51.6% are current students, 41.6% are faculty/staff, and 6.8% are alumni. The working group wanted to assess the perceptions of prospective students and their families, but given concerns with perceptions, the team was advised that this would potentially highlight negative perceptions with prospective students and families about campus appearance.

Survey results are summarized as follows:

- The five major recommendations by respondents to improve a building or campus landscape are: (1) maintain the current landscape, (2) plant flowers and trees around the campus to add color, (3) clean the exterior look of buildings, primarily those that have been around for many years, (4) have less concrete in general, (5) renovate/remodel all buildings, especially the bathrooms in each and begin the renovations in Stevens Hall. More general recommendations include:
install more outside lighting to add safety for the general public; fix leaking roofing and begin installing green roofs; add a quad; add more fountains, benches, and tables; replace current signage and add more signage around campus.

• A general consensus emerged regarding the need to improve residence halls, including a complete remodel of both the interior and exterior with more comfortable furniture both in common areas and sleeping quarters. In addition, respondents would like to see air-conditioning, new carpet, and elevators as well as a good, thorough cleaning.

• Respondents believed that the Student Recreation Center needs updating as well. Suggestions include: updating the work-out machines, improving the maintenance of machines to increase product life, and fixing the poor condition of the track. Overall, respondents wanted to see a renovation to the outdated recreation center.

• The following buildings were noted by respondents as the top 10 buildings in appearance and comfort: Altgeld Hall, Barsema Hall, Founders Memorial Library, Davis Hall, Barsema Alumni and Visitors Center, Engineering Building, La Tourette Hall, Music Building, Holmes Student Center, and Swen Parson Hall.

• The following places were noted by respondents as their favorite place on campus to relax: East Lagoon, Holmes Student Center, Founders Memorial Library, area behind Davis Hall, Barsema Hall, Altgeld Hall Courtyard, MLK Commons, Neptune Central, Dad’s Pond, and Student Recreation Center.

• Upon entering DeKalb, the majority of respondents’ first impressions included the following statements: boring, empty, cornfields, old/dirty buildings, industrial, and lack of NIU pride. The majority said that the south entrance from I-88 was attractive and had good landscaping. There were many complaints about Annie Glidden Road and Lincoln Highway intersection because it is dirty, messy, and deteriorated.

• Upon entering NIU, a majority believed that the campus is too spread out and unplanned. The entrance at the gates of Castle Drive is described as beautiful. All other entrances were described as unattractive or ignored. Poorly maintained landscaping, building maintenance, and sidewalk repair were three issues mentioned repeatedly in the survey.

• The majority of respondents enter NIU from the north via Annie Glidden Road or south via exit from I-88 to Annie Glidden Road.

• The majority of respondents agree that one can easily tell when they have reached the NIU campus.
• In regards to signage, the majority of respondents found DeKalb city signage and NIU off-campus signage to be mostly favorable. The respondents also found that NIU on-campus signage was mostly unfavorable.

• Respondents noted the exterior structural appearance of the following campus buildings as favorable: Barsema Hall, Engineering Building, Altgeld Hall, Barsema Alumni and Visitors Center, Yordon Center, and the Convocation Center. The following campus building exteriors were rated as unfavorable: Wirtz Hall, Nursing Building, Reavis Hall, Watson Hall, Gable Hall, Graham Hall, Lincoln Hall, Douglas Hall, Stevens Building, and Grant Hall. The following campus building exteriors received mixed reviews with roughly equal percentages assessing them as favorable and unfavorable: Neptune West, East, North, and Central; DuSable Hall; Montgomery Hall; and Anderson Hall.

• Respondents evaluated campus buildings’ level of comfort in regard to its interior. The following buildings were rated extremely comfortable: Barsema Hall, Yordon Center, Altgeld Hall, and Barsema Alumni and Visitors Center. The following campus buildings were comfortable: Engineering Building, Music Building, Faraday Hall, Jack Arends Hall, Wirtz Hall, La Tourette Hall, Nursing Building, Founders Memorial Library, Holmes Student Center, Student Recreation Center, Neptune Central, Stevenson Hall, Huskie Stadium, and the Convocation Center. The following campus buildings were considered uncomfortable: Montgomery Hall, Stevens Building, Graham Hall, Gable Hall, Watson Hall, Reavis Hall, Douglas Hall, Lincoln Hall, and Grant Hall.

• Respondents were asked to assess the attractiveness of campus areas. Those considered attractive are: East Lagoon, Artwork, Martin Luther King Commons, Central Park, Dad’s Pond, Fountains and Park (East of Davis Hall), and Park (West of Music Building); the following are viewed as unattractive: Lorusso Lagoon and Holmes Student Center Fountain.

• Questions were also posed regarding accessibility. Respondents found Stevenson Hall, DuSable Hall, and Barsema Hall as the most accessible for students with disabilities. Accessibility improvements mentioned include: more power doors to minimize the need to find accessible entrances, Huskie Bus at DuSable Hall is very crowded with students making it difficult to board, and move offices that students with disabilities frequent, such as CAAR, to the first floor. Other comments regarding accessibility included Lincoln and Douglas Halls’
lack of elevators, the bowling alley does not have ramps for people with disabilities, and the basement of the Holmes Student Center is not easily accessible.

GOAL
By 2020, perceptions of NIU campus appearance across multiple stakeholders should be significantly higher than the baseline research in 2011. The improvements in perceptions should be most noticeable in areas where NIU chooses to focus resources to improve campus appearance, particularly student-centric areas.

By 2020, the video/photo tour of campus should show clear improvements in appearance and care of buildings, landscaping, and grounds maintenance. NIU’s investment in campus appearance (grounds workers and/or budget for grounds) should meet or exceed the investment by ISU by this time as well.

JUSTIFICATION FOR THE GOAL
In many situations, “perception is reality.” There is much anecdotal discussion about the NIU campus appearance and the need to focus more on beautification efforts. Simply put, beautification is a recruitment and retention tool.

SUGGESTIONS FOR HOW NIU MEETS THE GOAL
Campus appearance must become a higher priority. Improving campus appearance will take a sustained commitment and investment in grounds personnel as well as supplies and equipment. NIU needs an overall grounds plan that includes landscaping, concrete/pathway replacement, campus entrances, and general maintenance plan. The grounds plan should be driven by appearance/maintenance balance. That is, it should maximize the appearance of NIU’s campus with consideration of the long-term maintenance needs to create that appearance.

NIU should invest in all entrances (e.g., Annie Glidden Road entrance) so visitors know when they are at NIU and that the first impression is very favorable. This may involve partnering with the City of DeKalb. Making use of students and student organizations for “labor” for spring and fall planting would also be beneficial. Finally, it is important to engage in APPA (organization for physical plant professionals) to get access to benchmarking, ideas, and strategies.

ORGANIZATIONAL OR POLICY CHANGES REQUIRED
Beautification of campus may need to be a higher priority. A significant and sustained commitment to updating/investing in campus appearance is a must. It would be beneficial to hire individuals with a strong background in landscape
design who also have a vision for the campus as well as an understanding of budget constraints for maintenance. Campus appearance must be a holistic plan.

BUDGETARY CONSIDERATIONS
This strategy will require allocation of budget to concrete/walkway replacement or additions each year. Allocation of budget must also go towards landscaping each year with an increased investment in grounds workers.

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE
Beautification strategies are already in existence within plans for new residence hall areas. Benchmarking data is also already available through the APPA organization. However, NIU must participate in the annual benchmarking survey in order to get access to data for comparison.

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL
• Finance and Facilities
• University Relations
ISSUE
Signage and exterior communication

INDICATOR
Does the institution have:
• a campus master plan
• signage guidelines
• an accessibility map
• a virtual tour on the web

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS
Information for Table 2.2 has been obtained through website research regarding the existence of planning guidelines and standards and user aids at the benchmark institutions.

Additionally, the working group believes that a baseline study should be done, including photographic documentation, to answer the following questions:

- At how many key intersections on campus are there directional signs indicating which way to turn to get to a certain building?
- At how many frequently used building entrances are there easily visible signs identifying the building and handicap accessible entrances?
- What user-friendly technology applications exist as a supplement to physical signage?
- What feedback can we get from focus groups about the ease of getting around our campus and the visual appeal (or lack thereof) of our signage?
GOAL

By 2020, the university should replace its current signage and develop a new campus master plan for wayfinding that considers the results of the internal baseline study.

JUSTIFICATION FOR THE GOAL

Signage on campus is inadequate for students and other individuals to easily find their way around campus, by car or on foot, and to identify buildings and handicap accessible entrances. Also, the existing campus visual standard for exterior signage is extremely outdated and unattractive. It conveys a cold, industrial image that is inconsistent with our engaging, learning community (See Image 2.7 as an example of signage and exterior communication concerns). The absence of comprehensive institutional planning and management relative to signage has contributed to these issues. The result is inconsistent, inconvenient and unattractive signage. These issues are impediments to the successful recruitment of NIU students and the attraction of visitors to the campus for academic, athletic, cultural and social activities.

SUGGESTIONS FOR HOW NIU MEETS THE GOAL

We propose that NIU commit to a new signage system to be accomplished over a period of years. This will involve the development and implementation of a comprehensive, institutional policy, plan, and management tool for exterior communication standards and guidelines to include signs, banners, commemorative and memorial plaques and temporary signs, building identification and site/campus boundary delineation/identification elements (logo/branding), and various other forms of exterior displays on campus.

We recommend that a new visual identity system be developed for campus signage that is more attractive and reflective of NIU today. It should also be consistent with the university’s new visual identity system (logo/branding). The guidelines should standardize the physical features and support graphics to communicate information in a concise manner to minimize confusion. The location of exterior communication signs should create the best building presentation and blend in with an appropriate supportive landscape.

This plan could be incorporated into a future comprehensive Campus/University Master Plan for the placement and appearance of identification, directional, and thematic site elements unifying our three sub-campuses (central, north and west) and various offsite campuses.
We recommend that signage be designed in a way that allows for alterations without replacing the entire sign when the functions/occupants of the building change. We recommend that the signage program start with wayfinding signs, since they are significantly lacking and are most critical to assisting students, parents, and other visitors in having a pleasant experience on campus.

Next, we recommend that new building identification signage be placed first at the main entrances and handicap accessible entrances of buildings that are most heavily used by students. The next phase would include placement of building identification signage at the main entrances of other campus facilities over time.

The last phase would involve adding building identification signage at secondary entrances of the buildings that are most heavily used by students and where students access the building from more than one significant entrance. Based on the comprehensive plan NIU must develop/establish a comprehensive construction budget with yearly cost escalation allowances to accommodate a 10-year implementation strategy for signage replacement and additions.

ORGANIZATIONAL OR POLICY CHANGES REQUIRED

In addition to the new policy proposed above, there needs to be clarity about ultimate authority and responsibility for implementation while also recognizing that many units on campus should be involved in the process of developing the comprehensive plan and standards.

BUDGETARY CONSIDERATIONS

NIU has 121 total building sites on central campus and at its satellite campuses in Hoffman Estates, Naperville, Rockford and the Lorado Taft Field Campus. Considering only exterior signage, a modest budget of $15,000 per building site would provide NIU with a consistent building wayfinding system that is reasonable but not extravagant. A total budget of $1,815,000 established and allocated over three years would accomplish the goals for appropriate signage.

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE

N/A. However, an outdated set of design specifications exists.

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL

The group ultimately responsible is Finance and Facilities (Architectural Engineering), but the following should be collaborators in the development of a comprehensive plan (in no particular order): University Relations (designers), Student Affairs, Access-Ability Resources, IT (relative to technology applications), Campus Parking Services, Conference Services, Physical Plant, and Grounds Department.
Image 2.7
ISSUE
Accessibility

INDICATOR
- Percentage of students with disabilities
- Results from a benchmark focus group

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS
Quantifying access is difficult, in part, because competitors are typically unwilling to acknowledge that they are out of compliance or to acknowledge areas in which they are struggling to provide access. The data for Table 2.3 was gathered to provide a comparison of the number of students with disabilities registered at competitor institutions in comparison to NIU. Not all competitors were willing to share their number of students with disabilities registered, so data is provided from some non-competitor institutions as well.

<table>
<thead>
<tr>
<th>Institution</th>
<th>SWD</th>
<th>Enrollment</th>
<th>% of SWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball State</td>
<td>600</td>
<td>22,000</td>
<td>2.7%</td>
</tr>
<tr>
<td>Bowling Green State</td>
<td>550</td>
<td>22,000</td>
<td>2.5%</td>
</tr>
<tr>
<td>Buffalo</td>
<td>500</td>
<td>29,000</td>
<td>1.7%</td>
</tr>
<tr>
<td>Illinois – Urbana-Campaign</td>
<td>1,000</td>
<td>42,000</td>
<td>2.4%</td>
</tr>
<tr>
<td>Kent State</td>
<td>1,000</td>
<td>24,000</td>
<td>4.2%</td>
</tr>
<tr>
<td>NIU</td>
<td>700</td>
<td>24,400</td>
<td>2.9%</td>
</tr>
<tr>
<td>Ohio</td>
<td>2,000</td>
<td>32,400</td>
<td>6.2%</td>
</tr>
<tr>
<td>Western Michigan</td>
<td>500</td>
<td>25,000</td>
<td>2.0%</td>
</tr>
<tr>
<td>Wisconsin – Madison</td>
<td>900</td>
<td>43,000</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Table 2.3

While the National Center for Education Statistics states that approximately 11% of college students have disabilities, the numbers of students registered as having a disability consistently do not reflect this national average. This is in part because not all students with disabilities need accommodations, just as not all employees with disabilities need accommodations. Others argue, though, that the low percentage of persons with disabilities that disclose having a disability is a reflection of perception of access or inclusion. As the number of students with disabilities at NIU has increased by 48% in the past two years, there appears to be an increasing number of students that view NIU as addressing access and as being inclusive of persons with disabilities.
Focus groups were held with students with disabilities in the spring of 2011. Students stated that strengths of access and inclusion at NIU include the Freedom Mobile, the Center for Access-Ability Resources, some residence halls, and some specialty computer labs available in individual colleges. Students stated that some of the challenges of access and inclusion at NIU include curb cuts that are broken or have gaps in them, limited power doors (automatic openers), classroom furniture, and the location of some offices that students with disabilities frequent (e.g., Center for Access-Ability Resources, Commuter and Non-Traditional Student Services) being in locations that are not very accessible. (See Images 2.8 and 2.9 as examples of accessibility concerns).

Additionally, students expressed that sometimes they do not feel safe on campus because the accessible entrances to some buildings are in the back of the building where few people go and/or the entrances are not well lit at night. Students also expressed that when they go into computer labs where one version of adaptive technology is available and that version is being used, the students’ access is limited and negatively impacts their engagement at NIU.

GOAL

To retain and increase the number of persons with disabilities at NIU, it is proposed that by 2020, NIU will have established a formalized process to address institution-wide access and inclusion, including universal design and sustainability, into the issues and goals identified through the Vision 2020 process. Through doing so, NIU will become a leader in access and inclusion of persons with disabilities including students, faculty, staff and guests.

JUSTIFICATION FOR THE GOAL

Students, faculty, staff and visitors at NIU expect and should be afforded the opportunity to engage and participate in campus-wide activities inside and outside of the classroom. Accessibility is an issue that crosses many components of Vision 2020.

Access is not only a legal compliance issue; it is an issue of good design and of sustainability. A proactive, good design can reduce the need for retroactive adjustments and alterations. Reactive responses to address access cost NIU time and money. To remain fiscally responsible, NIU should incorporate components of sustainability along with good design that decrease barriers through proactive planning. In doing so, NIU will decrease the number of retroactive accommodations and alternations needed, and increase the recruitment and retention of students, faculty, and staff with disabilities.
SUGGESTIONS FOR HOW NIU MEETS THE GOAL

To meet this goal, NIU must broaden its commitment to creating an accessible, inclusive, sustainable environment beyond students, to include faculty, staff and guests. Collaborations should be established or strengthened between Finance and Facilities, Human Resources, Academic Affairs, and Access-Ability Resources. Examples of how access and inclusion can be addressed at an institutional level include implementing components of Universal Design in the recommendations of the Baccalaureate Review process, access information on signage across campus (see the earlier discussion from this working group on this subject), and adaptive technology in all “open” computer labs.

ORGANIZATIONAL OR POLICY CHANGES REQUIRED

Policy should be drafted that addresses access and inclusion at an institutional level.

BUDGETARY CONSIDERATIONS

Drafting policy, identifying key partners for collaboration, and incorporating universal design on the front end would not cost anything. Additionally, increasing access and inclusion could be addressed in a fiscally responsible manner, such as the provision of maps online for buildings and parking; information about accessible entrances, bathrooms, and routes across campus; and through providing access information on signage across campus. Onetime costs would be incurred for increasing access across campus for alterations of buildings/projects that do not meet ADA compliance and improvements for buildings/projects that meet ADA compliance but are not inclusive (such as automatic door openers).

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE

N/A

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL

It would take an institutional commitment to implement this goal, with identified key players in Finance and Facilities, the Task Force on the Sustainable Campus Environment, the Center for Access-Ability Resources, and Human Resources.
Image 2.8

Image 2.9
ISSUE

Sustainability (environment)

The traditional definition of sustainability calls for policies and strategies that meet society’s present needs without compromising the ability of future generations to meet their own needs. Sustainability includes the reduction of materials consumed, increasing the amount of waste moved from the trash stream to the recycling stream, and the reuse of material where possible.

INDICATOR

Does the institution:
- have a sustainability coordinator
- use hybrids and alternative fuels
- emphasize recycling

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS

See Table 2.4.

GOAL

NIU should become a leader in sustainability issues across Midwestern universities, particularly our traditional competitors. This would include reduction in the consumption of energy, increased use of environmentally friendly products, and an increase in percent of waste recycled.

JUSTIFICATION FOR THE GOAL

Common to both public policy and business perspectives is recognition of the need to support a growing economy while reducing the social and economic costs of economic growth. Sustainable development can be facilitated by policies that integrate environmental, economic, and social values in decision making. From a business perspective, sustainable development is accomplished by capturing system dynamics, building resilient and adaptive

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sustainability Coordinator</th>
<th>Hybrids &amp; Alt. Fuels Used</th>
<th>Emphasis On Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball State</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Bowling Green State</td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Buffalo</td>
<td>●</td>
<td>●</td>
<td>–</td>
</tr>
<tr>
<td>Eastern Michigan</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Illinois – Urbana-Champaign</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Illinois State</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>NIU</td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Ohio</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Western Michigan</td>
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<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Table 2.4
systems, and anticipating and managing variability and risk. As high school students begin to search for a college to attend, some students will look for a campus that is proactive in its environmentalism.

SUGGESTIONS FOR HOW NIU MEETS THE GOAL

As the cost of energy consumption continues to rise, NIU must take steps to control its costs. This is best accomplished through the reduction of use. The use of energy efficient lighting, hybrid vehicles, alternative fuels and the use of more efficient equipment will help control energy use. Additionally, steps must be taken to increase recycling across campus. A short checklist:

- Compliance by all university departments with Public Act 094-1079 requiring the university to purchase flex-fuel or hybrid vehicles
- Expanded use of alternative fuels
- Enforced campus-wide limit on vehicle idling time
- Comprehensive recycling across campus with emphasis within the residence halls
- New construction or remodeling done to LEED specifications
- Expanded use of environmentally friendly cleaning products
- Use of permeable paving products where feasible
- Hire a Sustainability Coordinator

ORGANIZATIONAL OR POLICY CHANGES REQUIRED

Policy should be drafted that addresses sustainability at an institutional level.

BUDGETARY CONSIDERATIONS

Through more efficient equipment, costs for energy may remain steady, even as per unit costs increase. Upfront costs, such as the cost of more efficient equipment, will need to be addressed at the institutional level, not just on a departmental level.

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE

Unknown

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL

It would take an institutional commitment to implement this goal with identified key players from the President’s Office and the remainder of campus. In particular, a newly-hired sustainability coordinator would be responsible for implementing the goal.
ISSUE
Campus wireless technology access

INDICATOR
Percentage of campus with access to WIFI and cellular systems

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS
NIU has deployed WIFI to less than 15% of the campus, while cellular coverage, though better, is less than 100%. Additionally, not all carriers provide comprehensive coverage. See Table 2.5.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Housing Areas</th>
<th>Academic Areas</th>
<th>Other Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akron</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
</tr>
<tr>
<td>Ball State</td>
<td>100%</td>
<td>100%</td>
<td>25%</td>
</tr>
<tr>
<td>Bowling Green State</td>
<td>100%</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>Illinois – Springfield</td>
<td>100%</td>
<td>100%</td>
<td>75%</td>
</tr>
<tr>
<td>Illinois State</td>
<td>100%</td>
<td>15%*</td>
<td>5%**</td>
</tr>
<tr>
<td>Kent State</td>
<td>75%</td>
<td>75%</td>
<td>35%</td>
</tr>
<tr>
<td>Miami (OH)</td>
<td>100%</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>NIU</strong></td>
<td><strong>15%</strong></td>
<td><strong>15%</strong></td>
<td><strong>5%</strong></td>
</tr>
<tr>
<td>Ohio</td>
<td>100%</td>
<td>100%</td>
<td>25%</td>
</tr>
<tr>
<td>Western Michigan</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*With a goal of 100% by 2014  **With a goal of 75% by 2014

Table 2.5

GOAL
See Tables 2.6 and 2.7.

<table>
<thead>
<tr>
<th>GOALS FOR WIRELESS INTERNET COVERAGE AT NIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Housing</td>
</tr>
<tr>
<td>Academic</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Table 2.6
### GOALS FOR CELLULAR COVERAGE AT NIU

<table>
<thead>
<tr>
<th>Provider</th>
<th>Current Coverage</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verizon</td>
<td>60%</td>
<td>100% by 2013</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>25%</td>
<td>75% by 2014</td>
</tr>
</tbody>
</table>

**Table 2.7**

**JUSTIFICATION FOR THE GOAL**

Students and faculty have come to expect and depend on access to WIFI and cellular systems. The number of students utilizing smart phones and pad devices is growing rapidly. It is an essential part of communication and student development. Additionally, it is also an important factor for prospective students in deciding whether a university will be able to keep up with their growing technological needs. To remain competitive with our peer institutions, in the rapidly changing technology environment, wireless and cellular access across campus is essential. Our peers are already 100% WIFI in housing and either are at 100% in academic spaces or have plans to be 100% wireless within three years. Cellular coverage is also comprehensive at our peer institutions.

**SUGGESTIONS FOR HOW NIU MEETS THE GOAL**

To further expand existing campus wireless service, new ways must be found to lower the cost of wireless access and provide incentives and direct support methods in order to significantly expand our coverage. ITS must find ways to reduce the cost per AP install and for the ongoing support. Additionally, the university needs to develop new resources and/or reallocate existing resources for this service area. ITS must develop a collaborative relationship with the cellular carriers to provide additional coverage and capacity.

**ORGANIZATIONAL OR POLICY CHANGES REQUIRED**

Current policy requires individual departments to fund wireless service in the buildings they occupy. For buildings with multiple tenants, there is no clear method to allocate funding for the access. The two most common approaches used to solve this problem at other institutions are:

**OPTION 1:** Move from charging a per connection point charge to a flat “head-count” tax. This creates an aggregation of money which can be applied to designated areas as management deems appropriate.

**OPTION 2:** Leave the existing process in place and create a centralized source of money to be used to fund general service areas (other). This option would result in a faster implementation process and is the recommended option.
BUDGETARY CONSIDERATIONS

By breaking the project scope into two areas, it becomes more manageable.

HOUSING

Planning has already begun to provide WIFI throughout all housing areas with a completion date of end of year 2014. This is being accomplished by using multiple fund sources. With new construction, the capital costs are part of the construction fund. For remodels and upgrades, a combination of funding is derived from: 1) savings from removing telephones from the rental costs; 2) housing tech fees; 3) lower charges from ITS.

ACADEMIC AREAS

Colleges and ITS are working to reallocate existing technology dollars to support the costs of adding new access points throughout the individual college areas. This could be increased by consolidating college and IT services and using freed-up resources to support both the college and shared spaces. Additionally, ITS continues to work to lower the cost of access points to allow for more units at no additional cost to the college.

OTHER AREAS

A central pool of money is required to fund the general purpose academic buildings (Still Hall, DuSable Hall, McMurry Hall) and major outdoor areas most requested by students. Annual funding of $70,000 would meet this goal.

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE

Unknown

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL

ITS, in partnership with Housing and Dining and the Provost’s Office
ISSUE
Deferred maintenance

INDICATOR
• Square footage
• Replacement cost
• Deferred maintenance
• The Facility Condition Index (FCI)

FCI measures the cost of deferred maintenance versus replacement cost of the building or system. Developed by the Association of Physical Plant Administrators (APPA), the FCI compares an institution’s deferred maintenance to the current replacement value of its facilities. In other words, FCI expresses the depleted value of an institution’s physical plant. For example, a building with a $2 million replacement value and $100,000 worth of deficiencies would have an FCI of 5% of total replacement value. According to commonly accepted industry benchmarks, an FCI of 5% or less is considered “good,” an FCI of 5% to 10% is “fair,” and an FCI above 10% represents “poor” facility condition.

The FCI is useful for setting annual goals for reducing deferred maintenance backlogs to manageable amounts. Alternative scenarios (more realistic for NIU) can be developed to achieve a certain FCI level after a period of years. According to APPA’s survey of 3,600 colleges and universities around the country, about 25% use FCI to track their deferred maintenance.

NIU’S BENCHMARK AND COMPARISON TO COMPETITORS
See Table 2.8 on next page. Data is not easily obtainable; data has been requested from the schools listed in the table.

GOAL
NIU should maintain an FCI through asset management and sound priority allocation that is indexed to the funding level available. A target goal should be 30%. Also, on an annual basis, NIU should maintain or reduce the quantity of deferred maintenance.

JUSTIFICATION FOR THE GOAL
Deferred maintenance is a temporary monetary solution to a problem that will grow to be exponentially worse in time. It is an organization’s backlog of necessary repairs and renovations to its facilities. Compared to the industry norm, public colleges nationwide have the highest ratio of deferred maintenance to
facility replacement value and one of the lowest spending rates on deferred maintenance. To complicate matters, most universities have building stock that were constructed during higher education’s post-World War II expansion. Such buildings were built with:

- Poor designs for institutional durability.
- Cost-cutting efforts that rapidly produced space with inferior construction techniques, and innovative materials that showed early failures.
- Disregard to utility costs (no insulation in the buildings).
- Systems that require frequent attention from Heating Plant staff. This is problematic considering inflation-reduced operations and maintenance budget reductions.
- Construction methods that required substantial system maintenance after 40 years. This is problematic because of inadequate funding of capital renewal and major maintenance from the state.

Almost as damaging is the practice of new construction taking priority over renovation on campuses, according to a recent survey by the APPA, the National Association of College and University Business Officers, and the Student Loan Marketing Association. Public colleges responding to the survey indicated that they have more square footage in construction than in renovation, thus spending more on building than on rebuilding.
Deferred maintenance results in the physical deterioration of buildings and equipment that can be more costly to repair and can endanger the health and safety of students. *(See images 2.10-2.20 as examples of deferred maintenance concerns.)* For instance, it is cheaper to repair a leaking roof than to replace the roof, flooring, and walls damaged by rain. Colleges and universities have an obligation to ensure that students enjoy a safe, healthy, and functional environment.

Maintenance delays can result in significant cost increases or even the demolition of the facilities involved. In fact, demolition of a facility with substantial deferred maintenance is one way to address an institution’s overall backlog of deferred maintenance. Coupling such a demolition with construction of a new energy efficient and sustainable facility can thus reduce both the institution’s deferred maintenance backlog and reduce future costs for utilities and maintenance. On the other hand, using available funding for new construction without demolition of facilities in substantial disrepair not only increases an institution’s overall future operating costs due to expanded demands for utilities and maintenance, but also increases costs by delaying needed maintenance. Therefore a key to reducing both deferred maintenance and ongoing operating costs is to include appropriate demolition with any new building project.

Many of the campus buildings and systems are either antiquated or underdeveloped and at this point in their lifecycle do not meet current student and faculty needs and expectations. Students are making their decisions to go elsewhere based on the first impression NIU buildings present. NIU needs to improve its stewardship of its existing buildings.

**SUGGESTIONS FOR HOW NIU MEETS THE GOAL**

NIU should immediately stop adding new square footage to campus but, rather, focus on stewardship and deferred maintenance by defining the percentage of the overall campus budget that will be dedicated to repair, renovation, and maintenance of existing facilities. Other institutions (not necessarily our peer institutions for this initiative) track how well they control the worsening of deferred maintenance over time. Considering the current level of state and federal interest in maintaining state universities and the age of typical university building stock, a university that is maintaining a constant deferred maintenance level or even losing a little ground annually is considered as providing good stewardship.

NIU should also invest two years in performing meaningful, well-developed building audits. We must develop a database that adjusts for system lifecycle cost changes as years move on and automatically update the NIU Deferred Maintenance Log (DML). Updates must also occur when items on the DML are addressed
and should be removed; it is likely that the NIU Physical Plant will need to be the repository for such information and updates. NIU’s continuum of ranking should mirror the APPA standards so that NIU is using nationally recognized terms and calculations. This will make it easier for NIU to compare “apples to apples” with peer institutions once NIU has invested in performing building audits.

ORGANIZATIONAL OR POLICY CHANGES REQUIRED

The F&E Working Group recommends that the university consider adopting new guidelines to manage facilities capital investments including:

• That a guideline of No Net New Space be adopted. As new construction is being planned, a process should be followed that determines which of the current buildings should be razed as a result of the new construction. Finance and Facilities should be charged with defining which buildings should be considered historic/legacy buildings and which are utilitarian/replaceable buildings. Such a policy will not only assist with deferred maintenance, but will also improve accessibility, sustainability, and will enhance overall campus beautification if planned correctly.

• That all new construction projects should be required to address long-term capital maintenance and renewal needs by defining and funding an annual stewardship fund to keep up with the maintenance for these new facilities.

• That the university increase the annual capital budget that funds maintenance and repairs so as to slow the annual deferred maintenance level to a zero annual increase.

• That the university should use every opportunity to leverage performance contracting.

• That the university should seek even more effective ways to inform the state legislature of capital needs and the importance of investing in the unmet needs of the physical plant of the university.

BUDGETARY CONSIDERATIONS

APPA’s Building Research Council has developed conclusions and recommendations based on the finding that underfunding of maintenance and repair is a widespread and persistent problem. To overcome this problem, maintenance and repair budgets should be structured to explicitly identify the expenditures associated with routine maintenance and repair and activities to reduce the backlog of deferred maintenance.
The council concluded that an appropriate total budget allocation for routine maintenance and capital renewal is in the range of 2 to 4 percent of the aggregate current replacement value of those facilities. Since NIU does not have a well-developed grasp on its DML, it makes sense to utilize the APPA rule of thumb rate while NIU develops its DML and eventually creates a more NIU-campus-specific model for addressing deferred maintenance with its own percent of the aggregated current replacement value for its facilities. This percentage could even change from year to year as part of the budgeting process based on changes to the DML.

If NIU intends to follow the APPA Building Research Council’s recommendation, the university needs to invest approximately $55 million annually in the repairs and maintenance of campus facilities and systems. This investment can be a combination of annual capital budgets, utilization of the new student facilities fee, new university appropriations, gifts, state capital renewals, performance contracts, and new state capital allocations.

This annual investment of between 2.3% and 2.5% of the estimated current replacement value of the campus and its facilities is required toward the total deferred maintenance accumulated in order to offset the effects of inflation and aging. A smaller investment means the FCI will increase; a larger investment causes the FCI to decrease. As we get a better understanding of the true campus DML, the annual investment will change if the university holds to this industry goal of 2.3% to 2.5%. An important and often misunderstood point is that this range does not include “one-time” funding to reduce deferred maintenance backlogs. This is an ongoing annual investment.

PLANNING DOCUMENTS THAT ADDRESS THE ISSUE
Unknown

GROUP(S) IN CHARGE OF APPROVING OR IMPLEMENTING THE GOAL
Finance and Facilities