Final Predesign Report

November 15, 2016

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed architect under the laws of the state of Minnesota.

Name: Stacee Demmer
Email: stacee.demmer@lhbcorp.com
Date: November 15, 2016
Registration No. 44482
## Basic Information

<table>
<thead>
<tr>
<th>College/university name</th>
<th>Century College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of campus</td>
<td>East Campus</td>
</tr>
<tr>
<td>Project name</td>
<td>Century College - Engineering and Applied Technology Center</td>
</tr>
<tr>
<td>Project address &amp; county</td>
<td>3300 Century Avenue North, White Bear Lake, Minnesota 55110, Washington County</td>
</tr>
<tr>
<td>Institution priority</td>
<td>1</td>
</tr>
<tr>
<td>Project phase</td>
<td>1</td>
</tr>
<tr>
<td># of phases:</td>
<td>1</td>
</tr>
<tr>
<td>Project request 2018 ($)</td>
<td>7,216,765</td>
</tr>
<tr>
<td>Proj. request 2020</td>
<td>$0</td>
</tr>
<tr>
<td>Proj. request 2022</td>
<td>$0</td>
</tr>
<tr>
<td>Total request, all years</td>
<td>7,216,765</td>
</tr>
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</table>

## Scope of Work

<table>
<thead>
<tr>
<th>New construction (GSF):</th>
<th>0</th>
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<tbody>
<tr>
<td>Demolition area (GSF):</td>
<td>0</td>
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<tr>
<td>Renovation area (GSF):</td>
<td>16,580</td>
</tr>
<tr>
<td>Renewal area (GSF):</td>
<td>4,000</td>
</tr>
</tbody>
</table>

## Construction Schedule (enter dates as mm/yyyy)

<table>
<thead>
<tr>
<th>Construction start date</th>
<th>December 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midpoint of construction</td>
<td>July 2020</td>
</tr>
<tr>
<td>Occupancy date</td>
<td>January 2021</td>
</tr>
</tbody>
</table>

## Budget and Costs (for 2018 request only)

<table>
<thead>
<tr>
<th>Previous appropriations (Year, $, purpose/scope):</th>
<th>$0</th>
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<tbody>
<tr>
<td>Total project cost:</td>
<td>7,216,765</td>
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<tr>
<td>Construction cost:</td>
<td>3,940,000</td>
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<tr>
<td>FF&amp;E Costs:</td>
<td>394,000</td>
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<tr>
<td>IT Costs:</td>
<td>$0</td>
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<td>Relocation costs:</td>
<td>$0</td>
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## Space Utilization

<table>
<thead>
<tr>
<th>Space util. of project area</th>
<th>83%</th>
</tr>
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<tbody>
<tr>
<td>Proposed utilization</td>
<td>88%</td>
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</table>

## Facility Condition and Sustainability

<table>
<thead>
<tr>
<th>FCI of project area</th>
<th>Main Building East: 0.19 / Auto Part Addition: 0.09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed FCI</td>
<td>Main Building East: 0.15 / Auto Part Addition: 0.07</td>
</tr>
<tr>
<td>Backlog ($) removed</td>
<td>$4,069,000</td>
</tr>
<tr>
<td>Renewable energy system included in project?</td>
<td>No</td>
</tr>
</tbody>
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## Other Considerations

<table>
<thead>
<tr>
<th>Any private use (Workforce Center, outside vendor, etc.)?</th>
<th>This project will provide space to accommodate partnerships with Universities, Workforce Center, Adult Basic Education, Post Secondary Options Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will more than one campus use this project?</td>
<td>No</td>
</tr>
</tbody>
</table>
November 15, 2016

Brian Yolitz
Associate Vice Chancellor for Facilities
30 E. 7th Street, Suite 350
St. Paul, MN 55101

Dear AVC Brian Yolitz,

RE: Predesign Submittal for the remodeling of East Campus Main Building at Century College

In accordance with Minnesota Statutes §16B.335, Subdivision 3, enclosed you will find the Predesign submittal document for the Applied Technology Center, East Campus Main Building at Century College. This predesign outlines Century College’s capital budget request for the 2017 state legislative session.

This project consists of remodeling of 20,580 square feet of space to support our applied technology and STEM related programs. The total project cost is estimated to be $7,218,765. This proposal seeks full funding in the amount of $7,218,765.

Sincerely,

[Signature]

Dr. Patrick Opatz
Interim President
November 15, 2016

President, Dr. Pat Opatz  
Century College  
3300 Century Avenue North  
White Bear Lake, MN 55110  

Dear Dr. Pat Opatz,  

We are pleased to submit to you the final predesign for the Engineering and Applied Technology Center. The attached document has been prepared in accordance with the MnSCU Predesign Guidelines and in collaboration with you, your staff, and the Steering Committee.  

The scope of our work on this project has been to evaluate the existing conditions of the spaces serving the Math, Computer Science, and Engineering departments on the East Campus of Century College. We have met with the Predesign Committee and Executive Cabinet to determine programmatic needs of multiple programs. LHB provided concept plans to create an Applied Technology Center that will expand the College’s capacity to deliver programs in high demand career fields.  

LHB  

Stacee Demmer, AIA  
MN Registration #44482  

LHB File #140393  

M:\14Proj\140393\400 Design\406 Reports\Links\Consultant Letter.docx
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Project Description

Century College

Engineering and Applied Technology Center
Century College East Campus
3300 Century Avenue North
White Bear Lake, Minnesota 55110

Scope

The College will develop a multi-disciplinary Engineering and Applied Technology Center on second floor east campus (adjacent to the six new flexible classroom addition and the Science Library building) designed to serve the future Applied Engineering program and other STEAM (Science, technology, engineering, art and math) programs as a means of addressing critical program and workforce needs.

The Engineering and Applied Technology Center builds upon the recent renovation and expansion of the College’s Digital Fabrication Laboratory (“Fab Lab”) and Engineering classrooms (funded through 2014 initiatives) to create flexible space to be used by Computer Science, Math and other STEAM faculty, along with an adjacent learning commons area for integrated/interdisciplinary study. Included in this space will be flexible laboratories for workforce development (CECT) and industry partnerships (e.g., mechatronics, design technologies, additive manufacturing) with the intent to integrate career pathways connecting credit and non-credit programming.

Creating the needed space on the second floor impacts areas on the first floor. The welding laboratory will be expanded and upgraded to meet the needs of the applied technology/mechatronics program areas and begin program expansion into the robotic welding competencies. FAB Lab 2, containing more traditional manufacturing tools, will be developed within the current tech shop and connected via stair to the new Learning Commons on second floor. This connection sets the space up for faculty supervision and flexibility in program delivery as the courses transition from traditional manufacturing to 100% digital.

District 916 Auto Dismantling Program will be consolidated with the removal of the defunct paint booth (previously aligned with the Century College Autobody Program) into a more functional and flexible instructional lab for 916 programs and better overall utilization of space for Century College.

Lastly, the College intends to renovate the adjacent student support space, aligning student support services with the newly renovated Engineering and Applied Technology Center. The project also creates a visible space for growing University Partnership that will align with the metro area Baccalaureate Center Initiative.

Schedule

<table>
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<tr>
<th>Year</th>
<th>Appropriation</th>
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<tbody>
<tr>
<td>2016</td>
<td>None</td>
</tr>
<tr>
<td>2018</td>
<td>Planning, Design, and Construction Funding Request</td>
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</table>

<table>
<thead>
<tr>
<th>Stage</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Start</td>
<td>December 2019</td>
</tr>
<tr>
<td>Midpoint of Construction</td>
<td>July 2020</td>
</tr>
<tr>
<td>Occupancy</td>
<td>January 2021</td>
</tr>
</tbody>
</table>

Project Delivery

The project will follow a design, bid, build path with construction starting in winter 2019.

Funding

This project is committed to the efficient use of State and College funding sources. It is anticipated that project costs for the project, including design, construction, project management fees, and FFE will total approximately $7,216,765. This funding will be secured with the 2018 bonding cycle.
Size and Cost

<table>
<thead>
<tr>
<th></th>
<th>GSF</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Renovation/Renewal</td>
<td>16,580</td>
<td>$2,265,000</td>
</tr>
<tr>
<td>New Construction</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2nd Floor Infill</td>
<td>4,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Abatement</td>
<td></td>
<td>$350,000</td>
</tr>
<tr>
<td>Contingency</td>
<td></td>
<td>$325,000</td>
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<tr>
<td>TOTAL Construction Cost</td>
<td>20,580</td>
<td>$3,940,000</td>
</tr>
<tr>
<td>Cost per SF</td>
<td></td>
<td>$191</td>
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</table>

Anticipated Total Project Cost

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Cost (Construction)</td>
<td>$3,940,000</td>
</tr>
<tr>
<td>Soft Costs (Fees, Furnishings</td>
<td>$1,568,140</td>
</tr>
<tr>
<td>Voice/Data, Security)</td>
<td></td>
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<tr>
<td>Inflation</td>
<td>$1,708,625</td>
</tr>
<tr>
<td>TOTAL Project Cost</td>
<td>$7,216,765</td>
</tr>
</tbody>
</table>

Major Impacts

- Establish a strong identity and physical presence for numerous academic departments, encouraging increased enrollment and retention, stronger community and academic partnerships, and bringing future employers to campus.
- Century is working to increase our enrollment and retention by leveraging existing programs and renovating space to serve STEAM careers. By 2018, there could be 2.4 million unfilled STEAM jobs. While jobs overall are expected to grow 10 percent by 2018, STEAM jobs are predicted to grow by 17 percent. More than half of this growth will be made up of computer careers, and more than a quarter will be engineers and technicians. Life/physical scientists, architects and surveyors, and mathematical sciences make up the remainder.
- Improve teaching and learning by reorganizing the welding and maker’s labs.
- Create a visible presence for university partnerships.
- Increased energy efficiency, reduction of greenhouse gases and compliance with 2016 revisions to MSBG (B3).
- Continue implementation of the Master Facility Plan by developing Learning Commons and spatially aligning similar programs to create synergy and improve student access to faculty and academic services.

Consequences of Delayed Funding

Without the new space, Century College will be acutely hindered in its ability to address up-to-date high demand STEAM programs. Century College is leveraging the strength of existing programs to expand and create new high demand STEAM programs and address critical workforce needs. New and updated facilities are required to deliver the type of education and training demanded by local businesses, especially in the manufacturing and other STEAM-related fields. The current space is not adequate to expand the programs. We are primarily renovating and reorganizing existing space to address these needs.

The renovation also allows Century room to implement program changes as a result of being a partner in the Minnesota Advanced Manufacturing Partnership (MNAMP) which has been selected to receive a $15 million U.S. Department of Labor TAACCCT grant for the Learn, Work, Earn advanced manufacturing education project.

Program Delivery

These renovated spaces support certificates and degrees within the Technology and Engineering (STEAM) Pathway. The manufacturing based curriculum is hands on in the labs but also incorporates traditional lectures, collaborative learning, and online interactive instruction. A specific objective of the renovation is to develop interdisciplinary relationships and shared courses among related programs. The reorganization of spaces advances the integration of credit versus non-credit classrooms and labs.

Affected Academic Programs

- Additive and Digital Manufacturing
- Computer Science
- Engineering
- Engineering CAD Technology
- Related Intermediate School District 916 Programs
Affected Operational Programs
Redevelopment of East Academic Support Center and related student support services on East Campus.

Affected Partnership Programs
Century continues to build relations with local business for Customized training, and is aware of the facility requirements to meet their needs. They have been successful recently in landing MJSP grants and will continue to pursue these but have identified limitations because of current space. They recognize the need to seek to collaborate with employers to identify synergies to incorporate experiential learning across multiple career clusters. Specifically, the applied technologies and advanced manufacturing employers are requesting training and education partnerships which could be enhanced through this project. These partnerships will also impact degree programs.

Century is partnering with White Bear Lake areas schools to deliver Adult Basic Education courses on campus, working to create permanent space for them on campus.

Intermediate School District 916 is also a key partner for Century, occupying 41,300 SF in the building and exposing its students to the opportunities available at Century.

Major Facility Issues
The project will address HEAPR related corridor renewal and HVAC distribution upgrades. The project will remove a significant amount of asbestos containing fireproofing and address acoustical improvements needed between the autobody shops, instructional areas, and noisy gathering areas like the Lincoln Mall.

Summary of Alternatives
The core of the project as described in the 2014 Master Plan is to develop an Engineering and Applied Technology Center, along with associated STEAM learning commons. We altered the focus of the learning commons from a Math centered one to a multi-disciplinary STEAM emphasis, leveraging the College’s Digital Fabrication Lab and Engineering expansion.

After several draft versions, we came to the conclusion that creating the Math commons in that area would be too costly and we downsized the approach and focused it on the Applied Technology aspect of the original concept. An earlier version also considered renovating the Automotive programs on the first floor, beneath the planned mezzanine. However, we also scaled back that option to focus the project on the second floor applied technology component, along with minimal changes on the first floor.

Participants

Century College

Leadership Team
Dr. Pat Opatz  
Interim College President

Bonnie Meyers  
Acting Vice President of Finance & Administration

Mike Houfer  
Physical Plant Manager

Project Stakeholders
Michael Berndt  
Vice President of Academic Affairs

Mary Nienaber  
Interim Executive Director of Continuing Education and Customized Training

Jane Nicholson  
Dean of Trades

Iddi Adam  
Dean of Science

Andrew Nesset  
Dean of English & Mathematics

LHB
R. Bruce Cornwall, AIA  
Director of Campus Planning

Stacee Demmer, AIA  
Project Manager

Elizabeth Turner, AIA  
Architect

David Williams, PE  
Mechanical Engineer

Nathan Wriedt, PE  
Electrical Engineer

Gregg Curtis, PE  
Structural Engineer

Estimating Plus
Bill Warren  
Cost Estimator
Campus Location

Century College
3300 Century Avenue North
White Bear Lake, MN 55110
Campus Planning

Campus Mission
Century College inspires, prepares, and empowers students to succeed in a changing world.

This means:

- We inspire students to learn and to develop as whole people: intellectually, physically, and emotionally
- We inspire students to continue learning throughout life
- We prepare and empower students to be successful by helping them develop the knowledge, skills and abilities needed to enter or progress within the work force or to transfer to a four-year institution, and to adapt and thrive in our increasingly diverse and ever-changing world.

Vision Statement
To be a national leader in transforming lives through an innovative, rigorous, and compassionate approach to education.

This means:

- We continually strive to strengthen and improve the positive impact we have on our students and community: transforming their lives, as well as our own, through our work
- We will become known nationally as an institution that “makes a difference”
- We continually strive to innovate – finding new and more effective ways to educate and serve students
- We sustain rigor in our work – holding high standards and expectations for both our students and for ourselves
- We approach our work with compassion – acknowledging the whole person, working with integrity and caring, accepting people where they are and moving them forward without sacrificing standards or expectations; bringing joy, honesty, and understanding to our work.

Values Statement
The Century College community values:

- inspiring learning
- broadening perspectives
- pursuing excellence
- responding to community needs
- achieving goals
- transforming lives
- celebrating achievement

Strategic Plan
Century College is committed to transforming lives through an innovative, rigorous, and compassionate approach to education. In preparing for a changing world and increasing the success of all students, the College’s 2015-2020 Strategic Plan will eliminate the racial achievement gap, reaffirm the College’s dedication to learning, create clear, supported pathways to transfer and to employment, provide integrated support, and align and evaluate ourselves and our resources to meet these goals.

- Goal 1: Eliminate the racial achievement gap* by 2020.
- Goal 2: Establish Century as an institution dedicated to rigorous, experiential learning that stimulates inquiry.
- Goal 3: Create clear pathways to transfer and employment.
- Goal 4: Provide integrated holistic services to support student access and success.
- Goal 5: Align our resources to support student access and success.

Academic Master Plan
Century is currently in the process of updating their Academic Master Plan. Previous version was for 2006-2011.

Comprehensive Facilities Plan Alignment
This project is our current number one priority. We had initially identified a classroom expansion as a top
priority at the time the 2014 Facilities Master Plan was created. The College’s Facilities Master Plan was approved in April 2014, during the 2014 Legislative session. The Facilities Master Plan is currently being updated for completion at the end of 2016 and will reflect the shifted campus priorities.

The core of the project as described in the Master Plan is to develop an Engineering and Applied Technology Center, along with associated STEM learning commons. We altered the focus of the learning commons from a Math centered one to a multi-disciplinary STEAM emphasis, leveraging the College’s Digital Fabrication Lab and Engineering expansion. The "A" represents the arts emphasis of design and creativity that is part of engineering and fabrication. After several draft versions, we came to the conclusion that creating the Math commons in that area would be too costly and we downsized the approach and focused it on the Applied Technology aspect of the original concept.

This project supports twelve goals identified in the 2014 Master Facilities Plan and the 2016 update:

- Align Departments in Program Clusters
- Strengthen program/department identity
- Develop Learning Commons
- Foster collaboration within and across departments
- Accommodate Wider Range of Pedagogy
- Provide appropriate lab space for technical/career programs
- Support Student Success with Student Space
- Establish Advanced Technology & Design Center
- Unify Departments in Engineering and Applied Technology Center
- Renovate Aging Buildings & Infrastructure
- Enhance campus image and aesthetics
- Improve Environmental Quality

The project brings together the scattered classrooms, labs, and offices that support the applied technology certifications and degrees into a single learning commons. Lab spaces will be updated to industry standards and designed for future flexibility to accommodate coursework for an evolving industry.

The learning commons combines student study and meeting space with faculty offices and other academic resources. This leads to increased student access to faculty.

**Impact on Course Scheduling**

The reorganization of spaces and upgrades to lab spaces expands the course and program offerings for applied technology and engineering. The courses requiring classroom instruction can now be scheduled on east campus, adjacent to the labs and learning commons.

The labs will better serve needs of credit and non-credit course offerings in the same spaces, increasing flexibility for scheduling.

The facility was built in 1971, and the project area has received limited renovation since then. The current interior of this portion of East Campus is very outdated and does not reflect the “brand” or the desired “program culture” for any of the departments or programs located here. District 916 programs, currently scattered among the College’s spaces, would be consolidated eastward. Additionally, this project will eliminate a significant backlog of building repairs, and significantly improve energy efficiency—both major goals of the master plan.
Supporting Data and Studies

Enrollment

These programs are supported by the Science Department. In FY 2015, the Science Department’s combined FYE was 743.21. The headcount was 4,857 [including duplicates across disciplines]. Enrollment has remained steady, retaining much of the large gain experienced from FY 2009-2012. The number of science class sections offered increased tremendously during the sizable enrollment increase from FY 2009-2012. Biology for example, offers 1.5 times more section than in FY 2008.

The Applied Technology and Engineering Department’s enrollment has also seen steady growth over the last 9 years, unlike the decline experienced by many departments over the last few years.

### Headcount and FYE (Full Year Equivalent) Enrollment

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<tr>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Headcount</td>
<td>14,968</td>
<td>14,462</td>
<td>13,821</td>
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<td>12,395</td>
<td>11,899</td>
<td>12,018</td>
<td>12,138</td>
<td>12,017</td>
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</tr>
<tr>
<td>FYE</td>
<td>7,662</td>
<td>7,393</td>
<td>6,955</td>
<td>6,410</td>
<td>6,204</td>
<td>5,956</td>
<td>6,016</td>
<td>6,076</td>
<td>6,015</td>
<td>6,135</td>
</tr>
</tbody>
</table>

### Headcount and FYE Over Time

![Headcount and FYE Over Time Graph]

### Percentage of Full-Time vs Part-Time Students

<table>
<thead>
<tr>
<th></th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>43%</td>
<td>40%</td>
<td>38%</td>
<td>41%</td>
<td>42%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>57%</td>
<td>60%</td>
<td>62%</td>
<td>59%</td>
<td>58%</td>
</tr>
</tbody>
</table>

### Percentage of Minority / Underrepresented Students

<table>
<thead>
<tr>
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<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>35%</td>
<td>36%</td>
<td>37%</td>
<td>38%</td>
<td>39%</td>
</tr>
<tr>
<td>Underrepresented</td>
<td>63%</td>
<td>64%</td>
<td>64%</td>
<td>63%</td>
<td>63%</td>
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</tbody>
</table>
Affected Programs

The Science Department is a comprehensive one, housing a full range of basic science disciplines including Biology, Chemistry, Natural Science, and Physics. With a growing national attention on STEM careers, ours is positioned to play a pivotal role in the growth of Century College. Our science course offerings allow students at Century to form a solid foundation in core concepts and principles in all sciences and also include a suite of 2000 or upper-level division classes. The Science Department provides instruction in a number of prerequisite courses for a multitude of technical and professional programs both at Century College and elsewhere including Engineering, Physician Assistant, Physical Therapy, Pharmacy, Nursing, Dental Hygiene, Criminal Justice, Paramedic, Radiologic Technology, and an AS in Health Sciences Broad Field to name a few.

In addition to the number of technological and professional programs that rely on our department to provide prerequisite instruction, transfer students to 4-year colleges and universities also depend on our introductory courses to fulfill MnTC required goals.

In response to the statewide curriculum changes designed to create more seamless transfer pathways to 4-year institutions, Biology will also have an AS degree in place by fall 2017. In addition, Science faculty has built strong partnerships with the community including Hamline University, the Mayo Clinic, Maplewood Nature Center, and the NorthStar STEM Scholars Program [a grant funded through the National Science Foundation]. Partnerships are continuing to grow as evidenced by a substantial, new grant through Xcel Energy secured by our Natural Science instructors.

Academic Support and Science Resource Center

Before supplying data in support of our proposal for a dedicated SRC space in the predesign, we would like to caution that the numbers are likely gross underestimates of actual use due to our current tracking system and technical problems experienced early on in the implementation in 2013.

Visits / semester varies greatly from 836 [spring 2014] to 150 [fall 2014]. The same holds true for total tutoring hours [1,376 spring 2014 and 240 in fall 2014]. Extreme fluctuations are likely due, in part, to the nature of the current SRC space. Strict adherence to the check-in policy [students swiping their ID] is dependent on tutors present to remind students to do so. Since over half the tutors do not hold hours in the current SRC due to its limitations, students seeking tutoring often do not observe the check-in policy. Having a central Science ‘hub’ with adequate space to house both tutors, models, microscopes, and students will encourage more tutors to hold their hours in the SRC.

Tutors are available to provide additional aid for 20 science courses. This also varies from one semester to the next because our recruitment of tutors is inconsistent, in part because potential tutors do not know of this opportunity. By seeing tutors in action at the SRC ‘hub,’ potential tutors are more likely to learn and understand the important role tutors play in the success of their peers in science courses. To date in fall 2016, science students have visited the current SRC 212 times, totaling 395 tutoring hours. One is left to wonder how many students we are not reaching due to our inadequate facilities.
Intermediate School District 916 Partner Academic Programs

Intermediate School District 916 (District 916) occupies 41,300 square feet of space throughout the east campus of the College through a Joint Powers agreement with the College. District 916 pays for use of the space and related services to the College based on square footage occupied. They will be contributing to any additional operating costs attributed to this project.

The mission for Career & Technical Education at Northeast Metro 916 is to deliver relevant, quality technical education by providing career exploration and preparation for employment and continuing education in cooperation with member districts and employers.

More than 1,100 high school juniors and seniors participate in programs offered at the Career & Technical Center, which is housed on the East Campus of Century College. Students have the opportunity to earn high school elective credit and Graduation Standard credit, as well as college credit and advanced standing in post-secondary institutions.

Additive and Digital Manufacturing

Digital manufacturing technologies use principles and theories of science, technology, engineering, art, and mathematics (STEAM) to solve technical problems in today's manufacturing environments.

Advanced digital manufacturing, typically called 3D printing, is expanding new dimensions found in traditional manufacturing settings. Increasingly our high-technology economy is dependent on having a supply of qualified and skilled "digital workers" who possess skills in computer-based design/simulation, electronics, programming, mechanics, 3D printing, and manufacturing automation to develop and maintain advanced digital based manufacturing systems used in business and today's industry.

This program prepares students to work as applied digital technologists in industries where manufacturing process utilize systems of control and automation in manufacturing. Graduates of the Additive Digital Manufacturing program may develop and test industrial process control systems, supervise the building and testing of prototypes, supervise and conduct the installation and operation of automated machine systems, and work in the rapidly growing IoT (Internet of Everything) field. Graduates will be able to calibrate and control automated machine cells, assist in applied research under the direction of scientists and engineers, and set up and operate specialized diagnostic equipment in order to test, troubleshoot, and analyze performance.

The 60 credit ADM Additive and Digital Manufacturing Associate in Applied Science Degree has an emphasis on communication, leadership, project management, and digital manufacturing ecosystems.

Labor Demand - Seven-County Metro Area

Projected Employment -- % Change 2014 - 2024 (DEED)

- Computer Controlled Mfr 15.7%
- CNC Machine Tool Programming 18.5%

Program Enrollment and Cost

The program was started in 2016 so historical data is not available.

Accreditation Status

Not Accredited
Computer Science

This degree introduces students to the skills related to the analysis, design and development of information systems. Upon completion, the graduate will have acquired a solid mathematical background and a firm foundation in both the practical and theoretical aspects of contemporary computer science. This program has been designed to equip students to transfer into a typical four-year Computer Science degree program.

Specific transfer plans, with the college of choice, should be made as early in the degree as possible to ensure an appropriate program is planned for enrollment at Century and at the four-year school.

Labor Demand - Seven-County Metro Area

Projected Employment -- % Change 2014 - 2024 (DEED)

- Computer Systems Analyst: 18.9%
- Computer Network Support: 8.0%
- Information Systems Mgrs: 15.6%

Accreditation Status

Not Accredited

Program Enrollment and Cost

<table>
<thead>
<tr>
<th>Table 1: Enrollment in Program Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Student Headcount</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>691    629     614     623     585</td>
</tr>
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<td>Credit Hours Generated</td>
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<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>2534   2397   2293    2404    2332</td>
</tr>
<tr>
<td>Faculty FTE</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>3.50   3.18   2.93    3.09    2.98</td>
</tr>
<tr>
<td>Student/Faculty Ratio</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>24.2   25.1   26.1    26.0    26.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2: Course Sections / Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total Course Sections</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>34     31      23       31       29</td>
</tr>
<tr>
<td>Seats Available</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>1020   930    870      920      870</td>
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<td>Seats Filled</td>
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<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>843    790    751      790      766</td>
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<tr>
<td>% of Seats Filled</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>83     85      86       86       88</td>
</tr>
<tr>
<td>Section Average</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>30     30      30       30       30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3: Program Costs</th>
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<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>MnSCU Cost per FYE - 2-year Colleges</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>3594   3942    5287     4672     4413</td>
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<tr>
<td>Cost per FYE</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>3771   3622    3447     3843     3822</td>
</tr>
<tr>
<td>Difference</td>
</tr>
<tr>
<td>2011   2012   2013   2014   2015</td>
</tr>
<tr>
<td>-177   320     1840     829      591</td>
</tr>
</tbody>
</table>
Engineering

The Associate in Science in Engineering is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program in one of the following engineering fields: aerospace, biomedical, bioproducts & biosystems, chemical, civil, computer, electrical, geological, material, mechanical, and general engineering. This program includes the courses usually required in the first two years of a baccalaureate engineering curriculum. The College’s new state-of-the-art fabrication lab is aligned with MIT’s highly successful fab lab network. In the College’s “Fab Lab,” students are able to build all sorts of structure, machines, mechanisms, and circuits. Equipment available to students includes a rapid prototyping machine, laser cutter, CNC mini mill, and other machine tools.

Labor Demand - Seven-County Metro Area

Projected Employment -- % Change 2014 - 2024 (DEED)

- Chemical Engineer: 10.8%
- Civil Engineer: 6.6%
- Mechanical Engineer: 1.6%
- Electrical Engineer: -0.2%
- Environmental Engineer: 13.8%

Accreditation Status

Not Accredited

Program Enrollment and Cost

<table>
<thead>
<tr>
<th>Table 1: Enrollment in Program Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Student Headcount</td>
</tr>
<tr>
<td>Credit Hours Generated</td>
</tr>
<tr>
<td>Faculty FTE</td>
</tr>
<tr>
<td>Student/Faculty Ratio</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2: Course Sections / Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Course Sections</td>
</tr>
<tr>
<td>Seats Available</td>
</tr>
<tr>
<td>Seats Filled</td>
</tr>
<tr>
<td>% of Seats Filled</td>
</tr>
<tr>
<td>Section Average</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3: Program Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MnSCU Cost per FYE - 2-year Colleges</td>
</tr>
<tr>
<td>MnSCU Cost per FYE - 2-year Colleges</td>
</tr>
<tr>
<td>Cost per FYE</td>
</tr>
<tr>
<td>Difference</td>
</tr>
</tbody>
</table>
Engineering CAD Technology

The Engineering CAD Technology Associate in Applied Science degree program uses Computer Aided Drafting and Design (CAD) systems to create engineering drawings. Emphasis is placed on mechanical drafting standards, components and design for manufacturing. Graduates of the program find employment as mechanical drafters, engineering assistants, technicians, and technical sales people.

The Digital Fabrication Technology certificate is designed for individuals interested in learning more about automation and manufacturing technologies and systems. Students enrolled in ECAD, Engineering, Math and Science programs/disciplines benefit from this additional set of technical courses designed to prepare graduates for entry level employment or continuing education in technical/engineering fields. Additionally, this certificate serves as the entrance into the ECAD program. Graduates may gain employment in firms' R&D, model shops or prototype departments.

Labor Demand - Seven-County Metro Area

Projected Employment -- % Change 2014 - 2024 (DEED)

- Architectural & Civil Drafters: -4.6%
- Mechanical Drafters: -8.9%
- Electrical Drafters 3.1%
- Computer Machining 18.5%

Accreditation Status

Not accredited

Program Enrollment and Cost

<table>
<thead>
<tr>
<th>Table 1: Enrollment in Program Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
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<tr>
<td>----------------------------------------</td>
</tr>
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<td>917</td>
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<td>Student/Faculty Ratio</td>
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<th>Table 2: Course Sections / Seats</th>
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<tbody>
<tr>
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<td>Total Course Sections</td>
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<td>Seats Filled</td>
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<tr>
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<table>
<thead>
<tr>
<th>Table 3: Program Costs</th>
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</thead>
<tbody>
<tr>
<td>2011</td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td>MnSCU Cost per FYE - 2-year Colleges</td>
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<td>6245</td>
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<tr>
<td>Cost per FYE</td>
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<tr>
<td>5891</td>
</tr>
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<td>----------------------------------------</td>
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<tr>
<td>Difference</td>
</tr>
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<td>354</td>
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Facilities Impact
Existing Facilities Systems Summary

### FCI Calculation (in $,000s)

<table>
<thead>
<tr>
<th>Building Impact</th>
<th>Backlog</th>
<th>Current Replacement Value (CRV)</th>
<th>FCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Building East (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>$19,557</td>
<td>$104,843</td>
<td>0.19</td>
</tr>
<tr>
<td>Project Reduction</td>
<td>$4,060</td>
<td>to</td>
<td></td>
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<tr>
<td>Revised</td>
<td>$15,497</td>
<td>0.15</td>
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</table>

<table>
<thead>
<tr>
<th>Building Impact Auto Part Addition (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Project Reduction</td>
</tr>
<tr>
<td>Revised</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Combined Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Project Reduction</td>
</tr>
<tr>
<td>Revised</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Campus Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Project Reduction</td>
</tr>
<tr>
<td>Revised</td>
</tr>
</tbody>
</table>

### Backlog Reduction

This project reduces the backlog by $4,069,000.

Great strides in reducing the facilities FCI will be accomplished by replacing the HVAC mechanical equipment and controls. The mechanical systems on East Campus have been seriously neglected over the years resulting in a very inefficient and energy-wasting system. Lighting upgrades are also needed to brighten interiors and improve energy efficiency. In addition, interior finishes are dated and worn. This project will remove a portion of the significant backlog of repairs and maintenance from the system for this portion of East Campus, including replacement of HVAC systems. Particular emphasis will be on enhancing energy efficiency and air quality for the automotive programs.

### Five Year Renewal (in $,000s)

<table>
<thead>
<tr>
<th>Building Impact</th>
<th>Current</th>
<th>Project Reduction</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Main East</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>$13,688</td>
<td>to</td>
<td>$13</td>
</tr>
<tr>
<td>Building Auto Part Addition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>$19,177</td>
<td>$35</td>
<td>$374</td>
</tr>
<tr>
<td>Project Reduction</td>
<td>$9</td>
<td>$35</td>
<td>$374</td>
</tr>
<tr>
<td>Revised</td>
<td>$26</td>
<td>0.07</td>
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</tr>
</tbody>
</table>

### Space Utilization

Century College has recently identified inconsistencies in how spaces and courses are coded within their EMS System, making accurate historical data unavailable.

### Campus Wide Utilization

<table>
<thead>
<tr>
<th>Fall 2015</th>
<th>Classrooms</th>
<th>Labs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>59%</td>
<td>78%</td>
</tr>
</tbody>
</table>

### Project Area (Main Building East) Utilization

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>83%</td>
<td>88%</td>
</tr>
</tbody>
</table>

The project adds student gathering and support areas, reconfigures offices, and relocated labs. The overall number of lab spaces is not affected, but the quality of
those spaces will be improved and allow for expansion of course offerings. One classroom is added for specialized training and continuing education.

The design of the new labs and classrooms will support both credit and non-credit courses, thereby increasing potential utilization over current conditions.

**Sustainability Highlights**

The Century College sustainability committee has requested that all renovation projects on the campus meet the standards for LEED Silver certification. Registration and review fees associated with LEED Certification are high and have not historically been pursued on campus. Compliance with Minnesota B3 Guidelines offers equivalence to LEED Silver Certification at reduced cost to the college. Additionally, this size of this project requires adherence to B3 guidelines so any administrative and design team time to manage the B3 Tracking Tool are already part of the project costs.

This initiative increases the usability of the campus and expands Century’s capacity for program offerings without increasing the campus footprint. By infilling double height space and enclosing a mezzanine, additional usable instructional space is created within the existing building envelop.

All spaces are designed with future flexibility in mind to accommodate rapidly changing technology with decreased need for future demolition and construction.

This project will replace outdated and inefficient HVAC equipment. It will also increase the operating efficiency of HVAC systems through new, efficient distribution and controls tied to occupancy levels. Along with improved lighting, these HVAC distribution upgrades will contribute significantly to occupant comfort.

Materials used in the renovation will come from local sources when possible and contain high post consumer recycled content. Care will be taken to select finishes with low VOCs and materials that can be recycled at the end of life.

**Planning Process**

The Engineering and Applied Technology Center predesign began in the late summer of 2014 with meetings between LHB and Century College to define the preliminary goals of the predesign. The process involved two principle College groups: 1) the Predesign Committee, comprised of representatives from the departments initially identified to be potentially impacted by the project and 2) the Executive Cabinet. The Predesign Committee charge was to provide perspectives and impact on the proposed projects and impacts on their departments. The Executive Cabinet provided the strategic perspective and was the decision-making authority in the process.

The 2016 Predesign Committee was comprised of the following people: President, Vice President of Finance and Administration (chair), Vice President of Academic Affairs, Vice President of Customized Training, Dean of Trades, Dean of Sciences, Dean Of Math and English, Math Faculty, Computer Science Faculty, Automotive Faculty, Auto Body Faculty, Welding Faculty, President Student Senate, and Principal of Intermediate School District 916. The project will serve students in STEM programs throughout the College, as well as industry partners in STEM related areas.

The Committee met four different times during the planning process in July, August and September. The architects presented background and contextual information to the Committee at the first two meetings and different options to the Committee at the last two meetings. The members provided responses to the alternatives. In addition to the formal planning meetings, the architects met individually with each of the departments potentially impacted by the project. These “stakeholder” meetings were intended to gather additional information on individual departments and faculty concerns, including class sizes, specific department requirements, potential program growth, and partnership opportunities. The information from these meetings were shared with the full Committee.

In addition, existing statistical information was reviewed, including space utilization percentages and Facilities Condition Index (FCI) rankings. Changing pedagogical strategies, typical classroom sizes, logistics of temporary relocation of departments, and costs were also analyzed to determine the benefits of demolishing, renovation and/or new construction.
After several project alternatives were discussed, along with thoughtful review of the Campus Master Plan, the recommendation was made that the project scope should include Math, Computer Science, and Engineering.

This project was submitted to the system office in late fall of 2014 as a predesign for possible design and construction funding in 2016.

After the 2016 bonding bill did not get passed, the project was re-evaluated for submission in 2018 Capital Bonding request. The Predesign Committee met again to confirm assumptions. The resulting project is close to the previous version with the addition of a Science Resource Center for students.

**Analysis of Alternatives and Outcomes**

Over the course of six weeks, LHB provided a total of nine different options in response to discussions at three different stages in the review process. The principle parameters (scope, budget, programs) were identified early in the process and refined in subsequent meetings.

The preferred option is to create an Engineering and Applied Technology Center in conjunction with the Digital Fabrication Lab and Engineering classrooms. One of the objectives was to locate the Fab Lab, which is being moved and renovated as part of a 2014 bonding initiative, and the Engineering and Applied Technology Center in a visible space near the six classroom addition to create a synergy of existing space with new space.

Developing the needed space on the second floor impacts the areas on the first floor (primarily Welding and related Intermediate School District 916 space). Consequently, work is required to adequately reorganize that space. This concept would provide the highest value per dollar invested and best position the College for flexibility in course offerings and enhancing partnership opportunities.

An earlier version also considered renovating the Automotive programs on the first floor, beneath the planned mezzanine. However, we also scaled back that option to focus the project on the second floor applied technology component, along with minimal changes on the first floor.

A critical part of the discussion was the review of classroom utilization rates on east campus through the EMS reports. Although we recognized that classroom utilization rates were not optimal, there was not an existing space that could accommodate additional expansion of the Engineering and related programs to meet our goals.

**Capital Budget Considerations**

There have been no past appropriations for this project.

**Self Funded Projects**

Century has invested campus funds in renewing and upgrading corridor and restrooms near the project area. This project will pick up corridor renewal where the previous improvements ended.
List of Statutory Requirements

The following statutory requirements apply. See https://www.revisor.leg.state.mn.us/pubs for current requirements:

- §16B.241 Coordinated Facility Planning
- §16B.32
  - Subd 1 Alternative Energy Sources
  - Subd 1a Renewable Energy Sources -2% of energy use, solar or wind
  - Subd 2 Energy Conservation Goals (may participate in Program – not mandatory)
- §16B.325, Apply Sustainable Guidelines (B3-MSBG)(New Bldgs and Major Renovations – See Applicability Criteria at http://www/msbg/umn.edu)
- §216B/241 Sustainable Building 2030 requirements
- §16B.326 Written plan w/predesign to consider providing Geothermal & Solar Energy Heating & Cooling Systems on new or replacement HVAC systems
- §16B.33 State Designer Selection Board
- §16B.335
  - Subd 1, Notification to House & Senate Committees
  - Subd 3, Predesign Submittal—See Statute for exempted projects
  - Subd 5 & 6, Information Tech. Review by OET
  - Subd/ 3c, consider the use of MINN COR products www/minncor/com
- §16B.35 % for Art, When considered in original legislative request & when construction is $500K or greater.
SECTION 3 | Project Description

Design Intent

College Goals

Several College goals will be achieved with completion of this project. The primary goal is to expand the College’s capacity to deliver Engineering and applied technology related programs in high demand career fields. This requires additional and updated classroom and lab space. We expect to realize additional enrollments in both credit and non-credit programs, as well as new partnerships with local and regional manufacturing companies.

The College will also achieve the following goals through this project:

- Decrease the quantity of backlogged and anticipated future repairs and maintenance work needed on campus.
- Increase capacity to deliver programs while maintaining building footprint through internal mezzanine and better program organization.
- Improve the educational environment on campus by increasing the number of smart classrooms on campus and improving the ability to deliver on-line classes.
- Support the Master Academic Plan by creating Learning Commons that allow the academic mission to be implemented more fully.
- Implement several key concepts of the Master Facility Plan including:
  - Align Departments in Program Clusters
  - Develop Learning Commons
  - Accommodate Wider Range of Pedagogy
  - Support Student Success with Student Space
  - Establish Advanced Technology & Design Center
  - Unify Departments in Engineering and Applied Technology Center
  - Renovate Aging Buildings & Infrastructure
  - Improve Environmental Quality

Project Rationale

Workforce Needs

This project is designed to provide the needed space to address critical workforce needs, especially advances in applied technology. Even as the overall College enrollment has declined, Engineering has seen steady increases over the past seven years. The current Engineering award is a transfer degree. A large number of students who begin the program (and are interested in the field) do not complete. We are developing new programs (credit awards and non-credit training) that will retain these students in similar fields of study and allow them to pursue an alternative degree/career.

The Georgetown University Center publication of 2010 (www.cewgeorgetown@georgetown.edu) states that 188,000 Minnesota STEM-related jobs will need to be filled by 2018. We continue to position the College to meet that need. In addition, we need to create space to help us address shorter term industry training needs in advanced manufacturing and applied technology through our customized training programs. The flexibility planned for all of the space redesign allows us to have future programs for which we don’t even have occupational titles yet.

The redesign will also offer the opportunity to expand the Welding program in both scope (growing into more advanced welding, including robotic welding) and number of students.

Learning Commons

Century faculty, administration, and students identified a desire to see classrooms, faculty offices, tutoring, and student study space centralized by department. This grouping of multiple functions by department is referred to as a “Learning Commons.”

The learning commons is intended to encourage students and faculty to engage on many levels, from the formal classroom environment to informal contact in the community niches created within corridors and dedicated “huddle” areas. A specific objective of the renovation is to develop interdisciplinary relationships and courses among the academic programs and to facilitate active learning and create synergy among related programs. The learning commons will accommodate traditional lectures, collaborative learning, private study, community meetings, faculty offices, conferences and social gatherings, student
gathering spaces, student study areas, and on-line interactive instruction. This is intended to increase enrollment, retention and graduation.

**Program Clusters**

One of Century’s major challenges is the lack of a clear and consistent organization of similar departments and disciplines. In addition to making it difficult for students, employees, and visitors to find their way around campus, the disaggregation of departments limits the ability to develop the Learning Commons described on the previous page. For example, on West Campus Philosophy faculty offices are found on the east end of Floor 1 as well as the west end of Floor 3. Tutors Linked to Classes assisting students in these classes are located on Floor 2, and a Philosophy class may be taught in any of the classrooms scattered across all three floors. Such an arrangement limits potential for faculty-student interaction and development of program identity.

One of the major goals of planning efforts was to spatially align programs into clusters to enhance way finding, increase efficiency, and support programmatic potential. The Minnesota Career Fields, Clusters & Pathways diagram from the System Office proposed long term reorganization of Century departments based on the goals of developing Learning Commons and consolidating similar programs. This is a framework on which future projects should be based, enabling Century to consider long-term implications when meeting short-term needs.

**Student Support Services and University Partnerships**

The project improves the student support services area currently located on the second floor near the Engineering and Applied Technology Center, including adding a visible space to support and enhance university partnerships.

The current Science Resource Center [SRC] occupies a space originally purposed as a conference room. The SRC is about 250 sq. ft. and can fit a maximum of 15 chairs, one bookcase, a small whiteboard, and one computer for student use. Including tutors, about 12 students at most can receive tutoring at any one time. As a result, many Science Tutors are scattered across the science building, as well as East and West Academic Support Centers. One wall of the center is not complete, i.e. it does not extend to the ceiling which causes the space to be open to the noise from other floors and areas. It is apparent to all that this space is woefully inadequate to serve our large student population seeking science tutoring services.

Due to the growing national emphasis on STEM careers, ensuring our students’ success in science courses is even more crucial. A noteworthy change that occurred in 2008 when Science moved to East campus was a 20% increase in class size for many science courses [from 60 to 72 students]. After reviewing student success parameters, we noticed a concomitant decline in student success compared to success prior to the increase in class size. Moreover, the number of science class sections offered increased tremendously during the sizable enrollment increase from FY 2009 – 2012. Biology, for example, offers 1.5 times more sections than in FY 2008. Although a SRC was included in the original design of the Science Department space, budget constraints caused its elimination from the final plans.

Data gathered by Academic Support Services show student success significantly increases when tutors are linked to classes [through our Tutors Linked to Classes or TLC Program]. Success parameters include higher GPA, higher retention rate [almost 70% for tutored courses versus 54% for non-tutored counterparts], and lower withdrawals. The ideal location for TLCs to meet with students would be the SRC. In its current state, however, this is not possible. With a fully-equipped SRC that has enough space to accommodate tutors and a substantial number of science students, student interaction across science disciplines would greatly increase. This could have any number of synergistic effects beyond increasing student success, student retention, and student enrollment. By building a space for science students to gather, informal learning communities known to foster creative ideas will develop, creating a wealth of unanticipated benefits. Students are more likely to learn of opportunities outside the classroom such as the IMPACT Program through the Mayo clinic and the NorthStar STEM Scholars Program through NSF from science tutors as well as each other.

The college has identified a number of programs for growth in the coming years, many of which the Science Department provides prerequisite courses...
including engineering, the solar program, and allied health professional programs. Moreover, the college’s mission and annual priority has been to close the opportunity and achievement gap for students of color. Enlarging the space to accommodate students as well as resources such as anatomical models, microscopes, physics equipment, and geological specimens would provide students additional time to reinforce concepts outside of the classroom. More time engaging students in experiential and active learning can only increase their success in our science courses. It follows that both of these common college goals [expanding science related programs and closing the gap] would be realized with a fully functional SRC.

**Support of MnSCU Strategic Framework**

Minnesota State Colleges and Universities outlined three strategic directions that plan an essential role in Minnesota’s economy and providing educational opportunity for all of its citizens. The project supports these as follows:

**Ensure access to an extraordinary education for all Minnesotans**

- The project aligns campus planning priorities by advancing a top priority from the College’s Facilities Master Plan.
- The project targets state academic priorities by developing additional space for STEM disciplines, manufacturing, technology, and engineering.
- We are meeting long-term space requirements by renovating space to expand existing university partnerships and develop new university partnerships.
- The project will improve access and success to traditionally underrepresented students by creating learning commons, which effectively coordinate student study space near faculty offices and student support offices, giving students greater support, giving students access to more individualized learning and advising.
- The project creates a learning commons that will offer students access to supportive collaborative, group learning opportunities. Classrooms, faculty offices, tutoring, and student study space will be organized to increase faculty to student and student to student interaction.

**Be the partner of choice to meet Minnesota’s workforce and community needs**

- The project helps the College deliver programs that address continuing or emerging workforce needs through the College’s Customized Training program. A classroom and lab will be dedicated to the delivery of training for advanced manufacturing and applied technology programs specific to businesses in the northeast metro.
- The core of this project is to develop space support and enhance critical STEM programs in Engineering, ECAD, Computer Science and higher level Math courses.
- The project will promote and increase retention, completion, and transfer as a large portion of our Engineering students transfer to baccalaureate programs. The project will also improve the support services offered to students through the learning commons approach.
- The project is focused on producing space for applied learning to occur on campus by increasing access to more departments to the Digital Fabrication Lab, especially Engineering, Science and Math programs, as well as workforce partners.

**Deliver to students, employers, communities and taxpayers the highest value/most affordable option**

- Project options with total costs of over $11 million were initially considered. The final option prioritized desired needs to reduce the scope and cost of the project.
- The project advances cooperation among campuses by renovating space to expand existing university academic partnerships in Engineering and develop new university partnerships in several academic areas, including applied engineering/mechatronics, computer science, and business management with an entrepreneurship, and biotechnology.
The project prioritizes renovation and repurposed space to improve space utilization.

Estimates from LHB. The project reduces deferred maintenance backlog by improving HVAC systems, especially in the automotive area.

The project builds in flexible and adaptable features, including classrooms for various programs, as well as leveraging existing flexible classrooms.

R&R costs

Minimize the need to create new or additional utility and support infrastructure by replacing mechanical systems original to the building and increasing their efficiency.

Identifies total operating costs required (including new staff, anticipated utility costs, and any additional specialized costs required as a result of the project)

Any additional operating costs from the space renovation would be proportionally borne by Intermediate School District 916, with whom we have a Joint Powers Agreement, thus helping to manage our operating costs.

Past Actions Affecting the Project
The project has not received prior funding.

Proposed Building Renovation
Renewal will involve refreshing finishes and lighting within existing walls. Renovation will also involve new HVAC and some rearrangement of walls. The mezzanine will require new columns and footings extending to the first floor below.

Proposed Electrical Systems

New Electrical Service
The new distribution system within the building will consist of new medium voltage switchgear (sized at 150% anticipated load per MnSCU design standards) three medium-voltage substations, and a 480Y/277V normal power switchboards. The switchboards will feed lighting panel boards, mechanical panel boards, large mechanical equipment, and 208Y/120V step-down transformers. 208Y/120V lighting and appliance panel boards will feed receptacle and miscellaneous loads. Feeders, transformers, and panels will be sized for 125% of anticipated load. Transformers will be K-rated. Panel boards will be fully rated for the available fault current, have copper buses, have 200%-rated neutral buses, and shall be provided with 25% spare circuit breakers. Panel boards will be equipped with main circuit breakers when not located in the same room as the associated feeder disconnect or breaker.

A digital meter will be installed in the new switchgear to record and indicate kWh, demand kW/kVA, phase-to-phase volts, phase-to-neutral volts, amps, and power factor.

Metal oxide varistor (MOV) type surge protection (SPD) will be installed at the new switchboards for protection from voltage surges due to lightning.

Low Voltage Power Distribution
The new distribution system within the building will consist of an 800 amp, 480Y/277V normal power switchboard (sized at 150% anticipated load per MnSCU design standards). The switchboard will feed lighting panel boards, mechanical panel boards, large mechanical equipment, and 208Y/120V step-down transformers. 208Y/120V lighting and appliance panel boards will feed receptacle and miscellaneous loads. Feeders, transformers, and panels will be sized for 125% of anticipated load. Transformers will be K-rated. Panel boards will be fully rated for the available fault current, have copper buses, have 200%-rated neutral buses, and shall be provided with 25% spare circuit breakers. Panel boards will be equipped with main circuit breakers when not located in the same room as the associated feeder disconnect or breaker.

All power cable will be installed in conduit. Minimum conduit size is ½”. Conduit will be concealed wherever possible and practical. Metal-clad cable shall not be used, with the exception of final connections (less than six feet) to luminaires.

Conductors shall be stranded copper. Minimum wiring size for branch circuits will be #12 AWG, and all circuits will have an equipment grounding conductor. Circuits will not share a neutral conductor unless the end-use equipment is specifically designed for such a configuration and the disconnecting means opens all associated connections simultaneously. Typical lighting
and convenience power circuits will be fed by 20 amp circuit breakers. Wiring devices shall be specification-grade at minimum. No more than five (5) receptacles will be connected to each office area circuit.

Emergency Power Distribution

One (1) existing passenger elevator will be reconnected to the emergency (life-safety) power distribution system as a part of this scope.

**Interior Lighting**

Interior lighting will be designed to IESNA Lighting Handbook, 10th Edition, recommended illumination levels. The target lighting power density for the building interior will be 0.8 W/sf², and lighting controls will conform to the requirements of 2012 IECC or 2010 ASHRAE 90.1. Light sources will be LED and T-8 fluorescent types. All luminaire locations will take into consideration maintenance access, and no serviceable luminaire will be located 15’ or higher above the floor directly above the luminaire in question.

**Program Needs**

The following needs were identified through discussions and interviews with stakeholder groups, and analysis of the existing facility.

For additional information on typical spaces, such as offices, general classrooms, and conference rooms, refer to the appendix as well as the Minnesota State Colleges and Universities Space Planning Guidelines located at [http://www.finance.mnscu.edu/facilities/studies/index.html](http://www.finance.mnscu.edu/facilities/studies/index.html).

**Engineering/ Mechanics Lab**

To further expand Century College’s commitment to applied technology education and training, additional classroom/ lab space for flexible instruction in engineering and STEM related programs is needed. The space will be modeled after the Engineering Lab scheduled to open in Spring of 2015 on the east campus, and be highly flexible with appropriate storage. Space should accommodate approximately 24 students.

**Welding Lab**

The Welding Lab will be impacted by this project due to the installation of a new floor for the STEM Learning Commons on the second level. The lab will also be enhanced by its proximity and interconnected to the Fab Lab shop situated immediately adjacent to the Welding Lab.

**Academic Support and Science Resource Center**

The current Academic Learning Center on the west campus needs to be expanded to underscore Century College’s commitment to providing additional study space and access to better tutoring facilities for both individuals and groups. Secure storage space is needed for equipment, course materials, microscope, posters, specimens, etc.

**University Partnership Center**

Classroom and hoteling offices adjacent to large gathering space to accommodate partnerships with Universities, Workforce Center, Adult Basic Education and Post Secondary Options Enrollment. Both this and the adjacent student support spaces are critical to helping students ladder up to four year degree programs.

**FAB Lab 2**

The current location for the CNC Cutter, lathe, drill press and other heavy equipment is difficult to access for the college. This project relocates, reconfigures and reduces the size of the current lab, but makes it much more efficient, safe and better accessed.

**STEM Learning Commons| Informal Gathering Spaces**

Comfortable student lounge areas with a mix of seating options (tables/chairs, couches, comfortable chairs). Computer kiosks and internet connections (wireless or data ports) are also required. Spaces should promote interaction of students but be balanced with need for more quiet study areas.

**STEM Learning Commons| Focus Study Areas**

Certain public areas should be designed to provide space for short-term quiet focused activity. Seating should be raised and comfortable.
**STEM Learning Commons|Faculty Office Suite**
Office suites to accommodate 8 faculty offices. A work room and conference room (to accommodate 8-10 people) are also required.

**STEM Learning Commons | Math**
- Hoteling space for 4 Faculty

**STEM Learning Commons| Computer Science**
- 3 Faculty Offices
- 1 Computer Lab
  - 30 Students
- 1 Shared Comp. Lab
  - 30 Students
  - 2 Classes

**STEM Learning Commons| Computer Labs**
Capacity for 30 students, plus an instructor’s station and/or media cart. Typical features include carpeting, acoustical ceiling tiles, multi-switched fluorescent lighting, window treatments (if applicable), and adequate electrical/HVAC to accommodate loads generated by computers. Existing classrooms, potentially in the new Link 6 addition, may be utilized for this purpose.
## Space Needs Inventory

### Space Information

<table>
<thead>
<tr>
<th>Space Number</th>
<th>Space Name</th>
<th>Faculty Office</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed Size (NSF)</th>
<th>110 sf - 220 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departments Served</td>
<td>various</td>
</tr>
<tr>
<td>Number of Rooms Needed</td>
<td>TBD</td>
</tr>
<tr>
<td>Occupants per Room</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

**Function(s):** Provides faculty with private office space to meet with students, review student tests and assignments as well as prepare lesson plans.

**Critical Adjacencies**
Near dedicated program areas, workrooms, storage, conference

### Systems and Finishes

<table>
<thead>
<tr>
<th>Typical Finishes</th>
<th>Carpet, painted gypsum board with acoustical batts, acoustic tile ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Lighting</td>
<td>Direct/indirect, dimmable LED fixtures.</td>
</tr>
<tr>
<td></td>
<td>Occupancy sensors</td>
</tr>
</tbody>
</table>

**Typical HVAC, Plumbing, Electrical Requirements**
- Summer: 75°F and 50% relative humidity
- Winter: 72°F
- Overhead duct distribution
- Direct digital controls and temperature sensors with locking cover
- 120v power at walls

**Typical Technology Requirements**
- Computer with internet access

**Furniture, Fixtures, and Equipment (FF&E) required**
- Campus standards for desks, chairs, filing cabinets, and computer

**Other Requirements**
Typical Faculty Office Floor Plan

**Offices**: Faculty (110 sf)

**Offices**: Shared (220 sf)
## Space Needs Inventory

### Space Information

<table>
<thead>
<tr>
<th>Space Number</th>
<th>Space Name</th>
<th>Workroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Size (NSF)</td>
<td>120 sf</td>
<td></td>
</tr>
<tr>
<td>Departments Served</td>
<td>various</td>
<td></td>
</tr>
<tr>
<td>Number of Rooms Needed</td>
<td>TBD</td>
<td>Occupants per Room</td>
</tr>
</tbody>
</table>

**Function(s):** Support area for offices including copy, fax, and mail room functions. Space for the assembly of documents.

**Critical Adjacencies**

- Faculty and Administration

### Systems and Finishes

<table>
<thead>
<tr>
<th>Typical Finishes</th>
<th>Carpet, painted gypsum board, acoustic tile ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Lighting</td>
<td>Direct/indirect, dimmable LED fixtures. Occupancy sensors Under cabinet lighting</td>
</tr>
<tr>
<td>Typical HVAC, Plumbing, Electrical Requirements</td>
<td>Summer: 75°F and 50% relative humidity Winter: 72°F Overhead duct distribution Direct digital controls and temperature sensors with locking cover 120v power at walls plus capacity to support technology requirements</td>
</tr>
<tr>
<td>Typical Technology Requirements</td>
<td>Copier Fax</td>
</tr>
<tr>
<td>Furniture, Fixtures, and Equipment (FF&amp;E) required</td>
<td>Base and wall cabinets Mail Slots</td>
</tr>
</tbody>
</table>

**Other Requirements**
Typical Workroom Floor Plan (120 sf)
## Space Needs Inventory

### Space Information

<table>
<thead>
<tr>
<th>Space Number</th>
<th>Space Name</th>
<th>Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Size (NSF)</td>
<td>200 sf</td>
<td></td>
</tr>
<tr>
<td>Departments Served</td>
<td>various</td>
<td></td>
</tr>
<tr>
<td>Number of Rooms Needed</td>
<td>TBD</td>
<td>Occupants per Room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8-10</td>
</tr>
<tr>
<td>Function(s):</td>
<td>Large conference room for faculty and staff meetings.</td>
<td></td>
</tr>
<tr>
<td>Critical Adjacencies</td>
<td>Faculty Offices</td>
<td></td>
</tr>
</tbody>
</table>

### Systems and Finishes

| Typical Finishes | Carpet, painted gypsum board, acoustic tile ceiling |
| Typical Lighting | Direct/indirect, dimmable LED fixtures. |
| | Occupancy sensors |
| Typical HVAC, Plumbing, Electrical Requirements | Summer: 75°F and 50% relative humidity |
| | Winter: 72°F |
| | Overhead duct distribution |
| | Direct digital controls and temperature sensors with locking cover |
| | 120v power at walls plus capacity to support technology requirements |

| Typical Technology Requirements | Copier |
| | Fax |
| Furniture, Fixtures, and Equipment (FF&E) required | Conference table and chairs, overhead projector and screen, storage cabinets |
| Other Requirements | Overhead projector, media cabinet with recessed media, ITV system |
Typical Workroom Floor Plan (200 sf)
## Space Needs Inventory

### Space Information

<table>
<thead>
<tr>
<th>Space Number</th>
<th>Space Name</th>
<th>Proposed Size (NSF)</th>
<th>Departments Served</th>
<th>Number of Rooms Needed</th>
<th>Occupants per Room</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>600 sf</td>
<td>General Use</td>
<td>TBD</td>
<td>16-24</td>
</tr>
</tbody>
</table>

**Function(s):** Provides learning environment suitable for small seminar classes and meetings.

**Critical Adjacencies** None

### Systems and Finishes

<table>
<thead>
<tr>
<th>Typical Finishes</th>
<th>Carpet, painted gypsum board, acoustic tile ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Lighting</td>
<td>Direct/indirect, dimmable LED fixtures.</td>
</tr>
<tr>
<td></td>
<td>Occupancy sensors</td>
</tr>
<tr>
<td>Typical HVAC, Plumbing, Electrical Requirements</td>
<td>Summer: 75°F and 50% relative humidity</td>
</tr>
<tr>
<td></td>
<td>Winter: 72°F</td>
</tr>
<tr>
<td></td>
<td>Overhead duct distribution</td>
</tr>
<tr>
<td></td>
<td>Direct digital controls and temperature sensors with locking cover</td>
</tr>
<tr>
<td></td>
<td>120v power at walls plus capacity to support technology requirements</td>
</tr>
<tr>
<td>Typical Technology Requirements</td>
<td>Overhead projector and screen, Media cabinet with VHS/DVD combination player.</td>
</tr>
<tr>
<td>Furniture, Fixtures, and Equipment (FF&amp;E) required</td>
<td>Moveable tables and chairs, instructor’s podium, white board with tack strip, overhead projector and screen.</td>
</tr>
<tr>
<td>Other Requirements</td>
<td></td>
</tr>
</tbody>
</table>
Typical Floor Plan

*Instructional Space:* Seminar (600 sf)
# Space Needs Inventory

## Space Information

<table>
<thead>
<tr>
<th>Space Number</th>
<th>Space Name</th>
<th>Active Learning Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Size (NSF)</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Departments Served</td>
<td>General Use</td>
<td></td>
</tr>
<tr>
<td>Number of Rooms Needed</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Function(s):</td>
<td>Classroom providing capability for group work and hands-on instruction.</td>
<td></td>
</tr>
<tr>
<td>Critical Adjacencies</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

## Systems and Finishes

| Typical Finishes | Carpet, painted gypsum board, acoustic tile ceiling |
| Typical Lighting | Direct/indirect, dimmable LED fixtures. |
| Occupancy sensors | |

## Typical HVAC, Plumbing, Electrical Requirements

| Summer: 75°F and 50% relative humidity |
| Winter: 72°F |
| Overhead duct distribution |
| Direct digital controls and temperature sensors with locking cover |
| 120v power at walls plus capacity to support technology requirements |

## Typical Technology Requirements

“Smart” Classroom components as defined by the current Technology Plan.

## Furniture, Fixtures, and Equipment (FF&E) required

Moveable tables and chairs, instructor’s podium, white board with tack strip.

## Other Requirements
Typical Floor Plan

*Instructional Space:* Active Learning Classroom
Existing Building Plans

Existing Conditions - Floor One
Existing Conditions - Floor 2
Conceptual Building Plans

Final Option (Floor 1)
**Final Option** (Floor 2)

- East Academic Support Center / Science Resource Center
- Partnership Center
- Corridor Renewal
- Additive Digital Manufacturing
- Faculty Offices
- Engineering Classroom

Connect to existing mezzanine
Open to Below
Area of Floor Infill
2014 FAB Lab Renovation
# East Campus Building

## Building Summary (Existing Buildings)

<table>
<thead>
<tr>
<th>Code Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occupancy Group(s) (existing)</strong></td>
<td>Type B (education above 12th grade) and Type A Occupancies</td>
</tr>
<tr>
<td><strong>Primary Space Types</strong></td>
<td>General use classrooms and faculty offices</td>
</tr>
<tr>
<td><strong>Type of Construction per current MN Building Code</strong></td>
<td>2-B</td>
</tr>
<tr>
<td><strong>Building Size (GSF)</strong></td>
<td>360,000 gsf</td>
</tr>
<tr>
<td></td>
<td><strong>Allowable Height</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Allowable Area/Floor</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Building Area</strong></td>
</tr>
</tbody>
</table>

## Building Systems (Type and Current Condition)

<table>
<thead>
<tr>
<th>Building Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roofing Type(s):</strong></td>
<td>Built-up membrane</td>
</tr>
<tr>
<td><strong>Structural System Type(s):</strong></td>
<td>Structural steel and composite deck</td>
</tr>
<tr>
<td><strong>Mechanical System Type(s):</strong></td>
<td>Hot water</td>
</tr>
<tr>
<td><strong>Electrical System Type(s):</strong></td>
<td>120/208</td>
</tr>
<tr>
<td><strong>Exterior Wall Type(s):</strong></td>
<td>Brick/Block</td>
</tr>
<tr>
<td><strong>Interior Wall Type(s):</strong></td>
<td>Metal stud with gypsum board (majority) - block</td>
</tr>
<tr>
<td><strong>Conveying Systems</strong></td>
<td>Elevators</td>
</tr>
<tr>
<td><strong>Life Expectancy of Building and Systems</strong></td>
<td>50 yr Building 30 yr Mechanical</td>
</tr>
<tr>
<td><strong>Technology Systems</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability/Alternative Energy Systems</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Hazardous Materials</strong></td>
<td>Project area contains ACM Fireproofing as well as miscellaneous ACM materials in the hood and undersink lining. Mercury is common in plumbing and cabinetry of old labs on campus.</td>
</tr>
</tbody>
</table>

## Metrics

<table>
<thead>
<tr>
<th>Metrics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Backlog</strong></td>
<td>$19,557,000</td>
</tr>
<tr>
<td><strong>Current Renewal</strong></td>
<td>$34,961,000</td>
</tr>
<tr>
<td><strong>Current FCI</strong></td>
<td>.19</td>
</tr>
<tr>
<td><strong>Current Space Utilization</strong></td>
<td>83%</td>
</tr>
<tr>
<td><strong>Proposed Space Utilization</strong></td>
<td>88%</td>
</tr>
</tbody>
</table>

## Program

<table>
<thead>
<tr>
<th>Program</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Program Adjacencies</strong></td>
<td>Fab Lab</td>
</tr>
</tbody>
</table>
Project Area Photos

1561 Autobody

1561 Autobody and 2565 Mezzanine in background

1661 Welding

Second floor corridor

Adjacent renewed corridor

First floor corridor
Project Area Photos

2523 East Academic Support Center

1665 FAB Lab Tech Shop

2523 East Academic Support Center

1665 FAB Lab Tech Shop
Physical Condition Audit
Existing Mechanical Systems

**Boilers/Heating Plant**
The campus has two central heating plants, one serving the east and one serving the western parts of the campus, which provide low-pressure steam for building heating, domestic water heating. Within the east campus there are two 600 HP steam boilers, which have the capability of burning natural gas and # 2 fuel oil. The boilers are Cleever Brooks four pass units installed during the original campus construction and capable of 20,400 lb/hour each. With the construction of the west campus boiler plant, the boiler plant generally operates on one boiler only. The plant is shut down for summer months. The boiler are in good shape and repair, but are nearing the end of their useful life.

Additional condensing boilers are located in the library mezzanine and LRC to serve VAV reheat coils.

The low-pressure steam and condensate return lines are run laterally through the campus in the high bay spaces, then branch off to the mechanical penthouses and high bay air handling equipment.

There are several underground duplex condensate return units that lift the condensate back to the overhead return system. Although original with the construction, they are reported to be in good condition.

**Mechanical Systems – Cooling**
The campus has one central chiller plant in the East Campus, but is constructing a new plant to serve the West campus due to deterioration of the distribution piping between the two campuses. The central chilled water plant is co-located with the boiler plant and consists of two 500 ton centrifugal chillers, when have been replaced since the original construction. Chilled water distribution lines are routed along with the steam and condensate lines. When the West campus chiller plant comes on line, the plant load will be greatly reduced.

**Sprinkler**
The building is currently sprinkled.

**Plumbing**
The plumbing piping and most of the fixtures in the building are original. Some fixtures are at the end of their useful life and need to be replaced. The existing eyewash stations exceed the spacing requirements of ANSI/OSHA for the shop areas.

**HVAC**
The existing systems are generally based around constant volume air handling equipment and distribution. Remodeled areas are being retrofitted with VAV systems. Makeup air systems in shop areas are no longer being operated as per design intent. Shop area air handling equipment is not installed in a manner that allows proper access for service nor in accordance with current MnSCU standards. Air handling equipment is near end of life and should be replaced as needed. Conversion to hot water heating and revision of controls and system to more energy efficient designs should be on projects going forward. High delta T/low temp heating configuration (140°/100°) has the most potential to reduce both fuel and electric energy use.

**Temperature Controls**
The controls for the building are currently all/mostly DDC. The controls appear to have been upgraded at least twice since original construction, with remnants of old pneumatics, Barber Colman Network 8000, and the current Schneider Electric/TAC I/A series system installed by UHL company. Cleaning up unused systems would improve maintainability.

**Special systems**
Dental vacuum, low pressure/high volume air tool, welding fume control, wood dust control systems appear to be in excellent condition.

Automotive tailpipe exhaust systems appear to be in good condition.

General automotive area exhaust and makeup appear to be operated manually and not under timed and/or gas detector control as would be best practice.

Autobody dust collection systems do not appear to meet the current best practices for dust control.
**Existing Electrical Systems**

*Electrical Service*

The building is fed from a 13.8 kV service that terminates in the primary switchboard in room 1408. The primary switchboard feeds substations 1, 2, and 3 located in rooms 1585, 1407, and 1325, respectively. Each substation consists of a 13.8 kV air interrupter switch, a 1000/1333 kVA step-down transformer (13.8 kV – 480Y/277 V), and a 1600 A distribution section.

A second electrical service to the building consists of a 750 kVA exterior service transformer secondary service conductors that terminate in 2000 A, 480Y/277 V switchgear located adjacent to substation 2. This service primarily feeds the chiller systems and other mechanical loads.

*Low Voltage Power Distribution*

Low voltage power distribution for the building originates at three 1600 A. These distribution systems feed distributed 480Y/277 V panel boards, transformers, and 208Y/120 V, circuit breaker panel boards throughout the building.

Grounding for feeders and branch circuits is achieved via metal raceway rather than insulated equipment ground conductors. In many cases the conduits have separated from the connectors or couplings, and the ground path is broken as a result. This is a common problem for electronic devices in use throughout the building.

*Emergency Power Distribution*

A life-safety emergency power is provided by a 170 kW natural gas generator in room 2407. A 300 ampere transfer switch connects the generator (and commercial power distribution) to a 480Y/277 V, 400 A life-safety panel board (EM). Panel EM feeds two other 480Y/277 V, 100 A panel boards (EMA and EMB) located in the west and east wings, respectively. Panel EM also feeds a 208Y/120 V, 50 A panel board (EMX) via a 15 kVA step-down transformer.

The emergency power panel boards serve life-safety loads including egress lighting, exit lights, the elevator, the fire pump, and the fire alarm.

**General Lighting**

General lighting throughout the building consists of recessed and surface-mounted linear fluorescent and compact fluorescent luminaires. Linear, 32 watt, T8 fluorescent lamps are typical. Illumination levels throughout the building are more than adequate, and lighting power densities are likely higher than what is allowed by the newly-adopted Minnesota Energy Code (2012 IECC / 2010 ASHRAE 90.1).

Lighting controls typically consist of snap switches, although occupancy sensors have been provided on a case-by-case basis as part of remodel projects. Corridor lighting is controlled by a lighting control panel located in room 2407.

Exterior lighting consists primarily of high-intensity discharge (HID) type wall packs. Lamp type and wattage could not be determined during the building evaluation, but they are assumed to be 70-watt high-pressure sodium (HPS) or metal-halide.

**Project Impact**

**Site**

This project has no impact on the site.

**COPE**

Century College does not have a current COPE report.

**Phasing**

This project will not require phasing since the college has considerable flexibility in scheduling classes in alternative locations on the West Campus and temporarily relocating the existing East Academic Support Center.

Structural floor infill, corridor work, and other work that will disrupt surrounding Autobody areas should be completed during summer break.

**Infrastructure**

There are no significant infrastructure impacts on campus utilities due to scope including only interior renovation and no change in occupancy. However, based on past experience with the College, electrical panel boards tend to be at capacity.
Security and Safety
This project does not have a considerable impact of campus security and safety. The classrooms, labs and study areas will be designed for high-visibility with ample glazing. Labs with manufacturing and other machinery will be under faculty and staff supervision.

Fire alarm and notification systems in the project area will be updated to current code.

Applicable Codes and Standards

Campus Standards
The College has building standards for plumbing fixtures, light fixtures, and building finishes. See appendix for more information.

Specialty Requirements
The following documents are available on the Construction Services website of the Department of Administration (formerly the State Architect's Office) website and should be referenced and followed throughout the project:

- Design Guidelines
- Space Guidelines
- B3 Minnesota Sustainable Building Guidelines (B3-MSBG).
- In 2008, the legislature expanded the scope of the sustainable building guidelines to include not only new construction, but also major renovations. Major renovations are defined as any renovation greater than or equal to 10,000 GSF or the complete replacement of the mechanical, ventilation, or cooling system of a building or a section of a building. This expanded applicability applies to all major renovations receiving funding from the bond proceeds fund after January 1, 2009.

The following documents are available from the facilities department at Minnesota State Colleges and Universities and should be referenced and followed throughout the project:

- Facilities Design Standards
- Project Management Manual for Design and Construction
- Space Planning Guidelines
- Signage Handbook

Applicable Codes
The editions current at the time of design and construction should be used of the following codes and standards:

- International Building Code (IBC) and State of Minnesota Amendments
- Minnesota Accessibility Code
- International Mechanical Code and State of Minnesota Amendments
- National Electrical Code and State of Minnesota Amendments
- International Fire Code and State of Minnesota Amendments
- Minnesota Plumbing Code
- Applicable State of Minnesota Statutory Requirements
- Minnesota Energy Code
Campus B3 Benchmarking Data

The MN B3 Benchmarking tool contains Century’s monthly energy data since mid-2006 (see graphs). Campus energy use per square foot fell from 2006-2012, but rose again in 2013 and 2014 to 2009 levels. Comparison to all 54 other Minnesota State campuses suggests that there is room for the campus to improve its energy efficiency.

<table>
<thead>
<tr>
<th>Rank (out of 54 campuses)</th>
<th>EUI</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUI</td>
<td>33</td>
<td>87.77 kBTU/SF/year</td>
</tr>
<tr>
<td>Cost</td>
<td>34</td>
<td>$1.23/SF/year</td>
</tr>
<tr>
<td>Baseline</td>
<td>20</td>
<td>6.1% Decrease</td>
</tr>
</tbody>
</table>

Data based on April 2015 - March 2016
Statutory Requirements for Energy

MN §16B.32, Subd 2. Energy Conservation Goals
The square footage of the renovation is less than the 20,000 sf threshold for participation in Xcel Energy Design Assistance Program. The renovation may be able to participate in the Excel Energy Efficient Buildings Program and qualify for rebates.

MN §16B.323. Cost/Benefit Analysis of Solar Energy System
Not applicable to minor renovation projects.

MN §16B.325. Sustainable Guidelines (B3)
This project exceeds the 10,000 sf threshold for mandatory B3 compliance. The campus has also expressed interest in following the B3 sustainable guidelines as an equivalence to LEED Silver Certification.

MN §16 /326. Geothermal or Solar Energy Heating and Cooling Systems
In order to reduce the impact on the environment, reduce the carbon footprint of the Campus, and meet the requirements of Minnesota State Statute 16B.32, the feasibility of using alternate energy sources should be considered. Additional information on the following systems and technologies can be found at the U.S. Department of Energy website for Energy Efficiency and Renewable Energy (http://www.eere.energy.gov).

Geothermal Energy
A geothermal heat pump system is a heating and/or an air conditioning system that uses the Earth’s ability to store heat in the ground and water thermal masses. These systems operate based on the stability of underground temperatures: the ground a few feet below surface has a very stable temperature throughout the year, depending upon location's annual climate. A geothermal heat pump uses that available heat in the winter and puts heat back into the ground in the summer. The two main types of systems include wells and horizontal loop systems. Wells are more compact, but tend to be less efficient and more costly than a loop system. Using nearby wetlands would be a possibility as well, although environmental consequences would need to be explored. The proposed facility is currently connected to the centralized campus power plant distribution system and can easily accommodate the expanded energy demands created by this project. Therefore, geothermal is not economically viable.

Photovoltaic Panels
The use of photovoltaic panels can help reinforce the institution’s commitment to sustainability, as well as showcase its Applied Technology program, Solar. As the price of photovoltaic panels continues to fall and their efficiency continues to rise, the building should be made “PV-ready” to minimize costs of installation when the technology becomes feasible. This would require structural analysis of the existing roof and likely require reinforcement. The proposed facility is currently connected to the centralized campus power plant distribution system and can easily accommodate the expanded energy demands created by this project. Therefore, photovoltaic panels are not economically viable.

Plan to Achieve B3 Compliance
Since 2004, all new Minnesota State Colleges and Universities projects funded with state bond money must follow The State of Minnesota Sustainable Building Guidelines and submit documentation both to Minnesota State and the Center for Sustainable Building Research.

The B3 Guidelines are divided into the following sections: Performance Management, Site and Water, Energy and Atmosphere, Indoor Environmental Quality, and Materials and Waste. Each area lists Required Guidelines and some have Recommended Guidelines as well. Attempts have been made to relate the B3 Guidelines to other national standards, such as the United States Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED®), while keeping sustainable goals regional in
nature.

In 2008, the legislature expanded the scope of the sustainable building guidelines to include not only new construction, but also major renovations. Major renovations are defined as any renovation greater than or equal to 10,000 GSF or the complete replacement of the mechanical, ventilation, or cooling system of a building or a section of a building. This expanded applicability applies to all major renovations receiving funding from the bond proceeds fund after January 1, 2009. A complete list of the current Guidelines and the associated workbook can be found at www.msbg.umn.edu.

Materials
Investigate the inclusion of recycled and/or low v.o.c. Materials:
- Steel and other metals
- Paint
- Carpet tiles / floor mats
- Plastics
- Countertop surfacing materials

Construction Waste Management and Recycling Program
This project will recycle or salvage for reuse a minimum of 75% on-site generated waste.
- Every effort shall be made to recycle or reuse construction waste in an effort to minimize the amount of material sent to landfills.
- Salvageable materials will be diverted whenever feasible.
- The contractor shall provide clearly labeled debris boxes for materials sorted on site.
- Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, or other factors.
- The contractor shall submit periodic waste disposal reports.

Energy Efficiency Strategies
This project provides an excellent opportunity to move toward energy reductions while also decreasing FCI. This is also the chance to gut and replace inefficient mechanical and electrical distribution, the major contributor to FCI on the Century campus. High efficiency lighting systems and HVAC controls should be used to reduce energy consumption and long-term costs while increasing comfort of students, faculty, and staff. Initiatives which will be taken to achieve this goal include:

Passive Strategies
Pursue passive strategies first and early in the design process:
- Reduce campus square footage, removing inefficient building.
- Improve access to daylight.
- Select materials and assemblies which offer the optimum balance of energy performance and life cycle material/operation/maintenance costs.

Energy Efficiency
- Choose efficient fixtures and appliances:
  - Light fixtures, lamps and ballasts in conjunction with motion and daylight sensors where feasible and beneficial.
  - Task lighting where applicable.
  - Energy Star appliances where applicable.
  - Laptop computers over desktop computers.
- Choose the most energy efficient HVAC system, possibly including:
  - Radiant Floor Heating.
  - Heat recovery systems.
  - Solar hot water system.
- Research energy conservation incentives with utility providers.

Design Initiatives to Exceed State Energy Code by 30%
By replacing fluorescent fixtures with LED fixtures and upgraded controls this project can anticipate a 50% energy savings. By replacing outdated mechanical motors and ductwork with more efficient, it is possible to achieve a 30% energy savings. The College could, independent of this project, make improvements to windows and air sealing to exceed the energy code by 30%
SECTION 5 | Financial Information - Capital Expenditures

Estimated Capital Expenditures

Size and Cost Breakdown

<table>
<thead>
<tr>
<th></th>
<th>GSF</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Renovation/Renewal</td>
<td>16,580</td>
<td>$2,265,000</td>
</tr>
<tr>
<td>New Construction</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2nd Floor Infill</td>
<td>4,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Abatement</td>
<td></td>
<td>$350,000</td>
</tr>
<tr>
<td>Contingency</td>
<td></td>
<td>$325,000</td>
</tr>
<tr>
<td>TOTAL Construction Cost</td>
<td>20,580</td>
<td>$3,940,000</td>
</tr>
<tr>
<td>Cost per SF</td>
<td></td>
<td>$191</td>
</tr>
</tbody>
</table>

Anticipated Total Project Cost

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Cost (Construction)</td>
<td>$3,940,000</td>
</tr>
<tr>
<td>Soft Costs (Fees, Furnishings, Voice/Data, Security)</td>
<td>$1,568,140</td>
</tr>
<tr>
<td>Inflation</td>
<td>$1,708,625</td>
</tr>
<tr>
<td>TOTAL Project Cost</td>
<td>$7,216,765</td>
</tr>
</tbody>
</table>

Project Cost

For detailed cost break down see electronic 2018 Capital Budget Workbook.

Construction Budget Narrative

Expected costs for small project renovations will be significantly more expensive than similar projects of larger scale. The abatement costs and second floor structural infill raise the square foot cost of this project higher than we typically see.

The budget also includes additional allowance for poor subfloor conditions, fixing non-compliant electrical wiring and data cabling, and complete gutting of mechanical distribution ducts. These conditions were discovered during the 2014 FAB Lab renovation across the hall and we anticipate similar conditions will be uncovered during this project.

General Construction (16,580 at $93/sf = $1,544,700)

Selective demolition; new composite deck floors, concrete masonry infill partitions; ACT ceiling; Paint; Carpet tile; shop durable counter tops and casework, White boards and projection screens.

Structural ($1,000,000)

Second floor infill: Steel/ concrete decking, steel beams/columns, concrete foundation

Mechanical / Electrical (20,580 at $35/sf = $720,300)

Mechanical upgrades include new ductwork distribution and controls. There will be intrusion into adjacent corridor space for connections to existing chases and ducts. Electrical upgrades included all new direct/indirect fixtures, lighting controls and occupancy sensors.

Increased electrical outlet needs for student computers and other technology will require new panel boards. Clean up and resupport of existing wiring will be required. Recent projects have required significant work to bring the electrical infrastructure up to code.

Ductwork distribution and controls; Multi-switched lighting; conduit, terminal units and wiring; Enhanced power/ data distribution at Active Learning Classroom

Renewable Energy

None

FFE ($394,000)

FFE budget includes seating, modular tables, media carts, and “smart” lecterns in all renovated classrooms. Campus standard furniture systems will be provided in private and shared offices.

Student gathering spaces will have a combination of soft lounge seating, tables and chairs for collaborative work, and quite independent work zones.

Applied technology labs include movable storage and displays, workbenches with lab grade tops, computer carts.
Communications ($197,000)

Active learning classrooms require enhanced AV equipment including wall mounted monitors for group learning stations. Additional voice/data and power locations are required for an increased use of technology within the classrooms. Overhead projectors, large drop down screens, amplification, and speakers will also be required.

Equipment and cabling per Century College standards for (2) Active Learning Classroom ($100,000), and (3) Student Study Enclaves ($30,000). Wireless access ports for student computers and devices. Clean up of existing cable infrastructure will be required. Properly supporting existing cables and adding cable management.

Security ($118,200)

Updates within the project area to bring fire alarm system up to code. Increased from standard 1% of construction cost to 3%. Existing security cabling conditions in this building typically require rewiring and/or resupporting of cables.

Security cameras and access control are required for specialty lab and shop spaces.

Upgrades to Existing Utilities

None required

Hazardous Materials Abatement ($350,000)

Asbestos abatement will be required due to ACM fireproofing. ACM mastic in floors and vermiculite in CMU cores is also common throughout campus as is mercury in old science lab areas.

Funding Source

This project will be funded with General Obligation Bonds.

Cost Histories and Estimations

The following square footage costs are based upon recent projects at that LHB has completed at Minnesota State campuses.

<table>
<thead>
<tr>
<th></th>
<th>Renewal</th>
<th>Renovation</th>
<th>Addition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$65/sf</td>
<td>$142/sf</td>
<td>NA</td>
</tr>
</tbody>
</table>

Construction Sequencing


Project Procurement and Delivery

Traditional design-bid-build delivery method.

Other Considerations

Forthcoming (95%). Budget and schedule impact for atypical considerations.
SECTION 6 | Financial Information - Ongoing Operating Expenditures

**Impact on Operating Cost**

No new operating expenditures related to this project are anticipated. The project renovates existing space and no new square footage is added. The same operating activities required for the existing space will be needed for the new space.

Utilities are projected to decrease with the improved exterior envelop of the addition and increased efficiency of the new HVAC systems.

<table>
<thead>
<tr>
<th>Current Cost</th>
<th>Projected Costs (Without Inflation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY 2018-19</td>
</tr>
<tr>
<td>Building Operating Expenses</td>
<td></td>
</tr>
<tr>
<td>Utilities (electric, gas, other)</td>
<td>1,008,000</td>
</tr>
<tr>
<td>Maintenance (routine)</td>
<td>79,000</td>
</tr>
<tr>
<td>Repairs (planned / estimated)</td>
<td>268,000</td>
</tr>
<tr>
<td>Waste removal (standard, hazardous)</td>
<td>58,000</td>
</tr>
<tr>
<td>Annual building servicing (elevators, fire, etc)</td>
<td>53,000</td>
</tr>
<tr>
<td>Lease Expenses</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>0</td>
</tr>
<tr>
<td>Real Estate (off campus) Lease Expenses/(Savings)</td>
<td>137,000</td>
</tr>
<tr>
<td>Debt Service</td>
<td></td>
</tr>
<tr>
<td>Projected Debt Service Expenses</td>
<td>588,000</td>
</tr>
<tr>
<td>Expenditure Subtotal</td>
<td>2,191,000</td>
</tr>
<tr>
<td>Revenue Offsets; attach explanation</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,191,000</td>
</tr>
<tr>
<td>Change from Current FY 2016-17</td>
<td>218,000</td>
</tr>
<tr>
<td>Change in F.T.E. Personnel</td>
<td>0</td>
</tr>
</tbody>
</table>

**Five Year Operating Budget Projection**

<table>
<thead>
<tr>
<th></th>
<th>FY 17</th>
<th>FY 18</th>
<th>FY 19</th>
<th>FY 20</th>
<th>FY 21</th>
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<tbody>
<tr>
<td>Tuition and Fees</td>
<td>29,006,000</td>
<td>29,296,000</td>
<td>29,589,000</td>
<td>29,885,000</td>
<td>30,184,000</td>
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<tr>
<td>Appropriation</td>
<td>22,950,000</td>
<td>23,180,000</td>
<td>23,412,000</td>
<td>23,646,000</td>
<td>23,882,000</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>4,801,000</td>
<td>4,849,000</td>
<td>4,849,000</td>
<td>4,849,000</td>
<td>4,849,000</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>56,757,000</td>
<td>57,325,000</td>
<td>57,850,000</td>
<td>58,380,000</td>
<td>58,915,000</td>
</tr>
<tr>
<td>Salaries</td>
<td>47,800,000</td>
<td>48,368,000</td>
<td>48,893,000</td>
<td>49,423,000</td>
<td>49,958,000</td>
</tr>
<tr>
<td>Repair &amp; Betterment</td>
<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
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<tr>
<td>Non-Personnel</td>
<td>8,457,000</td>
<td>8,457,000</td>
<td>8,457,000</td>
<td>8,457,000</td>
<td>8,457,000</td>
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<tr>
<td>Total Expenses</td>
<td>56,757,000</td>
<td>57,325,000</td>
<td>57,850,000</td>
<td>58,380,000</td>
<td>58,915,000</td>
</tr>
</tbody>
</table>
Alternative Funding Sources
Relocation costs will be paid with College funds.

COPE Findings
The College does not have any current COPE reports.

Campus Debt Capacity
The College projects a net increase of $214,097 (average of annual debt service for the first five years) on a $7.217M project, all else being equal. This debt would be added at a time that our overall debt service would be decreasing and therefore the new expenditures could be assumed within the operating budget.

<table>
<thead>
<tr>
<th></th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
<th>FY2023</th>
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</thead>
<tbody>
<tr>
<td>Debt Service in FY17</td>
<td>537,628</td>
<td>512,173</td>
<td>485,957</td>
<td>457,618</td>
<td>429,307</td>
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<tr>
<td>New Debt Service</td>
<td>262,209</td>
<td>209,286</td>
<td>204,475</td>
<td>199,664</td>
<td>194,853</td>
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<tr>
<td>Total</td>
<td>799,837</td>
<td>721,459</td>
<td>690,432</td>
<td>657,282</td>
<td>624,160</td>
</tr>
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</table>

Financial Recovery Plan
Century College is not subject to a Financial Recovery Plan.
Project Options and Phasing
Construction will begin immediately following completion of Fall 2019 term. Abatement and demolition should begin with the east side of the project area on second floor. (area of proposed Partnership Center, Academic Support Center, ECAD, and CE/CT) The worst of this work can be completed before students return for spring term in mid January.

The first areas affected are not instructional, the East Academic Support Center will need a temporary home beginning for Fall 2019.

The renovation of Welding, FAB Lab 2, and 916 space, as well as construction of the unfilled floor will begin in May 2020. These areas will be inaccessible during the summer and welding courses will not be offered for summer 2020. The renovation of these first floor lab spaces will be complete for Fall 2020.

Finishes and fit out of the Learning Commons and Engineering Classroom on second floor will occur during fall 2020 and be completed for use during spring term 2021. Once Engineering is moved into their new space, the existing engineering lab will undergo minor modifications during winter break to accommodate the Additive Digital Manufacturing Lab.

Proposed Funding Sequence
Project to receive funds from only one capital appropriation cycle.
## Project Schedule

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. Predesign</td>
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<tr>
<td>2. Consultant Team Selection</td>
<td></td>
<td></td>
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<tr>
<td>3. Design/Construction Funding Available</td>
<td></td>
<td></td>
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<tr>
<td>4. Schematic Design</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Legislative Approval (16 B Reg.)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Design Development</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Construction Documentation</td>
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</table>
Existing Technology Plan and Information Technology Infrastructure

The Century College Master Technology Plan for 2006-2011 represents an attempt to balance strategic, long-range visions for educational and administrative technology and telecommunications services at Century with shorter-term, actionable goals and projects which allow for incremental “at-a-glance” progress toward the long-range visions.

Project Impact

All new general use classrooms and instructional labs will incorporate “smart” technology as outlined in the above definitions. Providing the infrastructure and hardware for these improvements will not only benefit the academic programs in the projects, but all other programs accessing the remodeled or new spaces. By planning for “smart classrooms” in the earliest stages of design, required infrastructure can be incorporated in the project rather than retrofitting those classrooms at a later date.

Improvements to Existing and Future Infrastructure

Minnesota State Colleges and University’s 2004-2009 Capital Budget Instructional Technology/Multi Media Classroom Renovation Initiative outlines four levels of information technology in the classroom. This predesign follows the initiative’s guidelines in the construction of new classrooms, teaching labs, offices, computer labs and conference rooms. Equipment needs are based on these guidelines and include the following:

**General:**
1. 3” diameter conduit through concealed areas to media cabinets, accessible ceilings, etc.
2. Wire trays over accessible ceilings.
3. Same phase electrical power to projectors, cabinets, and teaching podiums.
4. Each space must include ADA devices appropriate to their function.
5. Media cabinets and podiums shall have equipment tailored to each space. Typical items may include the following:
   a. Computer
   b. DVD/VHS/Audio playback
   c. Document camera
   d. Laptop Hook-ups
   e. Capacity to accommodate additional devices
6. Dedicated circuits for all IT equipment in all teaching/lab/studio spaces.
7. One year warranties for all equipment.
8. A/V consultant shall coordinate directly with NCC IT personnel.
9. Installer shall provide A/V as-built documents to owner.

**Offices:**
1. Computer

**Classrooms:**
1. Passively vented built-in media cabinet at presentation end of each room.
2. Mobile teaching podium adjacent to the media cabinet.
3. Ceiling mounted projector.
4. Motorized screen with control panel near media cabinets.

**Computer Labs:**
1. Passively vented built-in media cabinet at presentation end of each room.
2. Mobile teaching podium adjacent to the media cabinet.
3. Ceiling mounted projector.
4. Motorized screen with control panel near media cabinets.
5. Computers and printers appropriate to the type of computing.

**Instructional Labs:**
1. Passively vented built-in media cabinet at presentation end of each room.
2. Ceiling mounted projector.
3. Motorized screen with control panel near media cabinets.
4. Dedicated circuit for all information technology equipment.
5. Special attention to protecting equipment from impact and dust damage.

**Audio/Video for Classrooms & Conference Rooms:**
1. Projector ceiling mounts should be provided as part of the project
2. 3 RCA (R,W,Y), S-Video, VGA should be run from the projector mount to a locations near the Instructor desk (either floor or nearest wall) and be installed in a single wall-plate or floor box.
3. Electrical receptacle should be installed near the projector mount location in ceiling.
4. Projector screens should be positioned centered in front of the white-board.
5. If speakers are requested in design, speaker-wires should run from wall-plate or floor box to locations at either side of the white-board.
6. Coax cable should be in each classroom / conference room and terminated in the buildings MDF.

**Correlation with Comprehensive Facilities Plan**

This project supports the College's goal of providing flexible technology by upgrading network infrastructure, modernizing communication tools, and integrating technology into teaching and learning spaces.

As part of this project re-supporting above ceiling cabling or installing cable management should be expected. Engaging a technology representative in the design process and review will ensure existing technology goals are met and help identify new goals for the campus.

**Voice/Data Services:**

1. All voice/data cabling should be Cat 6
2. Any room that potentially could be an office should have 4 data ports (2 on each wall that is adjacent to the door)
3. Classrooms should contain 4 network jacks at instructor stations, and 1 network jack at each student location
4. Each classroom should have 1 network jack in the ceiling near the projector mount
5. Network jacks for wireless access in common areas and down main corridors (above ceiling locations)

**Voice/Data Closets:**

1. All voice/data cables should be terminated on patch panels in free-standing racks
2. Installed feeder cables should be terminated on patch panels (one pair per port)
3. 8" vertical wire management should be installed between racks
4. Patch panels should be the split/angled panels (see 1-429 for example)
5. Coax cable from classrooms/conference rooms should terminate in data closets
6. Adequate power should be installed to support UPS systems. 1 30 AMP L5-30 receptacle per rack (based on our standard UPS system)
7. If multiple IDF locations are necessary, multi-mode fiber and copper feeder cables should connect the IDF locations to the MDF
Academic Master Plan
Attached.

Technology Master Plan
Attached.

Comprehensive Facilities
Master Plan
Relevant sections attached.
Overview of 2016 updates in progress attached.

Space Utilization Reports
Attached.

FRRM Data
Attached.

B3 Benchmarking Data
See Section 4 | Sustainability and Energy

Workforce and Demographic
Data
See Section 2 | Basis for Need and attachments.

Other Studies
- Hazardous Materials Inventory
- Century College Building Standards
- East Campus Code Review
AGENDA

Date: June 26, 2014
Re: Century College
Applied Technology Center Predesign

Pre-Design Goals
- Confirm project need as stated in the Master Facility Plan
- Confirm project scope
- Determine reasonable cost estimate
- Determine reasonable schedule
- Use document to obtain funding dollars

Process
- Committee Meetings
- “Stakeholder” Interviews
- Document Collection and Checklist
- MnSCU Review

Review Master Plan Project Description
Priority Two 2016 | Applied Technology Center
Renovation (East Campus)
Scope and Purpose: Renovate existing space and add mezzanine on Floor 2 to accommodate applied technology programs in clearly-identifiable cluster. Develop Math Learning Commons with faculty offices and study space. Enhance program visibility and collaboration across programs.
New construction: 16,000 SF (internal mezzanine)
Renovation: 11,000 SF
Sitework: 0
Project costs: $3,335,000
Project description: This project develops the first true Learning Commons, moving Math to East Campus and enabling interaction with Physics and Engineering departments. In addition to classrooms and offices, student study space and technology labs will be developed. The relocation of Math frees up offices and classrooms on West Campus for relocation of ESOL/TRIN from East. This move of language-centered programs nearer to other language departments on West allows for collaboration and sharing of resources. Vacated space could support ECAD and Engineering programs.

Century Expectations and Goals
Committee Meeting
August 6, 2014
AGENDA

PROGRESS UPDATES
- Process & Timeline
- MnSCU Guidelines
- Updates
  - 50% Submittal
  - Auto & Welding
  - Space Utilization

PROGRAM OPTIONS
- 2014 Projects
- Master Plan
- Existing Programs
- Program Location “What Ifs”

NEXT STEPS
- Collaboration & Partnership Opportunities
- Homework
PROGRESS UPDATES

UPCOMING MEETINGS

- **8/28** Faculty Meeting
- **9/5** Committee Meeting

<table>
<thead>
<tr>
<th>PROJECT PROCESS</th>
<th>2014</th>
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<tbody>
<tr>
<td>1. COMMITTEE MEETINGS</td>
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<tr>
<td>2. STAKEHOLDER MEETINGS</td>
<td>8/4</td>
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<td>3. DATA COLLECTION</td>
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<td>4. ASSESSMENT</td>
<td>9/12</td>
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<td>5. EXPLORATION</td>
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<tr>
<td>6. MnSCU DOCUMENT</td>
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</tbody>
</table>

- **JULY**
- **AUGUST**
- **SEPTEMBER**
- **OCTOBER**
- **NOVEMBER**
PROGRESS UPDATES

CAPITAL BUDGET GUIDELINES

- **Strategic Framework**
  - Ensuring access to an extraordinary education for all Minnesotans
  - Being the partner of choice to meet Minnesota’s workforce and community needs
  - Delivering to students, employers, communities and taxpayers the highest value/most affordable higher education option

- **Guiding Values**
  - A strategic regional and statewide academic program focus
  - Taking care of what we have
  - Minimizing new square footage
  - Building for the future with flexible and adaptable space

- **Charting the Future**
PROGRESS UPDATES

50% SUBMITTAL| OPTION 1

This option moves Math and Computer Science to East Campus and ESOL/TRIN to West Campus. Because ESOL/TRIN is smaller than Math, faculty offices can move from Floor 1 to Floor 3 to be near other humanities faculty. Language Lab also moves to Floor 3 and is shared with ESOL/TRIN. This opens up space for expanded Student Services and Student Organization space on Floor 1 adjacent to current Student Center.

Pros
- Math and Computer Science are near Engineering and Science, developing the Applied Technology cluster and creating synergy between programs.
- ESOL/TRIN is on West Campus adjacent to student support services and similar programs.
- High-demand space for student support services and study space can be added on Floors 1 & 3, a major need identified by the Master Plan.

Cons
- Math faculty offices and the Math Lab are not ideally located, and they don’t gain much from the move. Offices are isolated from Science.
- No new classrooms are created. The eleven recently-added classrooms would be largely taken up with Math and Computer Science classes. The room for growth and partnerships created by the past two state-funded projects is lost.
- The math offices barely fit, and are awkwardly co-located with Auto classrooms.

KEY
- 2014 Project
- Oppor  op tunity
- ESOL/TRIN
- Language Lab
- Math
- Computer Science
- Humanities Faculty
- Auto
- 916

FLOOR 1
- Faculty Offices & Student Study Space
- Language Lab
- ESOL/TRIN
- Student Services & Organizations

FLOOR 2
- Faculty Offices & Student Study Space

FLOOR 3
- Computer Science Offices
- Math/Comp Sci utilize 8 existing classrooms
- Auto & 916 Remain As-Is
- Math Offices & Math Lab
50% SUBMITTAL | OPTION 2

This option moves Math and Computer Science to East Campus and ESL/ESL to West Campus. Because ESL/ESL is smaller than Math, faculty offices can move from Floor 1 to Floor 3 to be near other humanities faculty. Language Lab also moves to Floor 3 and is shared with ESL/ESL. This opens up space for expanded student services and student organization space on Floor 1 adjacent to current student center. A mezzanine is created on Floor 2 of East Campus for Math & Computer Science classrooms and offices.

**Pros**
- The Applied Technology Learning Commons is developed by locating Math and Computer Science are near Engineering and Science. This enables increased synergies between programs.
- Usable square footage is added within existing conditioned space.
- District 916 is consolidated and Auto programs are areas improved.
- The larger scale of this project allows for replacement of outdated building systems and finishes, reducing FCI and energy costs.
- ESL/ESL is on West Campus adjacent to student support services and similar programs.
- High-demand space for student support services and study space can be added on Floors 1 & 3, a major need identified by the Master Plan.
- Engineering classrooms can expand on Floor 1.

**Cons**
- Cost of mezzanine and replacement of building systems.
- Need to relocate programs during construction.

**KEY**
- 2014 Project Opportunity
- ESL/ESL
- Language Lab
- Math
- Computer Science
- Humanities Faculty
- Auto
- 916

**East Campus| Option 2**
- Applied Technology Center
- Math/Comp Sci utilize 3 existing classrooms
- Auto Programs Renovation
- Some under mezzanine (shown dashed)
- 916 Consolidation
- Engineering Expansion
PROGRESS UPDATES

AUTO & WELDING

- Desire to see programs consolidated and better arranged
  - Cost in moving equipment
  - Systems need upgrading (venting fumes, drains, some lifts etc.)
- Concern with noise & fumes with classrooms/offices above
- Difficulty in sharing with 916
- Exodus to old K-Mart
PROGRESS UPDATES

SPACE UTILIZATION
PROGRESS UPDATES

SPACE UTILIZATION
PROGRAM OPTIONS

EAST CAMPUS
2. Applied Technology Center
B. Parking Structure
4. Advanced Technology & Design Center
5. Classroom Building

WEST CAMPUS
1. Classroom Addition
   A. Student Life Expansion
3. Learning Commons/Program Clusters
5. Classroom Building
C. Parking Structure

General Obligation Bonds
Revenue Bonds
PROGRAM OPTIONS

13| STEM
- Biology
- Chemistry
- Earth Science
- Physics
- Math

6| STEM
- Engineering
- Solar and Renewable Energy
- Fab Lab
# Program Options

## Existing Space & What If Exercise

### 2016 STEM & Applied Technology Center PreDesign

**Program Needs & Areas**

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<thead>
<tr>
<th>Room</th>
<th>#</th>
<th>Total SF</th>
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<td><strong>EAST</strong></td>
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NEXT STEPS

COLLABORATION & PARTNERSHIP OPPORTUNITIES

HOMEWORK – Making the Case

- 916| Deanne – Thanks! Also, more detail about affected programs (auto, diesel, welding, others?)
- Workforce| Jeralyn
- ABE| Andrew
- MnSCU Partnership| Brenda
- Math, ESOL/TRIN, Auto, etc?

STAKEHOLDER MEETINGS
THANK YOU!
EXECUTIVE SUMMARY

The Century College Master Academic Plan for 2005-2010 offers broad—often cross-divisional—strategic directions focusing on academic excellence, student success, diversity and global awareness, collaboration-partnerships, and educational technology.

The 2005-10 academic plan is strategic in nature and, therefore, not intended to be inclusive of the many vital on-going efforts and initiatives that contribute to the vibrant teaching and learning environment at Century College. Individual faculty, departments, and programs, along with the academic affairs administrators and staff, will continue to promote excellence through these on-going initiatives, while working hard to achieve recognized advances in the six strategic directions established with this plan.

Century College aspires to make demonstrable progress in these areas over the next five years so that by 2010 we will be

...recognized locally and nationally as a welcoming, inclusive institution with high academic standards and outcomes

...recognized as a leader throughout the state of Minnesota for our development and implementation of academic and student services and programs that encourage and support student success for an increasingly diverse student population

...recognized among students, faculty, and staff throughout the Minnesota State Colleges and Universities system and the state for our commitment to diversity and global awareness

...recognized as an integral part of the community, serving as an intellectual and cultural center for citizens

...recognized among students, faculty, and staff throughout the system and the state for our innovative commitment to all aspects of educational technology.

Incremental progress toward these over-arching goals will be measured and tracked through the development of innovative and ambitious action projects on an annual basis. A Master Academic Plan Annual Report will be distributed beginning in the fall of 2007 to celebrate accomplishments and ensure that continued progress has been achieved.
Planning Statement.

The development of the Century Master Academic Plan for 2005-2010 is unprecedented both in the process followed and the final product created. In marked contrast to the previous Century College academic plan, which was more operational in nature, the 2005-2010 plan articulates strategic directions that are broad in scope and cross-divisional in nature.

The decision to approach academic planning in such a different fashion is animated by a desire to develop a five-year plan that is a dynamic document intended to capture a consultative and ambitious on-going process. This goal intentionally defies the acknowledged reality, that plans of this kind too often are static documents seldom revisited after they are written.

Along with attempting to be less operational in focus and more consultative in development, the plan is also intended to be more integrated in nature. On the one hand, more integrated planning should follow from the planning changes Century College has implemented—such as creating a Century Planning Committee to oversee and integrate all planning activities. On the other hand, the academic plan itself is more fully integrated because it is intentional linked with other campus plans and because the initial Century Master Academic Planning Committee includes representation well beyond the academic affairs division (see Appendix D for a membership list and committee charge).

The Century Master Academic Plan is comprised of three unique components:

**Strategic Directions**

At the highest level, six strategic directions have been developed by the Century Master Academic Planning Committee. These directional areas are intentionally focused on neither operational exigencies nor implementation strategies. Organizing the master plan around higher-level directions works to ensure that the plan does not become out-dated before reaching 2010 as a result of the dynamic nature of change in the higher education landscape.

The Century Master Academic Planning Committee has agreed on the following six strategic directions for the five year planning period:

- Academic Excellence
- Student Success
- Diversity and Global Awareness
- Collaboration-Partnerships
- Educational Technology
- Continuous Improvement.

It is critical to recognize that these focus areas are strategic and, therefore, not intended to encompass either the broad array of campus operational functions or all the other planning goals and initiatives actively pursued across the campus. For example, both the academic affairs and continuing education/customized training divisions are committed to on-going curriculum
review, new curriculum development, professional development, and other activities regardless of whether they are included in the Master Academic Plan.

The Century Master Academic Planning Committee deliberated at some length about adding a strategic direction that articulated a commitment to innovation across the academic enterprise. However, it was eventually agreed that, though innovation is acknowledged to be integral to success in nearly every area, there was no need to make this an independent strategic direction. The fact that it is a broadly understood imperative that is infused across all endeavors made a compelling argument for this decision.

Having said that the strategic nature of this plan is not inclusive of all activities, the Century Master Academic Planning Committee also recognizes that the stated strategic directions are ambitious and will necessarily affect the resources available for other efforts, given the realities of finite funding and limited resources. The committee asks those responsible for carrying out the various initiatives to advance them ambitiously but judiciously, serving as responsible stewards of limited resources.

**Goals**

For each strategic direction, a limited number of goals have been developed to provide more concrete and measurable indicators of success. By 2010, the goals established to support each strategic direction should be achieved and should directly improve the teaching and learning environment at Century College.

**Action Projects**

The Century Master Academic Planning Committee agrees that it is important to ensure that the master plan continues to be an active, flexible document. As a result, this planning document provides a fundamental framework for achieving planning goals. As dynamic changes occur, it will be necessary to remain flexible when developing implementation strategies. Therefore, action projects will be determined each year in conjunction with the budget development process at Century College. Action projects will be developed for each goal (e.g., AE Goal 1, DG Goal 4) and will identify specific projects that will be accomplished during the following academic year. Action projects will be designed using the standard template (Appendix A) agreed to by the Century Master Academic Planning Committee in order to ensure that all projects include consistent components, including identification of project sponsors, leads, team members and clearly stated milestones, resources, and target completion dates.

To ensure that the development of action projects includes input and support from all parties, these projects will be developed in consultation with a new Teaching and Learning Standing Committee with representation across divisions.
Process/Consultation Summary

The Century College Master Academic Plan for 2005-2010 is intended to be consultative in the development of its structure, content, and implementation. To avoid creating a plan that is seen as a “top-down” effort, the Century Master Academic Planning Committee included representation from faculty (including the MSCF president and grievance representative), other divisions, and students, as well as academic affairs administrators.

This broad stakeholder group was created to ensure that the final product reached out across traditional organizational structure to an unprecedented degree with the intention of creating a dynamic, integrated plan that both reflects and affirms the centrality of teaching and learning in the college’s mission, vision, and planning goals. The Century Master Academic Planning Committee agreed on the overall process and structure of the plan. After reviewing the database of department and program duty day planning activities, the committee established the six strategic directions. In addition, the committee worked to create an initial provisional draft by the February 1st deadline necessitated by the AQIP process with the expectation that it would be further refined by the Century Planning Committee and other broadly inclusive campus groups.

Annual Century Master Academic Plan Action Projects will be developed in consultation with the Teaching and Learning Standing Committee to ensure there is enough consultation with faculty and cross-divisional stakeholders to guarantee both buy-in and a sense of shared responsibility.

Plan Alignment

It is considered critical that the strategic directions established with this plan are in alignment with system-level planning from the Office of the Chancellor and the Century College mission, vision, and planning goals. As a result, each strategic direction includes a statement of alignment to underscore the integrated nature of the master plan. In addition, the Century Planning Committee has been charged with reviewing all college plans specifically to reinforce and promote further integration and mutual support.

The chart on the next page shows the direct alignment of Century Strategic Directions and Goals with the stated strategic directions of the system strategic plan covering the same planning period.
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<tr>
<th>System-Level Strategic Planning Focus for 2006-2010</th>
<th>Century College Strategic Goals: 2006-2010</th>
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<tr>
<td><strong>System Strategic Direction #1:</strong> Increase Access and Opportunity</td>
<td>SS1: At-Risk Student Interventions</td>
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<td>SS2: Develop Coordinated System to Provide Financial Information and Resources</td>
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<td>SS3: Consider Class Size and Appropriate Use of Learning Spaces</td>
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<td>SS4: Build Computer and Information Literacy Skills</td>
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<td>SS5: Add Life Plan Advising/Mentoring</td>
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<td>AE1: Assessment of For-Credit Offerings</td>
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<td>AE2: Assessment of Non-Credit Offerings</td>
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<td>AE3: Faculty Development and Professional Growth</td>
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<td>AE4: Resources to Promote Excellence</td>
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<td>AE5: Commitment to Continuous Improvement/New Program Development</td>
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<tr>
<td></td>
<td>AE6: Improve CCSSE Benchmark Scores Compared to National/System Norms</td>
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<td></td>
<td>DG4: Create Office of Global Education/Infuse Global Awareness into Curriculum</td>
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<tr>
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<td>ET4: Expand E-Services</td>
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<tr>
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<td>CI1: Inventory, Review, and Assess Support Services</td>
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<tr>
<td></td>
<td>CI2: Periodically Review Operations for Efficiency/Value</td>
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<td>CI3: Support AQIP Initiatives</td>
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<td><strong>System Strategic Direction #3:</strong> Provide Programs and Services Integral to State/Regional Economic Needs</td>
<td>CP1: Strengthen Partnerships and Add Joint Initiatives to Become Intellectual/Cultural Resource</td>
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<td>CP2: Strengthen Partnerships and Add Joint Initiatives to Improve Economic Development</td>
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<td>CP3: Expand Joint Initiatives with K-12 Schools/Districts and Other Higher Education Institutions</td>
</tr>
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<td><strong>System Strategic Direction #4:</strong> Innovate to Meet Current and Future Educational Needs Efficiently</td>
<td>CP4: Collaborate Internally to Promote Efficiency and Meet Learner Needs</td>
</tr>
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<td></td>
<td>ET1: Improve Online and Web-Enhanced Offerings</td>
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<tr>
<td></td>
<td>ET2: Offer Associate of Arts Degree Fully Online and Other Fully Online Awards</td>
</tr>
<tr>
<td></td>
<td>ET3: Ensure Adequate Technology Enabled Classrooms</td>
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<td></td>
<td>ET4: Faculty and Staff Support and Professional Development/Training Available Online</td>
</tr>
<tr>
<td><strong>System Guiding Principles:</strong></td>
<td>DG1: Expand Efforts to Promote Diversity</td>
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<tr>
<td>* Promote Global Competency</td>
<td>DG2: Expand Efforts to Promote Global Awareness</td>
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<tr>
<td>* Advance Diversity</td>
<td>DG3: Expand Recruitment Efforts for Diverse Faculty</td>
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<td></td>
<td>DG4: Create Office of Global Education/Infuse Global Awareness into Curriculum</td>
</tr>
</tbody>
</table>
ACADEMIC EXCELLENCE

In 2010, Century College will be recognized locally and nationally as a welcoming, inclusive institution with high academic standards and outcomes.

STUDENT SUCCESS

By 2010, Century College will be recognized as a leader throughout the state of Minnesota for our development and implementation of academic and student services and programs that encourage and support student success for an increasingly diverse student population.

DIVERSITY AND GLOBAL AWARENESS

By 2010, Century College will be recognized among students, faculty, and staff throughout the system and the state for its innovative commitment to diversity and global awareness.

COLLABORATION-PARTNERSHIPS

By 2010, Century College will be recognized as an integral part of the community, serving as a valued intellectual and cultural resource for citizens and a positive force for economic development.

EDUCATIONAL TECHNOLOGY

By 2010, Century College will be recognized among students, faculty, and staff throughout the system and the state for its innovative use of educational technology.

CONTINUOUS IMPROVEMENT

In 2010, Century College will be more visibly committed to systematic continuous improvement in teaching and learning.
ACADEMIC EXCELLENCE

In 2010, Century College will be recognized locally and nationally as a welcoming, inclusive institution with high academic standards and outcomes.

Environment

Century College is committed to nurturing and supporting academic excellence in its curriculum, disciplines, and programs. This commitment to excellence is faculty driven and touches all aspects of academics, including, but not limited to, curricular excellence, program excellence, commitment to a discipline, and commitment to quality instruction. To support this effort, the administration of the college has historically made a strong commitment to support, encourage, and reward excellence. In this highly competitive, global educational market, these commitments are essential. Along with ensuring an infrastructure of academic support, the college is committed to upholding high academic expectations for our students.

Century College will have/will see significant facilities improvements during the period of this academic plan, including the new Kopp Technology Center, renovations to existing lab space, and a new Science and Learning Resource Center building. These new state-of-the-art facilities will significantly support the academic excellence goals that follow.

Mission and Alignment

This commitment to academic excellence is expected across the college. Our three mottos of *We Want You Here*, *Nothing But the Best*, and *Learning is Central* all imply a commitment to academic excellence. It should be noted that this commitment to excellence is consistent with our mission to be an inclusive, welcoming environment. This commitment to academic excellence reinforces that mission by providing an environment in which students are both challenged and supported. The environment and commitment to excellence is reflected in our Academic Quality Improvement Program (AQIP) action plan for assessment.

Academic Excellence directly supports the Minnesota State Colleges and Universities strategic direction related to high quality learning programs.
2010 Goals for Academic Excellence

The following goal statements describe the intended achievement by the year 2010:

Goal AE 1 - Academic programs and disciplines at Century College will examine assessment data annually to ensure the highest standards are being met and that they are responsive to student needs, fiscally sound, producing well prepared graduates, remaining true to their discipline or industry standards, and meeting employer or transfer needs. Every three to five years, programs will undergo a comprehensive assessment and revitalization of their curricular offerings.

Goal AE 2 - Continuing Education and Customized Training offerings at Century College will examine assessment data annually to ensure the highest standards are being met and that they are responsive to student needs, fiscally sound, producing well prepared graduates, remaining true to industry standards, and meeting employer and employee needs. Every three to five years, programs will undergo a comprehensive assessment and revitalization of their curricular offerings.

Goal AE 3 - The academic faculty at Century College will be known for their commitment to demonstrated personal and professional growth as reflected in their professional improvement plans, which will be revised and submitted to their dean annually.

Goal AE 4 - The administration at Century College will demonstrate its support for academic excellence through funding for awards for excellence, faculty training, supplies, and equipment.

Goal AE 5 - Century College is committed to excellence and continuous improvement in its program development and revitalization. A structured, continuously monitored and revised process for program revitalization and new program development will be created that includes analysis of data (placement rates, enrollments, costs, employment trends, etc.), concrete goals and timetables, collaboration with CE/CT to “pilot” ideas and provide input, a new program development team (consisting of representatives from marketing, admissions, counseling, CE/CT, administration, and faculty), adequate investment funding to insure success, and regular assessment and evaluation of progress.

Goal AE 6 – Century College will see improvements between 2005 and 2010 in the Community College Survey of Student Engagement (CCSSE) scores for student engagement in all five benchmark areas relative to national and Minnesota peer group norms. The five benchmark areas in 2005 are as follows: Active and Collaborative Learning, Student Effort, Academic Challenge, Student-Faculty Interaction, and Support for Learners.
STUDENT SUCCESS

By 2010, Century College will be recognized as a leader throughout the State of Minnesota for its development and implementation of academic and student services and programs that encourage and support student success for an increasingly diverse student population.

Environment

Century College serves an increasingly diverse student population. Student success, the main purpose of Century College, consists of each student establishing and accomplishing personal educational goals. Students may learn skills, content, and perspective in preparation for transfer to another educational program/university, entrance into a job with subsequent establishment of a career, career advancement, and living as a citizen, family member, volunteer, or person of leisure.

Mission and Alignment

In the college’s mission statement, Century College makes a commitment to providing quality lifelong educational opportunities in a learning-centered community for a diverse citizenry. Additionally, the college’s Values Statements include a commitment to “ensuring individual and community learning needs are addressed, programs and services are current and relevant, and the college is flexible and proactive.” Goals related to student success also are supported by the college’s concerted work to address identified shortcomings and challenge areas evident from the administration of the CCSSE and Noel Levitz surveys.

In addition, the work plans for the Minnesota State Colleges and Universities (MnSCU) system and Century College include expectations/goals related to student success that support increasing student access to, and successful completion of, expanded and/or newly developed high-quality learning opportunities. The system has developed an accountability indicators that track three measures of student success: retention, graduation, and transfer, and the Century College Retention Task Force (April, 2004) has advanced recommendations for retention and student success strategies from ideas shared during college-wide conversations. Finally, the focus of Century College’s student success AQIP action project is student retention.
2010 Goals for Student Success

The following goal statements describe the intended achievement by the year 2010:

Goal SS 1 – Century will continue to explore and implement additional strategies for early identification of and interventions with students at risk for academic difficulty (including those on academic probation).

Goal SS 2 - A coordinated system that provides needed information and resources for students will be developed. For example, the system could include any or all of the following:

- a book voucher system that enables all students to have textbooks at the start of the semester
- increased Random Acts of Kindness funding
- job search assistance
- expanded information sessions about areas of interest/need, such as
  - financial issues and aid
  - the importance of health and wellness for academic success
  - medical insurance/health services
- affordable childcare for infants and toddlers on campus
- enhanced advising component for students who meet certain criteria
- expansion of child care services for students.

Goal SS 3 – The college will determine class size and develop classroom/laboratory spaces that allow varied instructional methods and support the accommodation of different student learning needs. Facilities Planning Note: Add to facilities planning development of physical learning environment (i.e., classrooms, labs/centers, and study spaces) that supports the varying and diverse needs of our student population.

Goal SS 4 – Century will explore and implement strategies for early identification of students with limited computer and information literacy skills—especially at-risk students—followed by short-term intensive training that will prepare students to function in web-enhanced courses, do basic word processing, use the web as a research tool, and access their student information.

Goal SS 5 - Appropriate strategies will be considered/implemented to assist students with the development of personal life plans related to personal goals, career planning, education goals, and so on.
COLLABORATION-PARTNERSHIPS

By 2010, Century College will be recognized as an integral part of the community, serving as a valued intellectual and cultural resource for citizens and a positive force for economic development.

Environment

To realize our full potential and to serve our community, Century College must extend beyond its own boundaries and forge partnerships with businesses, industries, K-12 and Intermediate districts, government agencies, cultural institutions, and communities. Such partnerships offer many benefits to the college as well as the state and its citizens. Century College simply cannot operate successfully in isolation. The changes in funding from both the financial aid stream and the funding from Minnesota legislated funds have increased the pressure to find creative funding sources through partnerships and collaborations.

Century College currently participates in sixteen types of partnerships and joint initiatives with workforce centers, Minnesota Job Skills Partnerships, other higher education institutions--both private and public, school districts, trade associations, government agencies, and private foundations. These initiatives provide external validation for our products and services, energy for new initiatives, and opportunities for students to engage in service learning experiences.

Mission and Alignment

The commitment to strategic partnerships and joint initiatives aligns with the Century College mission of providing “lifelong educational opportunities for a diverse citizenry.” The new strategic direction of the Minnesota State College and University System includes the directive to “provide programs and services integral to state and regional economic needs,” including “identifying economic development priorities; contributing artistic, cultural, and civic assets that attract employees and others; and developing each institution’s capacity to add value to its region.”


2010 Goals for Collaboration-Partnerships

The following goal statements describe the intended achievement by the year 2010:

Goal CP 1 - Century College will strengthen current partnerships and develop new joint initiatives to add value and serve as an intellectual and cultural resource.

Goal CP 2 - Century College will increase in quality and quantity its partnerships and joint initiatives with multiple organizations by working together to improve economic development (e.g., industries, private sector businesses, government agencies, community agencies, and foundations).

Goal CP 3 - Century College will increase in quality and quantity its joint initiatives involving higher education institutions and systems, K-12 schools, and Intermediate Districts.

Goal CP 4 - Century College will intentionally collaborate among disciplines, departments, and divisions to maximize resource utilization and serve the individual learner and the community.
DIVERSITY AND GLOBAL EDUCATION

By 2010, Century College will be recognized among students, faculty, and staff throughout the system and the state for its innovative commitment to diversity and global awareness.

Environment

Demographically, Century College students have become increasingly diverse. In fact, while the White Bear Lake area population is approximately 6.4% diverse (http://www.co.washington.mn.us/), the College has over 20% representation from diverse groups. The representation of faculty and staff has not matched this pace. It is fully expected that diverse population growth will continue well beyond the 2005-10 period. Data on the current levels of participation in the global education certificate and numbers of students who study abroad while at Century are not readily available, since the certificate was first made available in the 2005-06 academic year. There are currently over 100 international students from over 40 countries at the college.

The college has made a considerable commitment to diversity efforts, ranging from bringing national speakers to campus, funding the presidential fellowship program and SEED, and including diversity goals in the college work plan.

The current investment in global education includes 4 credits of release time for the global education coordinator (faculty) and a small budget. There is significant interest in and advocacy for global education and diversity among the faculty and staff at Century College with active global education and diversity committees and strong support from academic affairs administration.

Mission and Alignment

The college’s mission statement directly promotes diversity, which is a critical part of Century’s identity. In addition, the college’s value statement includes a commitment to “respecting all individuals, accepting differences, promoting inclusiveness, and enriching the learning experience.”

Furthermore, the college work plan supports diversity in several initiatives, including those mentioned above, and the college also has an affirmative action plan that supports a more diverse faculty and staff.
Beyond the college, the Minnesota State Colleges and Universities system cites the desire to “advance diversity” and “promote global competency” among the guiding principals of the statewide system. At the highest level, the national accrediting body for the college is similarly unambiguous in its advocacy of diversity:

*The Commission recognizes that much of the vitality that characterizes the higher education system in the United States is derived from the diversity found within the universe of organizations that comprise it. The Commission further recognizes that the diversity inherent among the people of the United States enriches American higher education and contributes to the capacity that students develop for living in a culturally pluralistic and interdependent world.*


### 2010 Goals for Diversity and Global Awareness

The following goal statements describe the intended achievement by the year 2010:

Goal DG 1 - Participation in activities that advance diversity on campus and create a more welcoming environment for multi-cultural students will increase.

Goal DG 2 - Participation in activities that develop global awareness among faculty, staff, and students will increase by 2010 (e.g., Global Education Certificate completers, students participating in study abroad, and international students coming to Century).

Goal DG 3 - Century College will be recognized for making innovative efforts at recruiting diverse faculty and staff consistent with the college’s affirmative action plan.

Goal DG 4 - An Office of Global Education will be created by 2010 to encourage international study, infuse intercultural themes in appropriate ways into the curriculum, create a physical presence for students interested in global study and global awareness, and develop/expand partnerships with other organizations related to international education.
STRATEGIC DIRECTION FIVE: EDUCATIONAL TECHNOLOGY

EDUCATIONAL TECHNOLOGY

By 2010, Century College will be recognized among students, faculty, and staff throughout the system and the state for its innovative use of educational technology.

Environment

Across higher education, the deployment of emerging educational technology has expanded in the past decade. Classes now heavily rely on data projectors and other technical devices—not to mention the extensive use of the internet and email by students and faculty alike. Instructional management systems such as Desire2Learn are being used to supplement traditional instruction and to offer web-enhanced and completely online courses. Today’s students often need the flexibility in time and learning styles that online learning offers. During spring semester of 2005, 22 courses (some with multiple sections) were offered online. One year later, 35 courses are being offered.

With the completion of a major remodeling project (Kopp Technology Center), future remodeling projects (including various allied health laboratory spaces), and the expected new Science Resource Center, we have an opportunity to design spaces with a view toward creating an effective and state-of-the-art learning environment. Such design should include considerations for the appropriate use of educational technology.

Century College has made a commitment to supporting the use of educational technology to enhance the learning experience for students. Staff have been added, and the organization has been strengthened to deepen the support given to faculty, staff, and students. For example, an Instructional Designer has been hired, and the Center for Educational Technologies, along with the Educational Technologies Advisory Committee, has been established.

In partnership with Academic Affairs, many areas of the college are increasing their support of technology. Online student services are being developed so that essential services can be provided to students in this way. CenturyDirect provides students with an email account (and thus access to faculty and vice-versa) and file storage, among other features.

Mission and Alignment

The Century College Work Plan includes action steps pertaining to expanding and integrating electronic learning and technology into the institutional environment. Specific items range
from the offerings of online courses, certificates, and degrees; improving e-student services; and implementing new hardware and software for increased efficiency. In addition, one of the current AQIP action projects centers on the delivery of student services online. Finally, the system strategic plan stresses the use of innovative approaches to educational needs.

2010 Goals for Educational Technology

The following goal statements describe the intended achievement by the year 2010:

Goal ET 1 - A variety of courses will be offered in both fully online and web-enhanced formats to meet student learning and lifestyle needs and to expand access to Century curriculum. Online, web-enhanced, and traditional courses will all share the same high quality standards and employ best pedagogical practices.

Goal ET 2 - Century will offer a viable associate of arts degree fully online, as well as an increasing number of other awards.

Goal ET 3 - A full array of classrooms with various technology capabilities will be available with designs that reflect attention to learning needs and technology usage. Facilities and IT Planning Note: Incorporate technology-enhanced classroom components into planning.

Goal ET 4 - Online tools and resources will improve the ability of all students to find useful information and receive interactive help for learning needs and student services needs. Most online student services will exceed the WCET “generation two” benchmark.

Goal ET 5 – Faculty and staff support, development/training opportunities, and student support will be available. Ideally, this support will have a physical and virtual presence, including meeting space, multimedia production capabilities, online training, and resources. The college will promote research and implementation of educational technologies to support teaching and learning in a variety of venues. Facilities and IT Planning Note: Incorporate space, staff, and resources into planning.
CONTINUOUS IMPROVEMENT

In 2010, Century College will be more visibly committed to systematic continuous improvement in teaching and learning.

Environment

Century College has been committed to on-going improvement in the past; however, as the college launches the transition to the AQIP process, much more attention is being given to incorporating systematic processes for recognizing and promoting on-going improvement.

The college work plan has worked to ensure continuous improvement, and the new Century Planning Committee has been formed to ensure an integrated approach to planning while the AQIP process creates an environment of on-going action projects dedicated to continuous improvement.

Mission and Alignment

Continuous improvement is a stated focus of the AQIP process. The emphasis is also in direct alignment with the system strategic Guiding Principles, which include “demonstrating accountability” and “pursuing quality and continuous improvement.” In addition, the 2006-10 strategic directions include a new strategic direction focusing on innovation, a strategic emphasis whose focus on quality improvement is very much aligned with the college’s continuous improvement goals.

2010 Goals for Continuous Improvement

The following goal statements describe the intended achievement by the year 2010:

Goal CI 1 – The college will regularly inventory, review, and assess the mix of teaching and learning-related support services—both credit and non-credit

Goal CI 2 – The college will periodically review operations to identify opportunities for improving efficiency/increasing the value of services to students (resource savings will be re-deployed to support other strategic areas in the Master Academic Plan)
Goal CI 3 – AQIP initiatives across the teaching and learning enterprise will be actively supported, including sharing of best practices and developing a culture of project management to ensure timely completion of projects.
# APPENDIX A
## ANNUAL ACTION PROJECTS TEMPLATE

<table>
<thead>
<tr>
<th><strong>Strategic Direction</strong></th>
<th>[reference specific strategic direction this action step supports from CMAP]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL</strong></td>
<td>[reference specific goal from CMAP]</td>
</tr>
<tr>
<td><strong>ACTION PROJECT</strong></td>
<td>Brief title for the action project that directly advances the above goal and category.</td>
</tr>
<tr>
<td><strong>DESCRIPTION</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT SUMMARY</strong></td>
<td>Paragraph summary of project.</td>
</tr>
<tr>
<td><strong>PROJECT SPONSOR</strong></td>
<td>Title (not name) of project sponsor, must be Executive Cabinet member</td>
</tr>
<tr>
<td><strong>PROJECT LEAD</strong></td>
<td>Title (not name) of project lead, usually a full cabinet member; the lead is the project manager and key accountable individual</td>
</tr>
<tr>
<td><strong>PROJECT TEAM</strong></td>
<td>List members of the project team (must include representatives of all key stakeholders across divisions)</td>
</tr>
<tr>
<td><strong>START DATE</strong></td>
<td>Date project will be started (MM/DD/YY)</td>
</tr>
<tr>
<td><strong>COMPLETION DATE</strong></td>
<td>Date project will be completed (MM/DD/YY)</td>
</tr>
<tr>
<td><strong>RESOURCES</strong></td>
<td>Have all necessary resources (e.g., funding, staffing, infrastructure, facilities, training) been identified for this project? If not, has Executive Cabinet committed to provide resources for this project? Note: Annual master planning projects should not go forward without funding identified.</td>
</tr>
<tr>
<td><strong>MILESTONES</strong></td>
<td>Concrete milestones for project including the following for each: (a) deliverable for the given milestone (b) target date (MM/DD/YY), (c) dependencies (action required outside the project) and accountable contact for each dependency.</td>
</tr>
<tr>
<td><strong>CELEBRATION</strong></td>
<td>Plans for celebrating completion of the project.</td>
</tr>
<tr>
<td><strong>NOTES</strong></td>
<td>Document any additional information needed.</td>
</tr>
</tbody>
</table>
CENTURY PLANNING COMMITTEE CHARTER AND MEMBERSHIP
August 15, 2005 Draft

Committee: Century Planning Committee (CPC) has been formed as a combination of the previous Academic Quality Improvement Program (AQIP) and Continuous Quality Improvement Task Force (CQITF). The committee is co-chaired by the academic vice president and director of planning, institutional effectiveness and resource development. The academic vice-president will be the primary chair for AQIP areas of responsibility, and the director of planning, institutional effectiveness and resource development will be the primary chair for planning and institutional effectiveness.

Membership: Representation from all key college stakeholders. Changes in membership may be made with the agreement of co-chairs and the consensus of the members. Members for Fall 2005:

- Director of Planning, Institutional Effectiveness, and Resource Development (Jo M)
- Academic Vice President (John O) and 2 Academic Deans
- Finance Vice President (Paul P)
- Student Services Vice President (Mike B)
- CE/CT Vice President (Mary M)
- Institutional Research (Joan H)
- Chief Information Officer (Terry M)
- Students (2 selected by MSCSA)
- *Faculty (2 selected by MSCF; recommendation: _______________ and _______________). It is recommended that the appointment priority for faculty or the At-Large Representatives be the chairs of or faculty members of the General Education Assessment Committee and Academic Standards Committee.
- MAPE (1 selected by MAPE; recommendation: _______________)
- MMA (1 selected by MMA; recommendation: Herbert K)
- AFSCME (1 selected by AFSCME; recommendation: _______________)
- *Academic/Student Services/Continuing Education/Customized Training Deans (4 selected by president)
- HR Director (Betty M)
- *At-Large Representatives (up to 4 selected by president; may include at-large faculty (chosen in consultation with MSCF), staff, students, or administrators)
- Community Representative (1 selected at the discretion of the president)

The appointments of individuals in these categories (*) will be made through two or three-year staggered appointments to provide continuity within these classifications on the committee.

Reporting: Committee makes recommendations on a consensus basis to the Century College president on college-wide planning. The CPC will create working groups, sub-committees, task forces, or other ad hoc groups as necessary.

Overview: The CPC is the high-level committee responsible for providing crucial input to the president on college-wide planning efforts.

Responsibilities:

1. Provide development, oversight, coordination and reporting of AQIP Action Projects and activities including events, development and maintenance of the Institutional Portfolio and coordination of all AQIP reporting functions.
2. Create and track necessary subcommittees, working groups, or task forces related to college planning
3. Promote and ensure coordination, integration, and communication among various planning efforts, including the college biennial work plan and strategic plans
4. Develop a planning template to ensure participation, communication, measurable deliverables, identification of lead responsibility, and dependencies
5. Promote tracking of progress on planning efforts, indicators, measures, evidence-gathering
6. Make recommendations on budget, resources, and ensure linkages
7. Provide input on prioritization of initiatives as appropriate
8. Promote data-based decision-making to support college mission without diminishing innovation in the process or lessening the creative imagination with which the college approaches challenges and opportunities
9. Promote a vibrant culture of conversation around college planning
10. Review progress of various college plans (e.g., enrollment management, academic, facilities, technology). Minimally, the CPC will review drafts of completed plans and respond/make desired recommendations to the president; ideally, this review will include review of a pre-planning proposal to allow input at both the initial and final planning stages. The purpose of this review is to make plans more effective through review, but the most important purpose is for the committee (which will review all plans) to ensure integration among all college-wide plans to the extent possible.
11. Other responsibilities as requested by the president and/or the executive committee.
APPENDIX C
CENTURY MASTER ACADEMIC PLANNING COMMITTEE

Caleb Anderson, Student
Victoria Kurk, Student
Brenda Lyseng, Academic Affairs
Mark Felsheim, Academic Affairs
Mary Parenteau, Academic Affairs
Susan Ehlers, Academic Affairs
Jeralyn Jargo, Academic Affairs
Jane Nicholson, CE/CT
Carrie Kostroski, Faculty Appointed by MSCF
Phyllis Ballata, Faculty Appointed by MSCF
Lynda Goerisch, Faculty Appointed by MSCF
Elliot Wilcox, Faculty Appointed by MSCF
Jo Matson, Institutional Research/Planning
Tiffni Deeb, IT
Mike Bruner, Student Services
Christine Paulos, Student Services
Janet Wacker, Student Services
APPENDIX E
SYSTEM STRATEGIC PLAN FOR 2006-10

A copy of the Minnesota State Colleges and Universities system strategic plan from 2006-10 is available on the web at

http://www.mnscu.edu/media/publications/pdf/strategic_plan_06_10findraft.pdf

It is attached below:
System Strategic Plan 2006-2010
Final Draft
Approved by the Board of Trustees, January 19, 2006

Ten years ago, Minnesota created a new system of public higher education by merging formerly separate systems of community colleges, technical colleges and state universities. Over the past decade, these institutions educated 1.2 million students. In addition to that achievement, the system devoted major efforts to bring our organizational climate, policies and administrative systems in line with the merger. That work continues, but we are now poised to take advantage of our collective strength to meet the challenges of the new century.

With that history in mind, we are pleased to present the system strategic plan for 2006 ñ 2010. This plan grows out of the previous three-year plan, retaining strategic directions in access and opportunity, quality and economic development of our state.

The new fourth strategic direction focuses on innovation. We see the challenges in global competition, other important demands on state resources and the growing recognition that virtually all young people will need higher education for career and life success. Innovation throughout the system, by the Board, by system leadership and by all faculty and staff, will be essential to achieving the quality, efficiency and capacity that Minnesota deserves.

Robert H. Hoffman, Chair
McCormick, Chancellor
January 2006

James H.
Vision

The Minnesota State Colleges and Universities will enable the people of Minnesota to succeed by providing the most accessible, highest value education in the nation.

Mission

The Minnesota State Colleges and Universities system of distinct and collaborative institutions offers higher education that meets a wide range of individual learners’ personal and career goals, enhances the quality of life for all Minnesotans, and sustains vibrant economies throughout the state.

Guiding Principles

- Provide affordable access
- Focus on student success
- Work collaboratively and in partnership
- Advance diversity
- Promote global competency
- Practice stewardship
- Encourage innovation
- Demonstrate accountability
- Provide value
- Pursue quality and continuous improvement
- Meet community and workforce needs
Strategic Direction 1: Increase access and opportunity

Access and opportunity are fundamental to Minnesota State Colleges and Universities. Many of our institutions were founded to serve the sons and daughters of farmers and Main Street store owners. Today, that commitment continues as new generations of Minnesotans look to higher education to advance their careers and contribute to their communities.

Goal 1.1
Raise Minnesotans’ participation and achievement in post-secondary education by meeting the needs of students with diverse backgrounds and educational goals

Minnesota must increase the numbers of people with education beyond high school. Recently, the Citizens League called for an expectation that every Minnesotan should attain at least two years of post-secondary education. The Minnesota State Colleges and Universities system, which enrolls 61 percent of the state’s undergraduates, is key to bringing more people to higher education and to increasing the number of graduates. Growth in educational attainment can happen only if our institutions find ways to enroll and graduate many more students from populations historically underserved by higher education. Equity in educational attainment is increasingly important to our state’s future.

Goal 1.2
Maintain an affordable cost of attendance for Minnesota residents

Minnesota State Colleges and Universities have long been an affordable way for students to attend college, and our tuition and fees remain lower than those of other institutions in the state. However, the cost of education is a significant barrier to enabling more Minnesotans to attend college. When our students graduate, they face mounting debt burdens. Our commitment to this goal requires us continually to examine the impact of cost on the ability of students to afford our institutions and to develop solutions to maintain affordability, especially for students from low income families.
Goal 1.3
Work with other organizations to prepare all young people to graduate from high school and enroll in college ready for success

Too many students give up on higher education before they arrive at the doorsteps of our institutions. When they do enroll, a significant number of new high school graduates are not ready to succeed in college-level courses. As a state, we also need to increase the number of students of color who finish high school, a goal that begins with quality early childhood education and continues throughout the primary and secondary grades. We need all students to take the high school courses that prepare them for college, especially in mathematics. As a system, Minnesota State College and Universities is an founding participant in the P-16 Partnership, which works to accomplish this goal. Our institutions must work with schools in their regions to let students know what will be expected in college and to afford opportunities for early college enrollment for students who are ready. We bear a special responsibility to educate the child care workers, teachers, social workers, public health professionals and others who can successfully support and prepare todayís children for post-secondary education.

Strategic Direction 2: Promote and measure high-quality learning programs and services

Minnesota students have many choices in higher education; our degrees and courses must be of high quality. We must be able to prove to potential students, to employers and to the citizens of Minnesota that our academic programs and student services meet objective standards for quality.

Goal 2.1
Demonstrate high quality in all educational programs

To assure that all of our programs are up-to-date and externally validated, we participate in accreditation, standards-based program development and formal quality improvement processes. The quality of our programs must be reflected in the success of our graduatesóincluding their success in getting jobs that serve Minnesota and their professional aspirations. We also survey students and graduates about their satisfaction with the quality of the education at our colleges and universities.
Goal 2.2
Produce graduates who have strong, adaptable and flexible skills

Our graduates and their employers face new demands in the 21st century that will call upon solid skills in reading, writing, mathematics and speaking, the ability to learn and think critically, and technical and professional expertise that is globally competitive. In addition, our students need enriched opportunities to understand and participate in the global community. Assessment of student learning should be embedded throughout our academic and career programs. During the next five years, we will explore new ways to assess our students and assure that they meet high expectations, starting with core skills needed by all graduates. Surveys of employers who hired our recent graduates should be part of this assessment.

Goal 2.3
Provide multiple delivery options for learning programs and student services

While the importance of the relationship between teacher and student does not change, higher education must be provided in multiple ways to suit the learning styles, schedules and preferences which contribute to the quality of each student’s educational experience. Options are also critical to achieving our aspirations for growth in access and opportunity. In current technology, online options offer an attractive means of reaching students looking for the convenience of learning and services delivered over the Internet. We are committed to enabling faculty to enrich their online teaching skills and to establishing the system as a leader in online education. Our students expect online access and other flexible means to take advantage of student services and conduct business transactions.

Strategic Direction 3: Provide programs and services integral to state and regional economic needs

The people’s colleges are not ivory towers. As public higher education institutions, our colleges and universities have special relationships with their communities and regions. Our graduates are the backbone of the workforce in many industries, and our institutions serve the economic development and social vitality of their regions through service and access to leisure and cultural activities.
Goal 3.1
As a major partner in educating Minnesota’s workforce, participate in identifying and meeting regional and statewide economic development priorities

From the Chamber of Commerce to the local workforce council, our administrators, faculty and staff should be involved in appropriate ways with economic development initiatives that can help inform academic planning and become productive collaborations. All communities benefit when we educate the pool of entrepreneurs and talent that will create new engines of economic growth. For most institutions, customized training is a significant service that supports economic development by maintaining a productive workforce. All career programs need to be aligned with needs of the workforce now and in the future. Professional programs, such as nursing and teaching, while fostering personal and intellectual growth as well as career objectives, also need to be connected to workforce needs in terms of the numbers of graduates and job-related learning outcomes.

Goal 3.2
Support regional vitality by contributing artistic, cultural, and civic assets that attract employees and other residents seeking a high quality of life

Libraries, theaters, sports, lectures and exhibitions make our institutions centers for learning and recreation even for people who are not enrolled as students. Particularly in Greater Minnesota, our institutions are vital to the fabric of life. As Minnesota’s communities become more diverse, our colleges and universities have new opportunities to enrich cultural life and to enable area residents of many cultures to benefit from institutional resources and services.

Goal 3.3
Develop each institution’s capacity to be engaged in and add value to its region

In addition to formal relationships with economic development initiatives, institutions can support their regions by stimulating community involvement of faculty and staff in most departments, including liberal arts and sciences. While faculty members at all institutions use their knowledge to solve local problems, state university faculty, in particular, engage in applied research that can assist their regions. Students at all campuses should have opportunities to link classroom learning with civic engagement provided through service learning and community-based research. Student services support for volunteer programs, civic awareness and community-based work-study also add to institutional capacity for partnerships in sustaining healthy regions.
Strategic Direction 4: Innovate to meet current and future educational needs efficiently

An innovative culture and climate will enable the system to take advantage of the work over the last decade to strengthen the ability of institutions to work together. Innovation will make it possible for the system to meet the expectations of todayís and tomorrowís students. And innovation will be critical to reaching our potential as a solution to the stateís needs for an efficient way for all Minnesotans to complete some form of higher education.

Goal 4.1
Build organizational capacity for change to meet future challenges

To serve our students in the new century, we need to enlarge the systemís future orientation and capacity for change. At the system level and on each campus, we must become comfortable with taking risks and moving fast when opportunities arise. Renewed attention should be given to how the system identifies trends and future issues. Knowing that our students live in a world of global communications and competition, we need to incorporate global perspectives into a culture of innovation and strengthen our international outlook and programs. Our organizational structures need to be efficient and adaptable to sudden changes in the student and business markets. Technology to meet the service expectations of todayís tech-savvy students is essential to keeping up with new learning and teaching models, improving student convenience and gaining efficiency in business practices.

Goal 4.2
Reward and support institutions, administrators, faculty and staff for innovations that advance excellence and efficiency

Innovation means becoming a national and international leader, adopting best practices or just doing a job better or with greater efficiency. To promote innovation throughout the system, we will reward it. We will utilize features in the system funding allocation to reward institutions that take risks and innovate. We will work with our faculty and staff to identify and carry out ways to reward innovators with recognition, compensation and other benefits.

Goal 4.3
Identify and remove barriers to innovation and responsiveness

Our faculty and staff are hard-working and dedicated to helping students. But change can be difficult in a large organization. Some barriers to change may be due to organizational climate; others are embedded in state and federal legislation, system policies, formal
procedures and informal practices. We need to ask everyone in our system what barriers prevent innovation and responsiveness and then take action to remove unnecessary impediments and restrictions.

Goal 4.4
Hire and develop leaders who will initiate and support innovation throughout the system

The Minnesota State Colleges and Universities system needs people with vision, personal integrity and high standards who can motivate colleagues and challenge the status quo. Our presidents and senior administrators must be chosen for their leadership abilities and supported with professional growth opportunities. We need leaders in our academic departments, in our business offices and on our student services staff as well. Our practices for selection, development and retention need to address this essential foundation for progress in facing the future.

Goal 4.5
Promote accountability for results through a system of accessible reports to the public and other stakeholders

The system-level accountability framework enhances the ability of the Board of Trustees, system leaders and others to measure progress in achieving the goals of the strategic plan. Continuing implementation of the accountability framework should focus first on measures for the highest-priority goals. Performance results must be easily available to the public. This system-level framework should be complemented by accessible reports from institutions to prospective students and to their communities.

How the Strategic Plan Drives Results

The Board of Trustees and system leadership carry out the strategic plan by adopting and being accountable for workplans which identify specific initiatives and outcomes.

- A system workplan, adopted each year, establishes the short term actions that will be taken to advance the longer term strategic goals.
- The chancellor's priorities are to achieve the system workplan. The Board of Trustees reviews his performance in leading the system on these initiatives annually.
- Presidents use the strategic plan to establish campus priorities. The chancellor and each president negotiate the activities and results that the institution will pursue during the coming year, and presidents are evaluated on the progress they make.
The Minnesota State Colleges and Universities system measures performance in meeting the goals through the system-level accountability framework. The framework may be viewed at http://www.mnscu.edu. Following adoption of the strategic plan, measures in the framework are adjusted if necessary to reflect new goals, starting with goals that are of the highest priority.

Finally, the strategic directions and goals in the plan will be reflected in the budget requests of the system during the next five years.
APPENDIX F
CENTURY COLLEGE STUDENT SENATE
LONG RANGE STRATEGIC PLAN

Long Range Strategic Plan
Century College Student Senate
June 2005 – May 2006

Our Mission Statement: The Century College Student Senate is a student elected group whose purpose is to support and represent student rights.

Goal 1: Students on Committees

Objective: To have maximum participation from students and to develop a more consistent meeting structure for campus wide committees. In the past students have not taken the initiative to make their voices heard or their presence made on Century College’s faculty committees. The committees give students the opportunity to know the status, and to have discussion on, current issues affecting students at Century College. Because these committees discuss issues concerning students, and since it provides a direct link between students and the administration, we as the Student Senate feel that more participation from students and a more consistent meeting structure is needed.

Timeline: July and August 2005- Executive committee members will meet with the President of the Student body to discuss what committees there will be in the following year and which of those students will be a part of.
-A list of the committees’ students will serve on will be comprised with the number of students assigned to each committee along with approximate committee meeting times.
September 2005- Students to serve on each of the committees will be recruited.
September 2005 through May 2006- Student Senate members will find and post committee meeting times in a reasonable amount of time prior to the committee meetings, will keep and post records of committee reports, and continue to ensure that students are attending the meetings.

Goal 2: Club Organization

Objective: To improve the methods of organizing Century College’s clubs. It has been shown by the Clubs formulated through the Student Senate and using Century College funds that the money allotted to them is not always used towards campus activities. Furthermore, many clubs have had a difficult time keeping up with reports and attending meetings. Because Clubs provide activities for students, ways to get to know others and a unique culture to Century College, as the Student Senate we feel it is important to keep clubs organized and on task in order to keep them active. Therefore, throughout the 05’/06’ school year, the Senate will improve the organization of its clubs through better communication and set guidelines.

Timeline: September - November 2005- Senate will discuss a clubs first $100 dollars use towards an on campus activity.
-Senate will have all clubs giving reports at Student Senate meetings.
-Senate will make clear to club representatives the requirements for keeping an active club.
September 2005 through May 2006: The Student Senate President will remind club representatives on the first Wednesday of the month to have their completed reports ready the Friday before the third Wednesday of that month.
Goal 3: Improve Efficiency of Bookstore

Objective: To improve the quality of Century students book buying experience. It has been known for the bookstore to get an overwhelming amount of students trying to buy books for fall semester all at the same time. It has created long lines and frustration for the students. Especially new students attending Century whom typically don’t know about this problem and so they easily get caught up in it. As the Student Senate we feel it is our duty to help out students in this situation. We hope to fulfill this goal by doing at least two things: asking the bookstore to post out of stock books on the book store windows, and increasing awareness of online book buying.

Timeline: July and August 2005- Executive committee will meet with the President of the student body and will discuss concerns over the bookstore.
January 2006- Executive committee members will explore ways to improve awareness of online book buying and then implement ideas to improve the communication.

Goal 4: Parking Lot

Objective: For several years now the deteriorating condition of the parking lot has been a concern of students. The issues surrounding the parking lot include but are not limited to: congested entrance points, confusing and inefficient layout, difficult and dangerous pedestrian movement to and from the parking lot, and an insufficient number of parking spaces. As a representative of the student body the Student Senate feels this concern should be addressed by the administration and it has. Discussion of an increased parking fee to pay for a new parking lot has gone underway and so has discussion of when the project will start.

Timeline: August 2005 through May 2006- Executive members will meet with the President of the College at least twice to discuss how much the fee will be for students, when it will go into effect, and what it is used for.
September 2005 through May 2006- Executive members will find up to date information on the status of the project through the Parking Lot and Facilities Committee.

Goal 5: Environmental Protection

Objective: To increase use of recycle bins on campus. In order to meet environmental standards set forth by the MnSCU board policy 5.17, and to set a good example for students, it has become a goal of the Student Senate to implement environmentally friendly practices into Century College. Last year the Senate tried to get recycle bins into every classroom but only ten were ordered. This year (June 05’ to May 06”) the Senate will work to increase student use of the bins so that more can be ordered.

Timeline: January 2006-The full senate will discuss ways to get more bins and promote student use of them.
February 2006- Senate will pursue to buy more recycle bins if recommended by Student Senate.
September 2005 through May 2006- Senate will continually promote environmentally friendliness.

Goal 6: Student Knowledge of Available Services

Objective: Increase knowledge to students of services including but not limited to tutoring, academic support, direct deposit, online book buying, club involvement, The Bridge Newsletter, capabilities of the student portal and D2L, and Student Senate involvement. From student opinion, the Senate has become aware that a reasonable amount of Century College students do not know about opportunities and services
available to them. Many of these services could greatly better a students experience at Century College and help them through college in general, therefore, the Senate feels it is important for students to be aware of the services available and what each can do for them.

**Timeline: January 2006- Senate will find out in what ways these services are currently being advertised.**
- The executive committee will ask club representatives to talk to their clubs and bring back any comments or suggestions on ways to improve student knowledge of available services.
- February through March 2006- The executive committee will brainstorm ideas on how the methods of letting students know about services could be improved.
- The executive committee will bring their ideas to Dr. Bruner, Vice-President Student Services, and to the marketing committee through student representatives.

**Goal 7: Maintain Communication between Senate and Administration**

Objective: To keep in line with MNSCU board policy 2.3 the senate would like to insure that student opinion is being taken into consideration during the decision making process. In some instances in the past policy has changed before student opinion was heard and, as the representative of the students, the senate feels it is our duty to ensure that it does not occur again in the future. The staff at Century College has always welcomed the senate and we feel any miscommunications were not intentional; our goal is to keep working with the staff this year in order to ensure our voice is heard on all issues possible (exceptions stated in MNSCU policy 2.3 part 3) before any policy goes into effect.

**Timeline: July, August, September 2005- Senate executive members will meet with Dr. Litecky to discuss how and when contact will be made for the coming year.**
- September 2005 through May 2006- Senate members will let Dr. Litecky and other administration know in a timely manner about any concerns and will make sure students are attending committee meetings.

**Goal 8: Food Service**

Objective: To explore ways of lowering the price of food and increasing the choice of food on campus. This has been made aware to Senate through verbal student opinion and student surveys. In order to make Century a welcoming place for all, and to provide choices on all levels, the senate feels it should evaluate the current food service on campus and look to see if there are any options that will work for students and the food service alike.

**Timeline: September and October 2005-Gather data on student’s opinions of food service.**
- Gather student suggestions of ways in which the food service could improve.
- November 2005-Food Committee will meet and discuss where to bring the ideas.

**Goal 9: Capital Bonding Project**

Objective: To support the Capital Bonding Request for the new science and library wing that will be placed on the east campus. We will include our support of the request for asset preservation to the current and existing facilities at Century College, and in the political process involving these requests.

**Timeline: October 2005- Senate will pass a resolution and forward in writing this resolution to the chairs of the Capital Investments Committee of the House, the Senate, and the Governor’s Office.**
Goal 10: Organization of Intercollegiate Athletics

Objective: To form an information file of what intercollegiate athletic teams there presently are and to support additional female participation in the intercollegiate golf program. The Student Senate supports the return of limited basis intercollegiate athletics and so would like to plan for their participation in the future through the use of organization.

Timeline: January 2006- Find out if any additional athletic teams are proposed to be added and what the timelines may be for them at Century College.
February 2006- Create a database of the intercollegiate athletic teams for the Student Senate.
-Give written support for additional female participation in the current program.

Goal 11: Develop a 3-year Strategic Plan

Objective: To develop and implement a long-range strategic plan for the student senate that would cover three years instead of one, to be reviewed annually with a Fall and Spring semester Action Plan to coincide with it. The senate feels this would be an important step towards clarifying our vision and values and also towards creating a unified, goal-oriented organization.

Timeline: December 7, 2005- Present the proposed change of the constitution to the full Student Senate.
January 2006- If senate approves and adopts the change a draft will be presented to the Senate.
February 2006- Senate will vote on the adoption of the three-year plan and it’s coinciding Spring semester Action Plan.

Goal 12: Technology

Objective: To make the use of the technology available to Century College students on campus easy to use and equally accessible.

Timeline: November 2005- Technology Committee will meet to discuss any current issues with technology at Century.
January 2006 through May 2006- The Technology Committee will decide on necessary changes and bring them forth to the administration for discussion.

Additional Note:

Student Knowledge of Available Services

By increasing students awareness of the many options they have at Century College more students will have the opportunity to go above and beyond their current curriculum and to meet new people and make connections. It will make their Century experience memorable and the skills and experience they may gain will be invaluable as they move forward into a career.

Optional ways to increase student awareness of available services:
• Utilize teachers as a means of communication.
• Make a link on the Century College home page that brings a user to information on the ways a student can enrich their experience outside of the classroom and how to fully utilize all of the resources available to them on campus.

• Include a page in each course schedule every semester mentioning that there are clubs and enrichment activities always happening at Century and that help for academics is available at the reading/writing/math/tutor centers.

• Ask SOAR representatives to verbally tell new students what getting involved on campus can do for them and how important a new start through college can be. Then have them point the students in the right direction as to where they can find all of the information on available services and enrichment activities.

• Have student ambassadors/representatives go around to classes on the first day fall semester and talk to the students for a couple of minutes. (or this could be done by the teachers, if willing)

• Ask a counselor (or whoever is best fit) to hold a seminar on Student Success Day on how to stand out amongst others in order to get a job and the ways you can do that at Century.

We want all Century students to be the best, let’s let them know how they can be.

Contact: Ryan Keho  keho0001@go.century.edu
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CENTURY COLLEGE
MASTER TECHNOLOGY PLAN: 2006-2011

EXECUTIVE SUMMARY

The Century College Master Technology Plan for 2006-2011 represents an attempt to balance strategic, long-range visions for educational and administrative technology and telecommunications services at Century with shorter-term, actionable goals and projects which allow for incremental “at-a-glance” progress toward the long-range visions.

The Master Technology Plan serves Century College’s mission, vision and value statements (Appendix A) and is a coordinated part of other college master plans, including the college Master Academic Plan (Appendix F), Master Facilities Plan (Appendix G), Master Business Plan (in development, Spring 2008), Enrollment Management Plan (in development, Spring 2008), and Student Senate Long-Range Plan (Appendix E). Additionally, the Century College Master Technology Plan must also coordinate with the Minnesota State Colleges and Universities (MnSCU) Board strategic plan (Appendix D), as well as the more specific MnSCU Information Technology Services (ITS) Enterprise Investment Plan (EIP, in development Spring 2008), which governs allocation of substantial, new (2007) state of Minnesota base funding investments in technology for the MnSCU system.

This plan updates and expands on the one-year, interim master technology plan (Appendix B) created in 2006 which focused on three specific areas:

- Support for ongoing college operations
- Support for strategic/annual plans of other departments
- Responding rapidly to emerging technology changes

Century College’s Information Technology Services department aspires to make demonstrable progress in these areas over the next four years so that by 2011 we will be

... recognized within MnSCU and the state of Minnesota for leadership in academic and administrative technology support services, effectiveness and efficiency.

... a sought-after, value-adding partner within Century College for business-process re-engineering, including technology-related academic and administrative planning, business process mapping and project management services.

... recognized for a state-of-the-art, reliable, flexible and sustainable technology infrastructure.
... recognized for collaboration internally and externally to produce innovative, cutting-edge, educationally-sound uses of emerging and developing technologies to support teaching and learning.

Incremental progress toward these goals will be measured and tracked through the development of project plans, prioritization and assignment of human resources, fiscal assets and technology tools on an annual basis. A report documenting progress toward Master Technology Plan goals and action items will be distributed in the fall of each year.
Planning Statement

The development of the Century Master Technology Plan for 2006-2011 involved the participation of groups from throughout the college, including the Information Technology Services (ITS) Advisory Committee, the ITS internal team, both the Executive and Full Cabinets, as well as review by external CIOs. The plan incorporates information from the completed Century College Master Academic & Facilities plans, as well as the Student Senate Long Range Strategic Plan. Additionally, the plan aligns with the MnSCU Board’s strategic directions and the MnSCU ITS Enterprise Investment Project planning.

The format and some content in the Master Technology Plan are taken directly (with appropriate acknowledgment) from the Century College Master Academic Plan document. This has been done intentionally to insure consistency and alignment of planning content and format.

The success of the master technology plan is dependent on a number of factors, but most importantly on “buy-in” from the college community as a whole. The process followed to develop this plan made every effort to encourage broad feedback and input into the plan. This document is intended to be both visionary and actionable, touching all areas of teaching and learning technology at Century College.

To facilitate the development of the Master Technology Plan, the ITS Advisory Committee (ITSAC) adopted the following guiding principles:

Technology Guiding Principles

The Master Technology Plan provides direction and a vision for the future of technology at Century College. Century College is committed to investing in technology to support its mission, and to creating an environment that embraces diversity and innovation.

The role of the Information Technology Services department referred to in this document is to support and enhance the core mission of education and service through the effective management and use of information resources.

The Guiding Principles for Information Technology Services are as follows:

1. ITS must support the institution’s mission(s), including all operational areas of the institution.
2. ITS will meet the highest standards of ethics, excellence and leadership, providing an environment that enriches and enhances all teaching and learning activities.
3. ITS will provide a reliable, flexible, current and secure technology infrastructure.
4. ITS will optimize technical support resources and services for all members of the community.
5. ITS will support decision-making processes to ensure that priorities and funding decisions are aligned with the College and MnSCU missions and ITS goals and objectives.

1 adapted from St. Paul College Technology Master Plan 2007-2011
6. ITS will support initiatives that focus on exemplary, timely and accurate customer service that proactively responds to the needs of customers.
7. ITS is committed to efficient, productive, and effective continuous improvement in services and resources.

These principles will require a shared commitment among faculty, staff and administrators to seek more effective ways of using information technology resources to achieve College goals, to set clear priorities for ITS and to work collaboratively to achieve the identified goals.

**Strategic Directions**

At the highest level, four strategic directions have been developed by the Century ITS Advisory Committee. As with the Academic Plan, these directional areas are intentionally focused on neither operational issues nor implementation strategies. The intent is to create directions which will survive the planning period given the constant flux in technologies.

The Century ITS Advisory Committee has recommended the following four strategic directions for the four year planning period:

- Exemplary Service
- Business Process Re-Engineering
- Flexible Technology Architecture
- Research, Development, Innovation

**Goals/Action Projects**

Following the Century Master Academic Plan format, the ITS Advisory Committee agrees that ...it is important to ensure that the master plan continues to be an active, flexible document. As a result, this planning document provides a fundamental framework for achieving planning goals. As dynamic changes occur, it will be necessary to remain flexible when developing implementation strategies. Therefore, action projects will be determined each year in conjunction with the budget development process at Century College. Action projects will be developed for each goal (e.g., AE Goal 1, DG Goal 4) and will identify specific projects that will be accomplished during the following academic year. Action projects will be designed using the standard template (Appendix A) agreed to by the Century Master Academic Planning Committee in order to ensure that all projects include consistent components, including identification of project sponsors, leads, team members and clearly stated milestones, resources, and target completion dates.

(Century College Master Academic Plan 2006-2011, p 3)

The college ITS Advisory Committee (see Appendix C for membership) will oversee the ongoing implementation and updating of the Master Technology Plan.
Process/Consultation Summary

By its very nature, the Century College Master Technology Plan for 2006-2011 is intended to be consultative in the development of its structure, content and implementation. To avoid creating a plan that is seen as a “top-down” effort, the Century Master Technology Planning process involved the participation of groups from throughout the college, including the Information Technology Services Advisory Committee (ITSAC), the ITS internal team, both the Executive and Full Cabinets, the Century Planning Committee as well as review by other MnSCU campus CIOs.

Annual Century Master Technology Plan Action Projects will be developed in consultation with the ITS Advisory Committee to provide faculty consultation, cross-divisional stakeholder input and to insure an overall sense of shared responsibility for the plan.

Plan Alignment

It is considered critical that the strategic directions established within this plan are aligned with system-level planning from the Office of the Chancellor as well as the Century College mission, vision, and planning goals. As a result, each strategic direction includes a statement of alignment to underscore the integrated nature of the master plan. In addition, the Century Planning Committee has been charged with reviewing all college plans specifically to reinforce and promote further integration and mutual support.

Because the major focus of this plan is technology-related, however, it does not fit all components of the much-broader MnSCU and Academic Master Plans. This plan has noted where alignment can be directly achieved. This does not mean that the Master Technology Plan has not considered or does not have action projects which further all MnSCU or Academic goals; rather, it speaks only to those that are directly applicable to elements of the technology plan.

It is important to recognize that technology is a key aspect of most planning processes. The Century College Student Senate Long Range Strategic Plan has identified technology as its twelfth goal. The Master Academic Plan lists educational technology as a separate goal. This plan works to explicitly align with those goals, as well as the goals intrinsic to technology.

Process Note

As the ITS Advisory Committee (ITSAC) began reviewing the draft Master Technology Plan, the group explored the possibility of having as many as seven strategic directions, including information assurance, training & development and communication as separate strategic directions. The advantage of including them as separate directions allows the college to focus direction, resources and attention exclusively on those activities. It also follows the pattern set by many other technology master plans, including the MnSCU plan. The challenge of separating these initiatives from the other directions, however, is that doing so can undermine the core nature of these activities and their importance to the success of all ITS-related activities.
Since the advent and commercialization of the publicly-available internet, information assurance has become a cornerstone activity of technology departments. The importance of providing for a well-educated community of users confident in the security of their Century College information and resources influences every decision and activity within the ITS department. Because of this, the committee recommended making this acknowledgment and recognizing information assurance as a focus area within all activities.

Likewise, training and development activities are integral to the organization given the rapidly-changing technology landscape. Technology team members have training and development activities included as a measurable and evaluated component of their position descriptions. To accomplish this activity, team members have time and funding dedicated to accomplish training activities. Additionally, as part of the annual review process, all technology team members create a professional development plan with their supervisors. This becomes a part of employee review documents and creates a measurable performance expectation for the upcoming review period.

But keeping technology team members current on technology meets less than half of the overall need. The college community as a whole needs to be kept current with the technology tools available to them. To accomplish this, the ITS team partners with the Century College Center for Teaching and Learning and the Employee Development teams to create, deliver and evaluate training activities. This core ITS activity has been irregular during the leadership transitions within ITS, but has stabilized with the hiring of a new Director of Technical Services. This activity has also been enhanced with the recent re-engineering of the Center for Educational Technology, a focused partnership of academic, student and technology team members, directed at providing new and engaging tools and training opportunities.

By including training and development as a focus area for each strategic direction, the need for this important service will be integrated into each activity.

Finally, ongoing, effective, clear and concise communication will be critical to effectively accomplish the strategic directions and meet the college’s goals and action plans. Separating communications out undermines its importance in each of the strategic directions. By infusing communication strategies within the goals of each strategic direction, the plan allows for coordinated communication methods to keep the community informed not only as to project status, but also with general technology happenings at Century.
EXEMPLARY SERVICE

By 2011, Century College will be recognized within MnSCU and the state of Minnesota for leadership in academic and administrative technology support services, effectiveness and efficiency.

BUSINESS PROCESS RE-ENGINEERING

By 2011, the Information Technology Services (ITS) division will be a sought-after, value-adding partner within Century College for business-process re-engineering, including technology-related academic and administrative planning, business process mapping and project management services.

FLEXIBLE TECHNOLOGY INFRASTRUCTURE

By 2011, Century College will be recognized for a state-of-the-art, reliable, flexible and sustainable technology infrastructure.

RESEARCH, DEVELOPMENT, INNOVATION

By 2011, Century College will be recognized for collaboration internally and externally to produce innovative, cutting-edge, educationally-sound uses of emerging and developing technologies to support teaching and learning.

To achieve each of these strategic directions, Century College will include these focus areas:

INFORMATION ASSURANCE

Information assurance will be an integral component of all four strategic directions.

TRAINING & DEVELOPMENT

Accomplishing the four strategic directions will involve extensive training and development activities.

COMMUNICATION

We recognize communication as a critical, core element of each strategic direction.
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<tbody>
<tr>
<td>System Strategic Direction #1: Increase Access and Opportunity</td>
<td>Student Success Goals 1-5</td>
<td>None directly applicable; indirectly, many technology-related projects will support this goal.</td>
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<td></td>
<td>Academic Excellence Goals 1-5</td>
<td>ES04: Measure customer satisfaction</td>
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<tr>
<td>System Strategic Direction #2: Promote and Measure High Quality Learning Programs and Services</td>
<td>Diversity &amp; Global Awareness Goal 4</td>
<td>ES05: Improved one-call issue resolution</td>
</tr>
<tr>
<td></td>
<td>Educational Technology Goal 4</td>
<td>BP01: Project management tools/principles</td>
</tr>
<tr>
<td></td>
<td>Continuous Improvement Goals 1-3</td>
<td>BP02: Process maps for all ITS services</td>
</tr>
<tr>
<td>System Strategic Direction #3: Provide Programs and Services Integral to State/Regional Economic Needs</td>
<td>Collaboration/Partnership Goals 1-3</td>
<td>None directly applicable; indirectly, many technology-related projects will support this goal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ES01: Service Listing</td>
</tr>
<tr>
<td>System Strategic Direction #4: Innovate to Meet Current and Future Educational Needs Efficiently</td>
<td>Collaboration/Partnership Goal 4 Educational Technology Goals 1-4</td>
<td>ES02: Service Level Agreements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ES03: FAQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP03: Project definitions/templates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FT01: Network re-architecture</td>
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<tr>
<td></td>
<td></td>
<td>FT02: Server/storage re-architecture</td>
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<tr>
<td></td>
<td></td>
<td>FT03: Telecommunications improvements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FT04: Website redesign/content mgmt system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FT05: Classroom technology improvements/standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FT07: Enterprise ITS standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FT08: Information assurance standards</td>
</tr>
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<td></td>
<td></td>
<td>RD01: Explore possibility of mobile device campus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD02: Campus technology brainstorming sessions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD03: Create technology innovation fund pool</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD04: Center for Educational Technologies alliance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD05: Celebrate technological innovations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD06: Training seminars (online/on-campus)</td>
</tr>
</tbody>
</table>
EXEMPLARY SERVICE

By 2011, Century College will be recognized within MnSCU and the state of Minnesota for leadership in academic and administrative technology support services, effectiveness and efficiency.

Environment

The Information Technology Services division within Century College has seen remarkable change over the past four years, including three Chief Information Officers, nearly 50% staff turnover, and changing, sometimes divergent philosophies regarding customer service. This has led to inconsistencies in delivering services to the community. The ITS department is committed to providing timely, professional and responsive communications and services to the Century College community in furtherance of college goals.

Mission and Alignment

At its very core, service underpins all of the strategic goals for both MnSCU and the Academic Master Plan. By striving to improve service to Century students and employees, the Master Technology Plan contributes directly to student success, academic excellence, educational technology and continuous improvement goals. The establishment of clearly-defined, measurable customer service related ITS goals is consistent with MnSCU strategic direction #2, promoting and measuring high quality learning programs and services.

Further, excellence in customer service is to be a hallmark of the ITS division at Century College. As a service unit to all areas of the college, ITS must provide consistently high quality service in rapidly changing circumstances. While all other areas of the Master Technology Plan have high importance and contribute to overall college success, should the ITS team fail to provide excellent services, other ITS activities will not succeed. Customers must feel comfortable approaching ITS with service requests; confident that ITS will be responsive, reliable and resourceful in meeting their needs.
2011 Goals/Action Plan Items for Exemplary Service (ES)

The following goal statements describe the intended achievement by the year 2011:

GOAL ES01: Publish list of Services: The ITS team will create, publish and maintain (each term) a listing of all services offered by the department.

GOAL ES02: Service Level Agreements (SLA): The ITS Advisory Committee (ITSAC) and the ITS team will create and manage service level agreements and related metrics for all IT-related services. These SLAs will include priority explanations and response-time expectations for each ITS service.

GOAL ES03: Maintain list of Frequently Asked Questions (FAQ) – The ITS team will develop, publish (both online and in print) and maintain a list of the most frequently asked technology questions.

GOAL ES04: Measure customer satisfaction – The ITS Advisory Committee (ITSAC) and the ITS team will develop and implement annual technology satisfaction surveys for employees and students. Results of these surveys will be included in all annual technology planning and budgeting activities.

GOAL ES05: Improve Help Desk services. The ITS Help Desk will have an expectation of doubling the one-call resolution of all incoming service requests without escalation to level 2 support. All calls will be entered into Help Desk tracking software; customers will be contacted with either a solution for the problem, a timeframe for the solution or a timeframe for the next area to contact them.

GOAL ES06: Communications. The ITS division will improve both the quality and quantity of communication activities with our customers. Communications will be timely and understandable. Emails sent to announce service interruptions will be consistent, identifiable, sent in a planned manner with agreed amount of notice given.
Business Process Re-Engineering

By 2011, the Information Technology Services (ITS) division will be a sought-after, value-adding partner within Century College for business-process re-engineering, including technology-related academic and administrative planning, business process mapping and project management services.

Environment

A cornerstone of effective college operations includes knowing how to “get things done.” While this applies across campus, it is especially critical in information technology services as so much of the college is dependent upon technology to accomplish unit goals. Given the leadership changes within ITS over the past four years, it has become increasingly difficult for our customers to do business with us. Understanding how the ITS division operates is critical for better communication and service with our customers. By documenting processes and procedures, the ITS team allows Century community members to understand not only how, but when to make service requests.

Additionally, by virtue of its role as a core college activity, the ITS division has connections to all groups within the college. This interaction allows ITS team members to learn business processes within each area. By working with divisions to review and document existing business processes for our customers, the ITS division can identify potential process problems, improve efficiencies and act as a change agent. By working together, ITS and the Century College community can improve our efficiency and better utilize our scarce resources to accomplish our educational goals.

Mission and Alignment

As Century competes for students and resources with public and private institutions of higher education, it will need to continually streamline and improve operational efficiencies. One way to improve efficiency is to continuously examine business processes. By finding and eliminating barriers to productivity, business process re-engineering activities allow employees to more effectively meet the needs of our students. This goal looks at internal business practices in the ITS division to find ways in which we can more effectively and efficiently provide services to the college community. By publishing services and clearly outlining process steps, the ITS team will better communicate resources, timelines and services to the college.

This goal directly aligns with system strategic directions 2 and 4: promoting and measuring high quality learning programs and services and innovate to efficiently meet current and future educational needs. It further aligns well with the Century College Master Academic Plan goal of continuous improvement.
2011 Goals/Action Plan Items for Business Process Re-Engineering (BP)

The following goal/action item statements describe the intended achievement by the year 2011:

**Goal BP01:** Use project management tools and principles for all non-routine ITS activities.

**Goal BP02:** Create visual process maps for all technology-related services, especially those which are complex or involve multiple steps.

**Goal PP03:** Develop and publish a common project definition so that ITS can accomplish the appropriate support requirements.

**Goal BP04:** Design project request tools. The ITS team will create a toolset which allows for the input, evaluation, ranking and progress reporting of all technology-related projects.

**Goal BP05:** Use technology tools and professional staff to offer business process-mapping and re-engineering services to all college divisions.
STRATEGIC DIRECTION THREE: FLEXIBLE TECHNOLOGY INFRASTRUCTURE

FLEXIBLE TECHNOLOGY INFRASTRUCTURE

By 2011, Century College will be recognized for a state-of-the-art, reliable, flexible and sustainable technology infrastructure.

Environment

Time in which Century College employees do not have access to the technological resources required to complete their duties impacts the ability of the college to effectively and efficiently deliver educational services to our community. Unfortunately, resource constraints have prevented ITS team members from resolving problems as quickly as possible. The ITS team is committed to finding resources which allow us to keep Century College employees and students focused on their core activities.

A technology infrastructure consists of the key components allowing customers to accomplish their technology-related tasks. It includes college servers, network wireless and wired access devices (switches), storage and backup devices, desktop and mobile computing equipment, printing/copying, audio-visual and telecommunications devices. It also includes the core software programs which allow for the creation and management of network/e-mail accounts, desktop productivity software and specialized hardware and software tools.

To accomplish this, standardization in several key components is necessary. By selecting and supporting mutually agreed-upon hardware and software tools, the ITS division is able to stock spare units and quickly respond in the event of hardware failures. By returning equipment to a working state as quickly as possible, customer activities may continue with limited interruption.

While standardization may seem at odds with the goal of flexibility, it allows a foundation upon which flexibility may be built. Illustration 1 (below) illustrates the foundational nature of a sound technology infrastructure.
The dates associated with the illustration above do not limit the activities to those specific years, but rather provide illustration as to when operational excellence has been achieved in each area. The challenge for the ITS team lies in the lack of visibility for many of these activities. The ITS team recognizes the many critical technology needs of the Century community and will strive to meet those needs while updating the many core technology infrastructure needs which have been only sporadically addressed in the past three years.

**Mission and Alignment**

This goal most directly aligns with MnSCU strategic direction 4 – innovating to meet current and future educational needs efficiently. This goal led MnSCU to seek additional dedicated technology funding from the legislature in 2007. Having received the additional base funding in July 2007, MnSCU immediately began modernizing and upgrading all core elements of the MnSCU Integrated Statewide Records System (ISRS). MnSCU also allocated a portion of this funding to campuses; at Century, this money was used primarily to upgrade campus network switches. A network switch connects computers and printers in offices to the servers which provide file, print, and internet services. The average lifespan of this equipment is five to seven years, and the majority of Century’s switches approached the latter end of their lifespan. By setting standards for update cycles and identifying ongoing funding sources, the ITS team will insure a stable foundation upon which both operational and innovative educational services can grow.
The following goal/action item statements describe the intended achievement by the year 2011:

**GOAL FT01:** Complete the re-architecture of network infrastructure. To align with MnSCU ITS network guidelines, make use of current technologies and provide increased flexibility, the ITS team will examine and build a new network hardware and software infrastructure.

**GOAL FT02:** Complete the re-architecture of server/storage infrastructure. The ITS team will evaluate, recommend, procure, configure and put into production the latest server and storage technologies to provide a foundation for all campus computing activities. This activity will bring the current 5-7 year old server/storage environment up to current industry standards.

**GOAL FT03:** Review and recommend telecommunications upgrades. The ITS team will evaluate, recommend, procure, configure and put into production the latest telecommunications technologies to modernize communication tools available for teaching and learning activities at Century.

**GOAL FT04:** Completely redesign the college website and associated content management system. The ITS team will participate in the planning, design and production of a complete revision and update of the Century College website. The ITS team will make available appropriate content management tools and permissions to allow both distributed and centralized updates to the college website.

**GOAL FT05:** Integrate technology into physical and virtual teaching and learning spaces. In collaboration with the Facilities Committee, the Center for Educational Technology and the ITS Advisory Committee, the ITS team will evaluate, recommend, procure, configure and put into production the latest audio-visual technologies to provide easy-to-use, reliable classroom technology for teaching and learning. This includes the creation of a comprehensive plan to update and maintain existing technology-enhanced classrooms, create a process, schedule and plan for additional technology-enhanced teaching spaces, as well as a funding plan to maintain all classroom equipment.

**GOAL FT06:** Increase availability for all college technology services. The ITS division will have working, prepared spare units or appropriate service contracts for all technology-related components.

**GOAL FT07:** Develop, communicate and manage an “Enterprise Architecture” document. This publicly-available document will outline standard technology hardware and software tools, replacement cycles and funding strategies.

**GOAL FT08:** Understand, document and adhere to (with a formal process to document any exceptions) MnSCU, state of Minnesota and industry information assurance standards and best practices.
STRATEGIC DIRECTION FOUR: RESEARCH, DEVELOPMENT & INNOVATION

RESEARCH, DEVELOPMENT & INNOVATION

By 2011, Century College will be recognized for collaboration internally and externally to produce innovative, cutting-edge, educationally-sound uses of emerging and developing technologies to support teaching and learning.

Environment

Educational technology, as well as all technology, changes so rapidly that without continual investment in research, development and innovation an institution can quickly fall behind and risk losing its relevance to tomorrow’s students. Innovation is a hallmark of Century College and as such has been incorporated into the college’s vision statement. In addition to providing core, day-to-day services to support the college’s operations, the ITS team also has the opportunity and responsibility to provide a supportive environment that provides leadership and embraces new, innovative uses of educational technologies.

Mission and Alignment

As noted in the Master Academic Plan,

The Century College Work Plan includes action steps pertaining to expanding and integrating electronic learning and technology into the institutional environment. Specific items range from the offerings of online courses, certificates, and degrees; improving e-student services; and implementing new hardware and software for increased efficiency. In addition, one of the current AQIP action projects centers on the delivery of student services online. Finally, the system strategic plan stresses the use of innovative approaches to educational needs.

This goal directly aligns with MnSCU strategic direction four and the Century College Master Academic Plan, as indicated above. Educational technology changes dramatically with each passing year. Systems that do not evolve to meet the changing needs are bound to fall behind quickly. This goal specifically works to bridge the gap between administrative and academic technologies by bringing together both groups with training and collaborative partnerships. One important vehicle in this goal is the Center for Educational Technologies (CET), a formal partnership with the academic and ITS teams aimed at finding and incorporating new technologies into the classroom environment. As such, this goal also aligns with MnSCU system strategic direction two, the promotion and measurement of high quality learning programs and services.
2011 Goals for Research, Development & Innovation

The following goal statements describe the intended achievement by the year 2011:

**GOAL RD01:** Explore the possibility of becoming a mobile device campus. Explore opportunities and funding strategies to become a mobile-computer campus.

**GOAL RD02:** Facilitate technology brainstorming/demonstration groups (including students, faculty, staff and library) through brown-bag luncheons, involvement in college development days, hosting of seminars and other means of communications.

**GOAL RD03:** Create innovation fund pool. Create and oversee an annual technology innovation cost center and budget, request process and support services available to all Century College employees. This fund encourages departmental and individual research and development into emerging educational technologies.

**GOAL RD04:** Fully engage in the Century College Center for Educational Technology (CET). Fully support and integrate the activities of the CET into college technology infrastructure.

**GOAL RD05:** Reward and celebrate technological innovation. ITS team members will present at local and national conferences, collaborate with global educational technologists and receive recognition for sustaining innovation.

**GOAL RD06:** Provide ongoing in-person and online technology training seminars for college employees and students.
APPENDIX A
Century College Mission, Vision & Values Statements

Mission statement

Century College is a learning-centered community committed to providing quality lifelong educational opportunities for a diverse citizenry.

Vision statement

Century College is a learning organization that is:

- Forward looking
- Future-oriented
- Innovative
- Caring and supportive of students and each other
- Learner-centered
- Committed to student success
- Responsive to the community
- Engaged in Self-evaluation and renewal
- Accountable
- Recognized for quality service and program excellence
- College of choice for the community

Value statement

Members of Century College value:

Integrity

Making and keeping commitments and fostering an organizational culture consistent with the College mission, vision and values.

Diversity

Respecting all individuals, accepting differences, promoting inclusiveness and enriching the learning experience.

Excellence

Fostering higher education standards of performance and establishing continuous improvement as a fundamental goal for all programs and services.

Responsiveness

Ensuring individual and community learning needs are addressed, programs and services are current and relevant, and the college is flexible and proactive.

Accountability

Establishing performance criteria and success indicators, measuring student learning gains, and using the results to inform the public and improve.
Access

Maximizing students’ educational opportunities and eliminating barriers to success.

Stewardship

Ensuring that management of public and private resources adds to the students and communities served. The mission, vision and values statements are reviewed and modified, as necessary during the College’s annual strategic planning process.
APPENDIX B
INTERIM MASTER TECHNOLOGY PLAN (2005-2006)

CENTURY COLLEGE INTERIM
MASTER TECHNOLOGY PLAN: 2005-2011

Interim Planning Note

Given the previous transition from one chief information officer to another and the fact that a new CIO will likely be in place before summer of 2006, this ITS master technology plan is not intended to cover the five-year master planning period. Rather, this six-month to one-year plan will serve as a transitional plan with the understanding that the new CIO will lead a master plan development process for the 2006-2011 period.

There are benefits to this timing. The Century Master Academic Plan will be finalized and approved in May, and creating the more permanent master technology plan after May will contribute significantly to the ability of this plan to align the master plans and better support the teaching and learning goals of the college. In addition, this interim plan intends to establish an over-arching ITS approach to services, support, and measurement that will most likely require a transitional period.

Strategic Planning Drivers

The Information Technology Services (ITS) Department exists to help Century College fulfill its mission and vision with and through the use of technology. ITS is a support department of the college. Therefore, ITS will use strategic and annual planning processes to better position itself to provide that support. Three primary drivers will guide ITS planning:

1. The first driver is the everyday, ongoing operations of the college. The overwhelming majority of the college’s effort and resources are invested in everyday operations. While these operations evolve over time, on a near-term basis, they represent a stability and continuity that define the college. Daily teaching, learning and support operations are the activities that fulfill the mission of the college. Positioning ITS to maintain these operations with and through the use of technology is the highest priority of the ITS planning effort.

2. Many of the changes in daily college operations that do evolve over time are based upon planned adaptations to changes in our environment. When the methods the college uses to fulfill its mission are recognized to be misaligned with the perceived needs of our community, we plan and implement changes. In these cases, ITS must typically also make changes in its support services. Therefore, aligning ITS services to respond to the strategic and annual plans of other departments will constitute a second driver for ITS planning.
3. The third driver for ITS planning has to do with the nature of technology itself. Technology-inspired tools and processes that may be valuable and even critical for college operations can and will emerge on very short notice. Emerging technologies, emerging uses of technology, and emerging issues and opportunities related to existing technologies will arise and require immediate attention without ever having been considered in the normal strategic and annual planning processes of any department. Therefore, ITS planning will also be driven by a desire to position ITS to respond rapidly to emerging changes in the technological landscape in order to better seize upon opportunities and to better avoid threats.

Planning Framework

The ability to provide the college with the desired types and levels of technology-based services, to respond successfully to planned changes in the operations of other departments, and to respond rapidly to emerging environmental threats and opportunities requires a high-level of operational proficiency. Planning for and achieving a high-level of operational proficiency in turn requires three key competencies:

1. A clear understanding and articulation of the operational activities and outputs of ITS
2. The ability to accurately measure the status and improvement of ITS support activities and outputs
3. Knowledge of methods that can be used to improve operational activities and outputs.

Articulating Operational Activities and Outputs

The operational activities and outputs of the ITS Department are components of the department’s *value chain*. The value chain describes the inputs and processes that make the outputs valuable to the institution and the students. At an institutional level, the college has campus facilities, faculty and staff, an annual budget, and the support of several external organizations, all of which serve as inputs to a series of educational and administrative processes that ultimately create value for students. Somehow, we all work together to produce this value, and we all are expected to contribute to it.

The ITS Department is a sub-process in the college value chain. ITS has its own resource inputs, its own processes, and its own outputs. Understanding these components is the key to knowing what to improve and how to measure it. For the current planning cycle, the value chain of the ITS department will be described as follows:
ITS will start with these core component activities and outputs, expanding upon them to articulate more clearly the intended service outcomes. All of the operational components will be assessed during the planning period and those components deemed to represent the greatest need or opportunity will be targeted for improvement.

Measuring Status and Improvement

Activities and outcomes are typically measured in terms of their cost, quality, and timeliness. These dimensions are each separate categories of measurement, not actual metrics themselves. For example, depending upon the activity or outcome to be measured, the actual timeliness metric might be response-time, elapsed-time, frequency, or count-per-period. Determining the most appropriate metric(s) for measuring the cost, quality, and
timeliness dimensions of each operational activity will be an early activity in the planning period. While the quality of this effort may be hit-or-miss initially, it is a planning assumption that any measurement effort for an operational activity will focus critical thinking on that effort and cause a refinement in the measurement process over time.

At least one metric or—in many cases—several metrics will be established for each of the cost, quality, and timeliness categories. Combined, the three categories of measurement define the value of the activity or outcome. The combinations are infinite, but three are listed below to illustrate the spectrum or scale of value that can be measured:

<table>
<thead>
<tr>
<th>Low Value Activities</th>
<th>High Value Activities</th>
<th>Perfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>• high-cost</td>
<td>• low-cost</td>
<td>• zero cost</td>
</tr>
<tr>
<td>• low-quality</td>
<td>• high-quality</td>
<td>• perfect quality</td>
</tr>
<tr>
<td>• untimely</td>
<td>• timely</td>
<td>• instantaneous when needed</td>
</tr>
</tbody>
</table>

While the point of “Perfection” is ultimately unattainable, measuring the current distance from that point and the progress being made toward it, are metrics that are quite easy to obtain. To illustrate how an improvement in an activity could be assessed, one must assume that the before-improvement and after-improvement activities have the exact same quality and timeliness. The only difference between them is their cost. In this case, the activity with the lower cost represents a greater value to the institution and its students than the activity with the higher cost. In addition, the cost that is calculated is also inherently the distance from “cost perfection.” This simple determination of relative value can be made using any of the measurement categories.

Cost, quality, and timeliness are often called the “Iron Triangle of Value” because each dimension is inescapably important to understanding the value. Another reason is that sometimes improvements made in one dimension can only be made at the detriment of another dimension. However, it is a planning assumption for the period that there are fundamental inefficiencies in many of the department’s operational activities, and, therefore, it will frequently be possible to achieve improvements in all three categories simultaneously.

Methods for Improving Activities and Outputs

Many of the operational activities that will be selected for improvements and the methods that will be used to achieve those improvements will be very recognizable to the IT professional once the measurements are made and the priority is established. In some cases, however, meaningful metrics might be difficult to collect. In others, the method to achieve an improvement might not be obvious. In these cases, it is a planning assumption that the quality improvement and institutional effectiveness initiatives of the college can be brought to bear to provide a more robust planning and measuring effort to the departmental improvement activity.
Strategic Goals

Support for Ongoing College Operations

Goal O1: Articulate the activities and outcomes of the ITS value chain

Objectives:
1. Develop and track summary statistics for all ITS resources
2. Define measurable goals and objectives for each function, process, and project
3. Define and publish service levels goals for all systems and services
4. Communicate with stakeholders

Goal O2: Establish uptime metrics for all hosted systems and services

Objectives:
1. Define timeliness calculation
2. Measure
3. Report status monthly
4. Report trends annually
5. Communicate with stakeholders

Goal O3: Establish outage metrics for all hosted systems and services

Objectives:
1. Define cost calculation
2. Measure
3. Report status monthly
4. Report trends annually
5. Communicate with stakeholders

Goal O4: Conduct annual value assessment for ITS systems and services

Objectives:
1. Establish usage statistics for each system and service
2. Survey customers on “quality” and “timeliness” performance
3. Compile unit “cost” metrics for each system and services
4. Report unit cost and outage cost statistics for each system and service
5. Communicate with stakeholders
Support for the Strategic and Annual Plans of Other Departments

Goal P1: Participate in the development or review of academic and support department plans

Objectives:
1. Ensure that initiatives that will depend upon technology are well understood by both the planning department and ITS
2. Ensure that opportunities to use technology well are considered in department planning

Goal P2: Establish processes for including all requirements from other plans into ITS unit plans and project plans

Objectives:
1. Establish a prioritized and approved ITS project list
2. Identify ITS value chain components that may need to change during the planning period

Responding Rapidly to Emerging Changes

Goal C1: Identify the most time consuming components of the ITS value chain and target them for re-engineering

Objectives:
1. Identify the percent ITS staff effort for all ITS value chain components
2. Commission process improvement projects for the labor intensive activities

Goal C2: Cross train ITS staff to lead and contribute to multiple value chain components

Objectives:
1. Inventory the skills required for each function and process
2. Maintain a skills matrix which maps the demonstrated skill level of each staff member to each function and process
3. Prioritize the gaps in cross coverage skills that exist in department
4. Address the gaps in coverage through work assignments and staff development efforts

Goal C3: Conduct an annual Information Security Risk Assessment for all ITS supported information systems and services

Objectives:
1. Inventory the information system assets managed by the college
2. Identify the risks using the Office of the Chancellor Security Risk Assessment Template
3. Identify risk management strategies for all at-risk assets
4. Reduce all risk categories to “low” by 2011

Goal C4: Establish an annual capacity planning process

Objectives:
1. Identify capacity metrics for all supported systems
2. Collect utilization and trend statistics for all supported systems
3. Add capacity criteria to system upgrade, expansion, and lifecycle planning
APPENDIX C
CENTURY INFORMATION TECHNOLOGY SERVICES ADVISORY COMMITTEE INFORMATION

Century College
Information Technology Services Advisory Committee (ITSAC)

Purpose:

The ITS Advisory Committee exists to provide a cross-functional campus forum for input on all aspects of information technology services at Century. The ITSAC has a goal of reviewing, prioritizing and recommending to the AVP & CIO all ITS planning, including the following:

- Review current technology strategic and operational plans.
- Write future technology strategic and operational plans in alignment with overall campus and MnSCU strategic/operational plans.
- Review and recommend annual campus technology budgets for: academic, administrative, student technology fee* and telephone system budgets.
- Establish campus standards for computing, network use, electronic mail, and printing (including replacement schedule recommendations).
- Review and recommend technology policies, procedures and employee training requirements.
- Provide oversight for campus technology security, business continuity and disaster recovery planning and implementation efforts.
- Create a system for Century community members to make ITS project requests, as well as a mechanism for prioritizing and monitoring those requests.
- Develop and monitor performance measurements for technology services at Century.
- Review and recommend data privacy and security options for Century College, in alignment with applicable MnSCU, state and federal regulations and policies.

Membership:

Seeking balanced, broad campus participation, membership on the ITS Advisory Committee will be composed of representative members from each division of the college. Potential faculty members will be forwarded by MSCF leadership, with final selection made by the President. Student appointments will be renewed annually by the Century Student Senate. This committee will be chaired by the AVP & CIO and staffed by the Assistant Directors of Technology Services and Operations. Membership on the committee will include:

<table>
<thead>
<tr>
<th>Division</th>
<th>#</th>
<th>Representatives (FY08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Affairs Division</td>
<td>1</td>
<td>Brenda Lyseng</td>
</tr>
<tr>
<td>CE/CT Division</td>
<td>1</td>
<td>Bruce Anderson</td>
</tr>
<tr>
<td>Faculty Representatives</td>
<td>3</td>
<td>Randi Madisen, Carol Matthews, Scott Simenson,</td>
</tr>
<tr>
<td>Finance Division</td>
<td>1</td>
<td>Bonnie Meyers</td>
</tr>
<tr>
<td>Marketing/PR Division</td>
<td>1</td>
<td>Nancy Livingston</td>
</tr>
<tr>
<td>Student Affairs Division</td>
<td>1</td>
<td>Janet Wacker</td>
</tr>
<tr>
<td>Student Representatives</td>
<td>3</td>
<td>Christine Grisard, Tiffany Ho, Aaron Longnecker</td>
</tr>
<tr>
<td>Facilities (ex officio)</td>
<td>1</td>
<td>Jim Tjossem</td>
</tr>
</tbody>
</table>

* - The student technology fee budget will be developed by the student representatives to the ITSAC, one faculty representative, one administrative representative and the AVP/CIO (or designee).
Sub-Committees:

Pursuant to Minnesota State Colleges and Universities Board Policies 2.3.1 and 5.11.1, a sub-committee comprised of the student representatives to the ITSAC, one faculty representative, one administrative representative and the AVP/CIO (or designee) will be established to create an annual student technology fee budget. This budget will be presented to the entire ITSAC as part of the overall campus technology budget development process.

Other sub-committees may be created by the ITSAC committee as necessary.

Expectations of Members:

All members participating in this committee will be expected to:

- Actively engage in the meetings, supported by consistent attendance.
- Bring a balanced perspective that promotes the optimal use of technology for teaching, learning and administrative activities at Century.
- Be representative of a larger, broader audience.
- Communicate activities of the ITSAC to their divisions/representative groups.
- Be proactive in suggesting technology improvements at Century.
- Complete all required tasks in a timely fashion.
- Remain open to all ideas.

Meetings:

ITS Advisory Committee meetings will be held at least monthly, on a schedule to be set during the first meeting of the ITSAC. Additional meetings will be held as determined necessary by the ITSAC members. Meetings will last one and one half hours.

Reporting:

Committee minutes will be taken and posted upon approval by the membership.
APPENDIX D
MNSCU SYSTEM STRATEGIC PLAN FOR 2006-10

A copy of the Minnesota State Colleges and Universities system strategic plan from 2006-10 is available on the web at

http://www.mnscu.edu/media/publications/pdf/strategic_plan_06_10findraft.pdf

It is attached below:
Ten years ago, Minnesota created a new system of public higher education by merging formerly separate systems of community colleges, technical colleges and state universities. Over the past decade, these institutions educated 1.2 million students. In addition to that achievement, the system devoted major efforts to bring our organizational climate, policies and administrative systems in line with the merger. That work continues, but we are now poised to take advantage of our collective strength to meet the challenges of the new century.

With that history in mind, we are pleased to present the system strategic plan for 2006 ñ 2011. This plan grows out of the previous three-year plan, retaining strategic directions in access and opportunity, quality and economic development of our state.

The new fourth strategic direction focuses on innovation. We see the challenges in global competition, other important demands on state resources and the growing recognition that virtually all young people will need higher education for career and life success. Innovation throughout the system, by the Board, by system leadership and by all faculty and staff, will be essential to achieving the quality, efficiency and capacity that Minnesota deserves.

Robert H. Hoffman, Chair  
January 2006  

James H. McCormick, Chancellor
Vision

The Minnesota State Colleges and Universities will enable the people of Minnesota to succeed by providing the most accessible, highest value education in the nation.

Mission

The Minnesota State Colleges and Universities system of distinct and collaborative institutions offers higher education that meets a wide range of individual learners’ personal and career goals, enhances the quality of life for all Minnesotans, and sustains vibrant economies throughout the state.

Guiding Principles

☐ Provide affordable access
☐ Focus on student success
☐ Work collaboratively and in partnership
☐ Advance diversity
☐ Promote global competency
☐ Practice stewardship
☐ Encourage innovation
☐ Demonstrate accountability
☐ Provide value
☐ Pursue quality and continuous improvement
☐ Meet community and workforce needs
Strategic Plan 2006-2011

Strategic Direction 1: Increase access and opportunity

Access and opportunity are fundamental to Minnesota State Colleges and Universities. Many of our institutions were founded to serve the sons and daughters of farmers and Main Street store owners. Today, that commitment continues as new generations of Minnesotans look to higher education to advance their careers and contribute to their communities.

Goal 1.1
Raise Minnesota is participation and achievement in post-secondary education by meeting the needs of students with diverse backgrounds and educational goals

Minnesota must increase the numbers of people with education beyond high school. Recently, the Citizens League called for an expectation that every Minnesotan should attain at least two years of post-secondary education. The Minnesota State Colleges and Universities system, which enrolls 61 percent of the state's undergraduates, is key to bringing more people to higher education and to increasing the number of graduates. Growth in educational attainment can happen only if our institutions find ways to enroll and graduate many more students from populations historically underserved by higher education. Equity in educational attainment is increasingly important to our state's future.

Goal 1.2
Maintain an affordable cost of attendance for Minnesota residents

Minnesota State Colleges and Universities have long been an affordable way for students to attend college, and our tuition and fees remain lower than those of other institutions in the state. However, the cost of education is a significant barrier to enabling more Minnesotans to attend college. When our students graduate, they face mounting debt burdens. Our commitment to this goal requires us continually to examine the impact of cost on the ability of students to afford our institutions and to develop solutions to maintain affordability, especially for students from low income families.
Goal 1.3
Work with other organizations to prepare all young people to graduate from high school and enroll in college ready for success

Too many students give up on higher education before they arrive at the doorsteps of our institutions. When they do enroll, a significant number of new high school graduates are not ready to succeed in college-level courses. As a state, we also need to increase the number of students of color who finish high school, a goal that begins with quality early childhood education and continues throughout the primary and secondary grades. We need all students to take the high school courses that prepare them for college, especially in mathematics. As a system, Minnesota State College and Universities is an founding participant in the P-16 Partnership, which works to accomplish this goal. Our institutions must work with schools in their regions to let students know what will be expected in college and to afford opportunities for early college enrollment for students who are ready. We bear a special responsibility to educate the child care workers, teachers, social workers, public health professionals and others who can successfully support and prepare today’s children for post-secondary education.

Strategic Direction 2: Promote and measure high-quality learning programs and services

Minnesota students have many choices in higher education; our degrees and courses must be of high quality. We must be able to prove to potential students, to employers and to the citizens of Minnesota that our academic programs and student services meet objective standards for quality.

Goal 2.1
Demonstrate high quality in all educational programs

To assure that all of our programs are up-to-date and externally validated, we participate in accreditation, standards-based program development and formal quality improvement processes. The quality of our programs must be reflected in the success of our graduates including their success in getting jobs that serve Minnesota and their professional aspirations. We also survey students and graduates about their satisfaction with the quality of the education at our colleges and universities.
Goal 2.2
Produce graduates who have strong, adaptable and flexible skills

Our graduates and their employers face new demands in the 21st century that will call upon solid skills in reading, writing, mathematics and speaking, the ability to learn and think critically, and technical and professional expertise that is globally competitive. In addition, our students need enriched opportunities to understand and participate in the global community. Assessment of student learning should be embedded throughout our academic and career programs. During the next five years, we will explore new ways to assess our students and assure that they meet high expectations, starting with core skills needed by all graduates. Surveys of employers who hired our recent graduates should be part of this assessment.

Goal 2.3
Provide multiple delivery options for learning programs and student services

While the importance of the relationship between teacher and student does not change, higher education must be provided in multiple ways to suit the learning styles, schedules and preferences which contribute to the quality of each student’s educational experience. Options are also critical to achieving our aspirations for growth in access and opportunity. In current technology, online options offer an attractive means of reaching students looking for the convenience of learning and services delivered over the Internet. We are committed to enabling faculty to enrich their online teaching skills and to establishing the system as a leader in online education. Our students expect online access and other flexible means to take advantage of student services and conduct business transactions.

Strategic Direction 3: Provide programs and services integral to state and regional economic needs

The people’s colleges are not ivory towers. As public higher education institutions, our colleges and universities have special relationships with their communities and regions. Our graduates are the backbone of the workforce in many industries, and our institutions serve the economic development and social vitality of their regions through service and access to leisure and cultural activities.
Goal 3.1  
As a major partner in educating Minnesota’s workforce, participate in identifying and meeting regional and statewide economic development priorities

From the Chamber of Commerce to the local workforce council, our administrators, faculty and staff should be involved in appropriate ways with economic development initiatives that can help inform academic planning and become productive collaborations. All communities benefit when we educate the pool of entrepreneurs and talent that will create new engines of economic growth. For most institutions, customized training is a significant service that supports economic development by maintaining a productive workforce. All career programs need to be aligned with needs of the workforce now and in the future. Professional programs, such as nursing and teaching, while fostering personal and intellectual growth as well as career objectives, also need to be connected to workforce needs in terms of the numbers of graduates and job-related learning outcomes.

Goal 3.2  
Support regional vitality by contributing artistic, cultural, and civic assets that attract employees and other residents seeking a high quality of life

Libraries, theaters, sports, lectures and exhibitions make our institutions centers for learning and recreation even for people who are not enrolled as students. Particularly in Greater Minnesota, our institutions are vital to the fabric of life. As Minnesota’s communities become more diverse, our colleges and universities have new opportunities to enrich cultural life and to enable area residents of many cultures to benefit from institutional resources and services.

Goal 3.3  
Develop each institution’s capacity to be engaged in and add value to its region

In addition to formal relationships with economic development initiatives, institutions can support their regions by stimulating community involvement of faculty and staff in most departments, including liberal arts and sciences. While faculty members at all institutions use their knowledge to solve local problems, state university faculty, in particular, engage in applied research that can assist their regions. Students at all campuses should have opportunities to link classroom learning with civic engagement provided through service learning and community-based research. Student services support for volunteer programs, civic awareness and community-based work-study also add to institutional capacity for partnerships in sustaining healthy regions.
Strategic Direction 4: Innovate to meet current and future educational needs efficiently

An innovative culture and climate will enable the system to take advantage of the work over the last decade to strengthen the ability of institutions to work together. Innovation will make it possible for the system to meet the expectations of today’s and tomorrows students. And innovation will be critical to reaching our potential as a solution to the state’s needs for an efficient way for all Minnesotans to complete some form of higher education.

Goal 4.1
Build organizational capacity for change to meet future challenges

To serve our students in the new century, we need to enlarge the system’s future orientation and capacity for change. At the system level and on each campus, we must become comfortable with taking risks and moving fast when opportunities arise. Renewed attention should be given to how the system identifies trends and future issues. Knowing that our students live in a world of global communications and competition, we need to incorporate global perspectives into a culture of innovation and strengthen our international outlook and programs. Our organizational structures need to be efficient and adaptable to sudden changes in the student and business markets. Technology to meet the service expectations of today’s tech-savvy students is essential to keeping up with new learning and teaching models, improving student convenience and gaining efficiency in business practices.

Goal 4.2
Reward and support institutions, administrators, faculty and staff for innovations that advance excellence and efficiency

Innovation means becoming a national and international leader, adopting best practices or just doing a job better or with greater efficiency. To promote innovation throughout the system, we will reward it. We will utilize features in the system funding allocation to reward institutions that take risks and innovate. We will work with our faculty and staff to identify and carry out ways to reward innovators with recognition, compensation and other benefits.

Goal 4.3
Identify and remove barriers to innovation and responsiveness

Our faculty and staff are hard-working and dedicated to helping students. But change can be difficult in a large organization. Some barriers to change may be due to organizational climate; others are embedded in state and federal legislation, system policies, formal
procedures and informal practices. We need to ask everyone in our system what barriers prevent innovation and responsiveness and then take action to remove unnecessary impediments and restrictions.

Goal 4.4
Hire and develop leaders who will initiate and support innovation throughout the system

The Minnesota State Colleges and Universities system needs people with vision, personal integrity and high standards who can motivate colleagues and challenge the status quo. Our presidents and senior administrators must be chosen for their leadership abilities and supported with professional growth opportunities. We need leaders in our academic departments, in our business offices and on our student services staff as well. Our practices for selection, development and retention need to address this essential foundation for progress in facing the future.

Goal 4.5
Promote accountability for results through a system of accessible reports to the public and other stakeholders

The system-level accountability framework enhances the ability of the Board of Trustees, system leaders and others to measure progress in achieving the goals of the strategic plan. Continuing implementation of the accountability framework should focus first on measures for the highest-priority goals. Performance results must be easily available to the public. This system-level framework should be complemented by accessible reports from institutions to prospective students and to their communities.

How the Strategic Plan Drives Results

The Board of Trustees and system leadership carry out the strategic plan by adopting and being accountable for workplans which identify specific initiatives and outcomes.

☐ A system workplan, adopted each year, establishes the short term actions that will be taken to advance the longer term strategic goals.
☐ The chancellor’s priorities are to achieve the system workplan. The Board of Trustees reviews his performance in leading the system on these initiatives annually.
☐ Presidents use the strategic plan to establish campus priorities. The chancellor and each president negotiate the activities and results that the institution will pursue during the coming year, and presidents are evaluated on the progress they make.
The Minnesota State Colleges and Universities system measures performance in meeting the goals through the system-level accountability framework. The framework may be viewed at http://www.mnscu.edu. Following adoption of the strategic plan, measures in the framework are adjusted if necessary to reflect new goals, starting with goals that are of the highest priority.

Finally, the strategic directions and goals in the plan will be reflected in the budget requests of the system during the next five years.
APPENDIX E
CENTURY COLLEGE STUDENT SENATE LONG RANGE STRATEGIC PLAN

Long Range Strategic Plan
Century College Student Senate
June 2005 – May 2006

Our Mission Statement: The Century College Student Senate is a student elected group whose purpose is to support and represent student rights.

Goal 1: Students on Committees

Objective: To have maximum participation from students and to develop a more consistent meeting structure for campus wide committees. In the past students have not taken the initiative to make their voices heard or their presence made on Century College’s faculty committees. The committees give students the opportunity to know the status, and to have discussion on, current issues affecting students at Century College. Because these committees discuss issues concerning students, and since it provides a direct link between students and the administration, we as the Student Senate feel that more participation from students and a more consistent meeting structure is needed.

Timeline: July and August 2005- Executive committee members will meet with the President of the Student body to discuss what committees there will be in the following year and which of those students will be a part of.
- A list of the committee’s students will serve on will be comprised with the number of students assigned to each committee along with approximate committee meeting times.
September 2005- Students to serve on each of the committees will be recruited.
September 2005 through May 2006- Student Senate members will find and post committee meeting times in a reasonable amount of time prior to the committee meetings, will keep and post records of committee reports, and continue to ensure that students are attending the meetings.

Goal 2: Club Organization

Objective: To improve the methods of organizing Century College’s clubs. It has been shown by the Clubs formulated through the Student Senate and using Century College funds that the money allotted to them is not always used towards campus activities. Furthermore, many clubs have had a difficult time keeping up with reports and attending meetings. Because Clubs provide activities for students, ways to get to know others and a unique culture to Century College, as the Student Senate we feel it is important to keep clubs organized and on task in order to keep them active. Therefore, throughout the 05’/06’ school year, the Senate will improve the organization of its clubs through better communication and set guidelines.

Timeline: September - November 2005- Senate will discuss a clubs first $100 dollars use towards an on campus activity.
- Senate will have all clubs giving reports at Student Senate meetings.
- Senate will make clear to club representatives the requirements for keeping an active club.
September 2005 through May 2006: The Student Senate President will remind club representatives on the first Wednesday of the month to have their completed reports ready the Friday before the third Wednesday of that month.
Goal 3: Improve Efficiency of Bookstore

Objective: To improve the quality of Century students book buying experience. It has been known for the bookstore to get an overwhelming amount of students trying to buy books for fall semester all at the same time. It has created long lines and frustration for the students. Especially new students attending Century whom typically don’t know about this problem and so they easily get caught up in it. As the Student Senate we feel it is our duty to help out students in this situation. We hope to fulfill this goal by doing at least two things: asking the bookstore to post out of stock books on the book store windows, and increasing awareness of online book buying.

Timeline: July and August 2005- Executive committee will meet with the President of the student body and will discuss concerns over the bookstore.
January 2006- Executive committee members will explore ways to improve awareness of online book buying and then implement ideas to improve the communication.

Goal 4: Parking Lot

Objective: For several years now the deteriorating condition of the parking lot has been a concern of students. The issues surrounding the parking lot include but are not limited to: congested entrance points, confusing and inefficient layout, difficult and dangerous pedestrian movement to and from the parking lot, and an insufficient number of parking spaces. As a representative of the student body the Student Senate feels this concern should be addressed by the administration and it has. Discussion of an increased parking fee to pay for a new parking lot has gone underway and so has discussion of when the project will start.

Timeline: August 2005 through May 2006- Executive members will meet with the President of the College at least twice to discuss how much the fee will be for students, when it will go into effect, and what it is used for.
September 2005 through May 2006- Executive members will find up to date information on the status of the project through the Parking Lot and Facilities Committee.

Goal 5: Environmental Protection

Objective: To increase use of recycle bins on campus. In order to meet environmental standards set forth by the MnSCU board policy 5.17, and to set a good example for students, it has become a goal of the Student Senate to implement environmentally friendly practices into Century College. Last year the Senate tried to get recycle bins into every classroom but only ten were ordered. This year (June 05’ to May 06”) the Senate will work to increase student use of the bins so that more can be ordered.

Timeline: January 2006-The full senate will discuss ways to get more bins and promote student use of them.
February 2006- Senate will pursue to buy more recycle bins if recommended by Student Senate.
September 2005 through May 2006- Senate will continually promote environmentally friendliness.

Goal 6: Student Knowledge of Available Services

Objective: Increase knowledge to students of services including but not limited to tutoring, academic support, direct deposit, online book buying, club involvement, The Bridge Newsletter, capabilities of the student portal and D2L, and Student Senate involvement. From student opinion, the Senate has become aware that a reasonable amount of Century College students do not know about opportunities and services
available to them. Many of these services could greatly better a students experience at Century College and help them through college in general, therefore, the Senate feels it is important for students to be aware of the services available and what each can do for them.

Timeline: January 2006- Senate will find out in what ways these services are currently being advertised.
- The executive committee will ask club representatives to talk to their clubs and bring back any comments or suggestions on ways to improve student knowledge of available services.
February through March 2006- The executive committee will brainstorm ideas on how the methods of letting students know about services could be improved.
- The executive committee will bring their ideas to Dr. Bruner, Vice-President Student Services, and to the marketing committee through student representatives.

Goal 7: Maintain Communication between Senate and Administration

Objective: To keep in line with MNSCU board policy 2.3 the senate would like to insure that student opinion is being taken into consideration during the decision making process. In some instances in the past policy has changed before student opinion was heard and, as the representative of the students, the senate feels it is our duty to ensure that it does not occur again in the future. The staff at Century College has always welcomed the senate and we feel any miscommunications were not intentional; our goal is to keep working with the staff this year in order to ensure our voice is heard on all issues possible (exceptions stated in MNSCU policy 2.3 part 3) before any policy goes into effect.

Timeline: July, August, September 2005- Senate executive members will meet with Dr. Litecky to discuss how and when contact will be made for the coming year.
September 2005 through May 2006- Senate members will let Dr. Litecky and other administration know in a timely manner about any concerns and will make sure students are attending committee meetings.

Goal 8: Food Service

Objective: To explore ways of lowering the price of food and increasing the choice of food on campus. This has been made aware to Senate through verbal student opinion and student surveys. In order to make Century a welcoming place for all, and to provide choices on all levels, the senate feels it should evaluate the current food service on campus and look to see if there are any options that will work for students and the food service alike.

Timeline: September and October 2005-Gather data on student’s opinions of food service.
- Gather student suggestions of ways in which the food service could improve.
November 2005-Food Committee will meet and discuss where to bring the ideas.

Goal 9: Capital Bonding Project

Objective: To support the Capital Bonding Request for the new science and library wing that will be placed on the east campus. We will include our support of the request for asset preservation to the current and existing facilities at Century College, and in the political process involving these requests.

Timeline: October 2005- Senate will pass a resolution and forward in writing this resolution to the chairs of the Capital Investments Committee of the House, the Senate, and the Governor’s Office.
Goal 10: Organization of Intercollegiate Athletics

Objective: To form an information file of what intercollegiate athletic teams there presently are and to support additional female participation in the intercollegiate golf program. The Student Senate supports the return of limited basis intercollegiate athletics and so would like to plan for their participation in the future through the use of organization.

Timeline:
- January 2006- Find out if any additional athletic teams are proposed to be added and what the timelines may be for them at Century College.
- February 2006- Create a database of the intercollegiate athletic teams for the Student Senate.
- Give written support for additional female participation in the current program.

Goal 11: Develop a 3-year Strategic Plan

Objective: To develop and implement a long-range strategic plan for the student senate that would cover three years instead of one, to be reviewed annually with a Fall and Spring semester Action Plan to coincide with it. The senate feels this would be an important step towards clarifying our vision and values and also towards creating a unified, goal-oriented organization.

Timeline:
- December 7, 2005- Present the proposed change of the constitution to the full Student Senate.
- January 2006- If senate approves and adopts the change a draft will be presented to the Senate.
- February 2006- Senate will vote on the adoption of the three-year plan and it’s coinciding Spring semester Action Plan.

Goal 12: Technology

Objective: To make the use of the technology available to Century College students on campus easy to use and equally accessible.

Timeline:
- November 2005- Technology Committee will meet to discuss any current issues with technology at Century.
- January 2006 through May 2006- The Technology Committee will decide on necessary changes and bring them forth to the administration for discussion.

Additional Note:

Student Knowledge of Available Services

By increasing students’ awareness of the many options they have at Century College more students will have the opportunity to go above and beyond their current curriculum and to meet new people and make connections. It will make their Century experience memorable and the skills and experience they may gain will be invaluable as they move forward into a career.

Optional ways to increase student awareness of available services:
- Utilize teachers as a means of communication.
• Make a link on the Century College home page that brings a user to information on the ways a student can enrich their experience outside of the classroom and how to fully utilize all of the resources available to them on campus.

• Include a page in each course schedule every semester mentioning that there are clubs and enrichment activities always happening at Century and that help for academics is available at the reading/writing/math/tutor centers.

• Ask SOAR representatives to verbally tell new students what getting involved on campus can do for them and how important a new start through college can be. Then have them point the students in the right direction as to where they can find all of the information on available services and enrichment activities.

• Have student ambassadors/representatives go around to classes on the first day fall semester and talk to the students for a couple of minutes. (or this could be done by the teachers, if willing)

• Ask a counselor (or whoever is best fit) to hold a seminar on Student Success Day on how to stand out amongst others in order to get a job and the ways you can do that at Century.

We want all Century students to be the best, let’s let them know how they can be.

Contact: Ryan Keho  keho0001@go.century.edu
EXECUTIVE SUMMARY

The Century College Master Academic Plan for 2005-2011 offers broad—often cross-divisional—strategic directions focusing on academic excellence, student success, diversity and global awareness, collaboration-partnerships, and educational technology.

The 2005-10 academic plan is strategic in nature and, therefore, not intended to be inclusive of the many vital on-going efforts and initiatives that contribute to the vibrant teaching and learning environment at Century College. Individual faculty, departments, and programs, along with the academic affairs administrators and staff, will continue to promote excellence through these on-going initiatives, while working hard to achieve recognized advances in the six strategic directions established with this plan.

Century College aspires to make demonstrable progress in these areas over the next five years so that by 2011 we will be

...recognized locally and nationally as a welcoming, inclusive institution with high academic standards and outcomes

...recognized as a leader throughout the state of Minnesota for our development and implementation of academic and student services and programs that encourage and support student success for an increasingly diverse student population

...recognized among students, faculty, and staff throughout the Minnesota State Colleges and Universities system and the state for our commitment to diversity and global awareness

...recognized as an integral part of the community, serving as an intellectual and cultural center for citizens

...recognized among students, faculty, and staff throughout the system and the state for our innovative commitment to all aspects of educational technology.

Incremental progress toward these over-arching goals will be measured and tracked through the development of innovative and ambitious action projects on an annual basis. A Master Academic Plan Annual Report will be distributed beginning in the fall of 2007 to celebrate accomplishments and ensure that continued progress has been achieved.
APPENDIX G
MASTER FACILITIES PLAN: 2005-2011 - EXECUTIVE SUMMARY

A campus master plan is a combination of graphic and narrative delineations of an institution's projection of the state of use and development of its land, the natural resources of its land, current and proposed buildings or facilities to be built on its land, and the infrastructure necessary to support those uses and facilities in an efficient and harmonious manner. The campus master plan arises out of the facilities and facilities support requirements for the programs and strategies (strategic plans) the institution will employ to accomplish its mission.

This document is one of a series of documents that support the vision of Century College. The Master Academic Plan provides strategic directions focusing on academic excellence, student success, diversity and global awareness, collaboration-partnerships, and educational technology. The Technology Master Plan provides operational logistics required to implement the technology goals of the Academic Master Plan. This Facilities Master Plan provides a strategy to implement the necessary facilities revisions, enhancements and maintenance required to support the strategic direction established within the Master Academic Plan. An additional plan has also had impact on the Facilities Master Plan. The Century College Student Senate approved a Long Range Strategic Plan in academic year 2005/06 which addresses several facilities issues (e.g., the bookstore, parking lots, increased access to technology).

The Century College Master Academic Plan outlines five strategic directions that provide focus at the highest level. These Academic goals provide guidelines for the framing of facilities goals that established as follows:

- **ACADEMIC EXCELLENCE** - In 2010 Century College will be recognized locally and nationally as a welcoming, inclusive institution with high academic standards and outcomes.
  - Similar programs, departments and services are clustered together to create ‘centers of excellence’ in order to increase efficiency and to encourage collegiality.
  - Departmental resource areas are allocated within the campus organizational diagrams that will allow faculty the space necessary to implement instructional methods for various types of learners.
  - Developing flexible learning environments will enhance quality of classroom environments.
  - Student service centers and support will be welcoming and accessible to all students.

- **STUDENT SUCCESS** - By 2010, Century College will be recognized as a leader throughout the state of Minnesota for our development and implementation of academic and student services and programs that encourage and support student success for an increasingly diverse student population.
  - A more welcoming environment with more glass and natural lighting for students will be developed.
  - Access to student services will increase. The expanded student space will provide comfortable environments, waiting areas.
  - Academic Testing Centers will allow faculty to arrange flexible monitoring of student progress in small or large groups.
  - A Student Center located in the heart of the campus will create a desire for students to remain on campus, directly connected to the learning environment.
• DIVERSITY AND GLOBAL AWARENESS – By 2010, Century College will be recognized among students, faculty, and staff throughout the Minnesota State Colleges and Universities system and the state for our commitment to diversity and global awareness.
  
  o Multi-Cultural Center and Academic Support have a direct tie to the student center. This arrangement encourages planned and unplanned interaction that is crucial to a environment of student support and encouragement.
  o An Office of Global Education located within the student support center will encourage international study, infuse intercultural themes in appropriate ways into the curriculum, and create a physical presence for students interested in global study and global awareness.

• COLLABORATION – PARTNERSHIPS – By 2010, Century College will be recognized as an integral part of the community, serving as an intellectual and cultural center for citizens.
  
  o Flexible facilities improvements within the fine arts and applied arts departmental areas will increase the opportunities for community collaborations.
  o Expanded Continuing Education and Customized Training will allow for increased partnerships with the community.

• EDUCATIONAL TECHNOLOGY - By 2010, Century College will be recognized among students, faculty, and staff throughout the system and the state for its innovative commitment to all aspects of educational technology.
  
  o Technology centers connected to academic centers provide an overlap of services. This connects technology as an integral support for all academic programs.

• CONTINUOUS IMPROVEMENT: In 2010, Century College will be more visibly committed to systematic continuous improvement in teaching and learning.
  
  o A new Century planning committee will be formed to ensure an integrated approach to planning and the AQIP process will create an environment of ongoing action projects dedicated to continuous improvement.

In addition to the academic related focus identified above, this Facilities Master Planning process revealed serious issues relating to aesthetics appearance due to the age and building materials used in the original campus construction and deferred maintenance. Campus beautification, a comprehensive signage plan, landscape enhancements, and an overall commitment to developing an inviting and attractive campus were major themes that were addressed in college meetings, all college planning events, and various committee initiatives.

President Litecky charged the facilities committee, through the Facilities Master Planning process and the establishment of a design committee, to address campus-wide renovation and new building design that would aesthetically connect to the current campus buildings, the bridge, and any new buildings and renovation design. Additionally, the Classroom Design Committee has been formed to facilitate the development of physical learning environments (i.e., classrooms, labs/centers, and study spaces) that support the varying and diverse needs of our student population. Appendix attachments include the new interior design standards, entry image enhancement concepts, facilities maintenance requests, and the president’s charge to campus committees.

Finally, the master facilities plan drafts were presented at Shared Governance, All College Council and two All-College meetings during the academic year. Materials were place on the Century College Common Drive (folders on the college server that are accessible to every college employee) and hard copies were place in the libraries and posted in the reception area during the All-College Employee Development Day. Employees were encouraged throughout the academic year to comment on the plans.
Main Building East

Space Utilization Summary:

- Classrooms and labs with a high utilization rate, but generally lower utilization rate than West Campus, especially in specialized classrooms and labs.
- East Academic Support Center is crowded and lacks visibility. There is generally a lack of spaces for students to gather to study and socialize.
- Administration
- District 916 Classrooms and Labs
- Continuing Education Administration and Classrooms
- Cafe
- Information Technology, Public Safety, Duplicating, Laundry

Condition Summary:

- The building has had several recent renovations, including Nursing, Continuing Education, and Administration spaces.
- EMS is in need of expansion and renovation to fulfill accreditation requirements.
- The main roof deck of the facility is coated with an Asbestos Insulation. There are numerous electrical code violations above the suspended ceiling due to the fact that wires cannot be run properly because of the Asbestos.
- The rubber seals around the aluminum windows have failed allowing moisture to penetrate the interior of the building, leading to aesthetic, energy efficiency, and moisture issues.
- The brick veneer requires major restoration.
- Mechanical systems are past their useful life span.
- Interior finishes are dated and worn.

Structural System:

- Concrete

Current HEAPR Requests:

- 2014 | Replace Fire Pump
- 2016 | Window & Wall Repair
- 2018 | Roof replacement
- 2018 | Entry & exterior door repair
- 2018 & Ongoing | Mechanical/HVAC System Replacement (serves all campus)
- Ongoing | Main Corridor Asbestos Abatement

Recommendations:

- Renovate and expand Academic Support and student activity space. Academic Support Center currently under renovation through Repair & Betterment funds.
- Centralize 916 programs to East side of building.
- Renovate EMS space (2014 Repair & Betterment Project)
- Consolidate, renovate, and expand outdated design and technology labs and classrooms into Advanced Technology and Design Center, including Math department relocation. (Begin with 2014 Campus Initiative requests, request 2016 GO Funds for Applied Technology Center, and complete with 2028 GO Funds)
- HVAC is a major component of repairs backlog as well as stakeholder complaints. Replacement and upgrades are recommended to be completed through 2018 HEAPR request.

Additional Comments:

- Great strides in reducing the facilities FCI will be accomplished by replacing the HVAC mechanical equipment and controls. The mechanical systems on East Campus have been seriously neglected over the years resulting in a very inefficient and energy-wasting system.
Existing Program
Floor 1

- Bruening Room
- Auto Mechanics
- ESL and Trin
- Commercial Vehicle Tech
- Information Technology Services
- Auto Body
- Welding
- Painting

- General Classroom
- Lab
- Faculty Offices
- Study Space
- Circulation
- Vertical Circulation
- Conference
- Student Services
- Administration
- Bathrooms
- Mechanical
- District 916
- Daycare
Existing Program
Floor 2

Lincoln Mall
President’s Suite
East Academic Support Center
CE/CT
Cafeteria
Bridge

General Classroom
Lab
Faculty Offices
Study Space
Circulation
Vertical Circulation
Conference
Student Services
Administration
Bathrooms
Mechanical
District 916
Daycare
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

Existing Program
Floor 3

Medical Assisting
Nursing Lab
Dental

Cosmetology
Nursing
Radiology

General Classroom
Lab
Faculty Offices
Study Space
Circulation
Vertical Circulation
Conference
Student Services
Administration
Bathrooms
Mechanical
District 916
Daycare
3.42

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

Main administrative office at second floor South entry.

New classroom.

Lincoln Mall is highly utilized space for a wide variety of events including lectures and meals.

Commercial kitchen is larger than required.

East Academic Support Center is crowded with outdated furnishings.

Temporary partition walls are common, both original to building, and to accommodate growth by expanding space into hallway.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

Dropped ceiling above EMS space is unutilized.

EMS lab.

Welding lab.

Automotive Labs.

CNC router.

Partial Fab Lab.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

InformaƟon technology offices near Kopp Technology Center.

Bruening room accommodates larger lecture courses, but furnishings and layout are not ideal.

Laundry.

First floor typical hallways are dark, outdated, and have limited student gathering space.

Duplicating.

Small maintenance shop.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

New Radiology suite.

Cosmetology lockers occupy the third floor hallways.

New Nursing suite.

Nursing lab and classroom shared by Century and 916.

Busy Bees daycare occupies space on the first floor of East Campus.

New Nursing suite.

Cosmetology classroom is one example of 916 space leased from Century.
Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.

Main entrance on South via ramp over “moat” is not ADA accessible.

North side dominated by outdoor work yards and maintenance bay doors.

Loading dock at North.
Section 5: Proposed Framework for Building Development

Facilities Planning Process
The Master Facilities Plan is a macro-level study that establishes a flexible and sustainable framework for campus growth, renewal and enhancement that best supports Academic planning and student success. The Master Plan provides general guidelines for decisions on facilities development for the next 30 years. This is a first stage of the facilities planning process and is the reference point for future micro-level facilities planning discussions. All changes to current facilities would require the involvement and planning with the departments affected by the change. The plan helps to identify areas where future in-depth discussions and planning may occur. The conversations at the micro-level will cover specific student, department and College needs. All major changes will only occur with significant additional funding, usually in the form of State capital bonds. If no funds are received, no major changes will occur. Smaller changes would occur through the College facilities planning process found on the College's Sharepoint site under Facilities.

Master Plan Goals
As a result of the multiple meetings with staff, faculty, and administration, the campus master plan for Century College established the following preliminary goals:

1. Support Student Success through more places on campus for students to study, congregate with groups, and access resources
2. Cluster departments to spatially align programs and create Learning Commons integrating faculty offices, classrooms, resources, and student study space
3. Develop flexible classrooms for active learning
4. Move away from sprawling, linear buildings and develop outdoor campus quads through new construction to enhance wayfinding and program identity
5. Identify top HEAPR projects
6. Identify top capital improvement projects
7. Improve environmental quality
8. Demolish outdated and underutilized facilities
9. Renovate aging buildings and infrastructure

Facilities Development and Improvement

Replace and improve outdated facilities
Century currently has a $208.7 million replacement value and a very high backlog of asset preservation totaling $48.4 million with a 5 year projected renewal needs of more than $51.3 million. Aggressive pursuit of HEAPR money, wise spending of capital bonding and increased repair and betterment funding by the institution must happen simultaneously. In addition, demolition of outdated facilities (approximately 10,000 gsf) is recommended as an appropriate action to lower the continued cost of renewal to facilities that have outlived their expected facility life span. These facilities include the Horticulture Building and Service Station utilized by 916.

Reduce campus space utilization
Century has among the highest space utilizations in the MnSCU system, and an increase in campus space is necessary to both meet current program demands and expand programs. This need does not align with the MnSCU goal of no net gain of square footage. This master plan seeks to better utilize existing space before building new in order to balance MnSCU objectives with Century’s need for more space to ease overcrowding and provide high-quality spaces to attract students.

Additionally, the Administrative Finance Committee will regularly review summary reports generated from the CEMRS system to determine where there is additional capacity, opportunity for utilization improvement, or need for growth.

Provide improved program identity
This plan recommends that academic programs develop easily identifiable spaces and facilities which will strengthen the program “brand”. This will create a stronger “program culture” for students, prospective students and staff. (See 5.4)

Energy conservation
The need for upgrades to HVAC, building envelope, and fixtures provides the opportunity to significantly reduce energy consumption. With new construction and significant remodeling, high efficiency heating, cooling, ventilation, and lighting systems should be used to reduce energy consumption and long-term costs while increasing comfort of students, faculty, and staff. HEAPR projects, particularly when Guaranteed Energy Savings Contracts are used, are prime candidates for energy conservation projects.

Minnesota Career Fields, Clusters & Pathways
The grouping of departments in the Learning Commons and their proximity to each other is based upon the Minnesota Department of Education Career Fields, Clusters and Pathways organization of disciplines. Century plans to encourage collaboration among related fields by spatially aligning departments. (See 5.2 through 5.7)
Learning Commons

Century faculty, administration, and students identified a desire to see classrooms, faculty offices, tutoring, and student study space centralized by department. This grouping of multiple functions by department is referred to as a “Learning Commons.” Below are examples of a model Learning Commons, an existing Century space, and a proposal of how it may be adapted to house a learning commons.

PROPOSED LEARNING COMMONS Prototype Location

EXISTING

PROPOSED LEARNING COMMONS

MINNESOTA CAREER FIELDS, CLUSTERS & PATHWAYS

See appendix for full-size document.

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Program Clusters

One of Century’s major challenges is the lack of a clear and consistent organization of similar departments and disciplines. In addition to making it difficult for students, employees, and visitors to find their way around campus, the disaggregation of departments limits the ability to develop the Learning Commons described on the previous page. For example, on West Campus Philosophy faculty offices are found on the east end of Floor 1 as well as the west end of Floor 3, Tutors Linked to Classes assisting students in these classes are located on Floor 2, and a Philosophy class may be taught in any of the classrooms scattered across all three floors. Such an arrangement limits potential for faculty-student interaction and development of program identity.

One of the major goals of planning efforts was to spatially align programs into clusters to enhance wayfinding, increase efficiency, and support programmatic potential.

The diagrams on the pages 5.4-5.7 show the proposed long term reorganization of Century departments based on the goals of developing Learning Commons and consolidating similar programs. Renovations and additions will be necessary to achieve many, but not all, of these program rearrangements. This is a framework on which future projects should be based, enabling Century to consider long-term implications when meeting short-term needs.

Identified at right are the first five projects that will begin to rearrange Century departments toward a more logical, clear, and flexible arrangement. Many of these projects are also listed under the Capital Bonding Projects and Repair and Betterment Projects.

On the following diagrams, bubbles represent approximate location of programs in order to give an overall sense of proposed program organization. Potential additions are shown in gray. It is understood that these additions and resulting shuffling of program will occur only if funding is granted. The key on the right-hand page can be used to find the approximate location of a department within a cluster.

These diagrams provide a basic taxonomy of most programmatic areas. It is understood that not all disciplines are explicitly listed in the diagrams. The actual clusters or department groupings will be created based on the College’s own culture and needs. The Career Fields Clusters provides a basic starting point for future conversations.

2014 Repair & Betterment Project | Expand & Renovate EMS (East Campus)
This project will further development of a Human Services cluster by restructuring and expanding EMS classrooms and offices. EMS space will expand into current laundry and potentially duplicating spaces, while these programs will move to be adjacent to existing administration space.

2014 Capital Request (Campus Initiative) | Classroom Renovation (East Campus)
This project begins development of the Applied Technology Center program cluster through the renovation of classroom space, completed through the 2018 Capital Request below.

2015 Capital Request (Revenue Bond) | Student Center Renovation & Addition (West Campus)
This project would better utilize space at the center of West campus, which currently is dominated by poor circulation, and provide a clear student-focused hub for studying, connection, support, and recreation.

2014/2016 Capital Request (GO Bond) | Classroom Addition (West Campus)
Design funding is 2014 Capital Request. An addition on West would enable moving VCT to West to further develop a Fine and Performing Arts Cluster, adding an emphasis on career readiness and supporting collaborative potential for all programs.

2018 Capital Request (GO Bond) | Applied Technology Center (East Campus)
This project develops the first true Learning Commons, moving Math to East Campus and enabling interaction with Physics and Engineering departments. In addition to classrooms and offices, student study space and technology labs will be developed. The relocation of Math frees up offices and classrooms on West Campus for relocation of ESOL/TRIN from East. This move of language-centered programs nearer to other language departments on West allows for collaboration and sharing of resources. Vacated space could support ECAD and Engineering programs.
Program Clusters Concept - West Campus

Floor 3

Floor 2

Floor 1

Student Center Renovation & Addition
2015 Capital Request (Revenue Bond)

Classroom Addition
2014/2016 Capital Request (GO Bond)

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
West Campus
First Floor
- **A** Foundation Knowledge and Skills (FKS)
  - Health/PE
- **C** Arts, Audio/Video Technology, and Communications (AAVTC)
  - Fine Arts
  - Visual Communication Technologies
  - Theatre Arts
  - Music
- **B** Student Support
  - Student Services
  - Student Life
  - Cafeteria
  - Bookstore
  - Multicultural/LGBTQ

Second Floor
- **D** Foundation Knowledge and Skills (FKS)
  - Health/PE (locker rooms)
  - Sports Management
- **G** Arts, Audio/Video Technology, and Communications (AAVTC)
  - Music
  - Theatre Arts
- **H** Foundation Knowledge and Skills (FKS)
  - Communication
- **F** Student Support
  - Academic Support Center
  - TRIO/Access Center
  - Counseling/Career/Testing
  - DARS
  - Admissions
  - Records
  - Financial Aid
  - Service Learning
- **E** Other
  - Administration
  - Academic Deans
  - Business Office
  - Finance
  - Institutional Effectiveness

Third Floor
- **I** Foundation Knowledge and Skills (FKS)
  - Social and Behavioral Sciences/Humanities
    - Anthropology
    - Economics
    - Geography
    - Global Studies
    - History
    - Humanities
    - Individualized Studies
    - Philosophy
    - Political Science
    - Psychology
    - Sociology
    - Women & Gender Studies
  - English/Reading/Student Success
    - English
    - Reading
    - Student Success
  - Languages
    - Chinese
    - Spanish
    - ESOL
    - Translating and Interpreting (TRIN)
- **J** Student Support
  - Computer Lab

Out Building
Agriculture, Food, and Natural Resources
- Horticulture

To Be Determined
- Education
- Paraeducation

Key
- Foundation Knowledge and Skills (FKS)
- Engineering, Manufacturing, and Technology
- Health Science Technology
- Human Services
- Business, Management, and Administration
- Arts, Communications, and Information Systems

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Program Clusters Concept - East Campus
East Campus

First Floor

- **2|Information Technology (IT)**
  - Computer Science
  - Computer Information Systems
  - Computer Forensics
  - Info and Telecommunications Tech
  - Microcomputer Support Technology
- **4|Manufacturing (M)**
  - Applied Technology Labs
  - Welding
- **5|Transportation, Distribution, and Logistics (TDL)**
  - Auto Body Technology
  - Automotive Service Technology
- **6|Science, Technology, Engineering, and Mathematics (STEM)**
  - Engineering
  - Solar and Renewable Energy
  - Fab Lab
- **7|Architecture and Construction (AC)**
  - Engineering CAD Technology
  - HVAC
  - Facilities Systems Technology
  - Interior Design
  - Kitchen and Bath Design
- **9|Health Science (HS)**
  - Orthotics and Prosthetics
- **10|Law, Public Safety, Corrections, and Security (LPSCS)**
  - Law Enforcement
  - Public Safety
  - Criminal Justice
  - EMT
  - EMS
  - Paramedic
- **1|Student Services**
  - Library
- **Other**
  - **3|Century IT**
  - **8|Facilities**
  - **8|Public Safety**
  - **11|Busy Bees**
  - **12|916**

Second Floor

- **13|Science, Technology, Engineering, and Mathematics (STEM)**
  - Biology
  - Chemistry
  - Earth Science
  - Physics
  - Math (new Learning Commons within Main Building)
- **14|Business, Management, and Administration (BMA)**
  - Accounting
  - Business
  - Marketing
  - Marketing Communications Technology
  - Office Technology
  - Office Technology-Medical
- **20|Human Services (HuS)**
  - Cosmetology
  - Student Support
  - **16|Academic Support Center**
  - **15|Cafeteria**
  - **17|Event Space**
- **Other**
  - **19|Administration**
  - **18|CECT**
  - **21|916**

Third Floor

- **22|Science, Technology, Engineering, and Mathematics (STEM)**
  - Biology
  - Chemistry
  - Earth Science
  - Physics
- **23|Health Science (HS)**
  - Dental Hygiene and Assisting
  - Medical Assisting
  - Nursing
  - Nursing Assisting
  - Radiological Tech
  - Chemical Dependency
  - Health Sciences Broad Field
  - Human Services
Repair & Betterment Projects

The chart at right lists Repair & Betterment projects identified for short, mid, and long term development. More detail follows for building projects highlighted in orange, and details for top site projects can be found in Section 4. The following have been identified as top priority projects for college-funded projects:

**West Campus**
A. Counseling Center Renovation  
E. West Academic Support Center  
F. Locker Rooms  
G. Theater Upgrades  
H. Theater Lobby Upgrades

**East Campus**
B. EMS Remodel  
C. Orthotics & Prosthetics (TAACCT Grant)  
Description of project forthcoming  
D. East Academic Support Center
Top Repair & Betterment Projects

The following ranked projects are intended to respond to aging infrastructure, new teaching methodology, evolving instructional technologies, and changing market trends on a special small project basis and funded by the college. Creative financing using college operating funds, private partnerships, and other public resources should be considered to provide additional support and upgrading for the facilities and academic programs.

<table>
<thead>
<tr>
<th>Project</th>
<th>SF Renovated</th>
<th>Cost in $1,000s</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling Center Renovation</td>
<td>4,950</td>
<td>72-90</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>EMS Remodel</td>
<td>8,000</td>
<td>255-282</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Orthotics &amp; Prosthetics Renovation/Expansion</td>
<td>TBD</td>
<td>200</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>East Academic Support Center Renovation</td>
<td>1,500</td>
<td>29-36</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>West Academic Support Center Renovation</td>
<td>2,200</td>
<td>37-46</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Locker rooms Accessibility/ Renovation</td>
<td>TBD</td>
<td>180-210</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Theater Upgrades</td>
<td>TBD</td>
<td>&lt;200</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Theater Lobby Upgrades</td>
<td>2,600</td>
<td>78-91</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>

Priority One 2014 | Counseling Center Renovation (West)

**Scope:** Construct two new offices, new reception area, and update fixtures and finishes throughout.

**Projected costs:** $575,000

**COSTS:**
- Construction - $72,000 - $90,000
- Abatement - Allowance (By College)
- Furnishings - $10,000
- Technology - Allowance (By College)

Priority Two 2014 | EMS Renovation (East)

**Scope:** Remodel existing space and expand to new spaces to accommodate offices and reception, training room, skill stations, and classrooms.

**Projected costs:** $575,000

**COSTS:**
- Construction - $255,000 - $282,000
- Abatement - Allowance (By College)
- Furnishings - $35,000 - $48,000
- Technology - Allowance (By College)

Priority Three 2014 | Orthotics & Prosthetics (East)

**Scope:** Move offices into renovated classroom. Renovate vacated office space to accommodate new equipment, lab, and classroom space for new ped program.

**Projected costs:** $200,000 funded through U.S. Department of Labor, Trade Adjustment Assistance Community College and Career Training (TAACCT) Grant
A. Counseling Center - 4,950 ± GSF

KEY
1. Office (10’x11’)
2. Gypsum Board Partition
3. Door w/ Sidelights
4. Reception Desk
5. Paint (throughout)
6. Carpet (throughout)
7. ACT Ceiling (Paint Existing Grid)
8. Lighting Upgrade

COSTS:
Construction - $72,000 - $90,000
Abatement - Allowance (By College)
Furnishings - $10,000
Technology - Allowance (By College)
B. Emergency Medical Services (EMS) - 8,060± GSF

KEY
1. Reception
2. Office
3. Director’s Office
4. Hoteling
5. Conference
6. Electrical (Existing)
7. Storage/Training Room
8. Training Room
9. Skill Stations
10. Classroom
11. Insulated Garage Door
12. Storage Mezzanine (Above)
13. Seating Area
14. Entrance

COSTS:
- Construction: $255,000 - $282,000
- Abatement: Allowance (By College)
- Furnishings: $35,000 - $48,000
- Technology: Allowance (By College)
D. East Academic Support Center - 1,500± GSF

KEY
1. Doors w/ Glazing
2. Signage (Above)
3. Existing Furniture
4. Tutoring Station
5. Carpet (throughout)
6. ACT Ceiling (Paint Existing Grid)
7. Lighting Upgrade

COSTS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Cost Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td>$29,000 - $36,000</td>
</tr>
<tr>
<td>Abatement</td>
<td></td>
<td>Allowance (By College)</td>
</tr>
<tr>
<td>Furnishings</td>
<td></td>
<td>$12,000 - $15,000</td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td>Allowance (By College)</td>
</tr>
</tbody>
</table>

East Campus
Second Floor
E. West Academic Support Center - 2,220± GSF

KEY
1. Reception Desk
2. Work Station
3. New Doors
4. Wall Infill
5. Paint (throughout)
6. Carpet (throughout)
7. ACT Ceiling (Paint Existing Grid)
8. Lighting Upgrade
9. 48” Tall Partition
10. No Work

COSTS:
- Construction - $37,000 - $46,000
- Abatement - Allowance (By College)
- Furnishings - $16,000 - $20,000
- Technology - Allowance (By College)

West Campus
Second Floor
F. Locker Rooms

**KEY**

1. Remove Equipment From Stairway & Corridor For Code Compliance
2. No Work Scheduled
3. Provide Gate on Elec. Hold Open For Code Compliance
4. Remove Wall Between Storage Rooms
5. Infill Door
6. Convert to Training Room
7. Replace Shower Fittings, Clean Grout, Paint, New lights
8. Renovate Toilet Room / Reconfigure for ADA
9. Convert to Single Accessible Shower Stall
10. Replace Carpet w/ Vinyl Flooring
11. Paint
12. Replace Lighting
13. Convert Existing Toilet Rooms to Accessible Shower/Locker Facilities.
14. Reconfigure Entrance to Locker Room for ADA Compliance
15. Reconfigure Restroom to Make ADA Accessible
16. Gym
17. Unexcavated (Gym Above)

**COSTS:**

- Construction - $180,000 - $210,000
- Abatement - Allowance (By College)
- Furnishings - $0
- Technology - Allowance (By College)

---

A. MEN’S LOCKER ROOM
B. STORAGE
C. WOMEN’S LOCKER ROOM

---

West Campus

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Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
F. Locker Rooms  Continued...

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
G. Theater

KEY
1. Replace 330 Theater Seats
2. Replace Backstage Lighting
3. Add 15-20 Circuits to Existing
   140 Circuit Panel Board
4. Paint Theater House
5. Provide Caged Ladder & Lighting Platform
6. Provide Lighting Platform w/
   Access From Control Booth
7. Modify Entries to Theater to
   Provide ‘Light Locks’: Modify
   Seating at Back of House for
   Accessible Seating Area
8. Infill Existing Doors
9. Install Lighting Bars On
   New Walls

COSTS:
Construction - TBD
Abatement - Allowance (By College)
Furnishings - TBD
Technology - Allowance (By College)
H. Theater Lobby - 2,600± GSF

**KEY**
1. Porcelain Tile
2. Carpet
3. Wood Paneling
4. Suspended Sculpture
5. Paint
6. ACT Ceiling & Grid (50%)
7. Gypsum Board Ceiling (50%)
8. Lighting Upgrade

**COSTS:**
- Construction - $78,000 - $91,000
- Abatement - Allowance (By College)
- Furnishings - $24,000 - $32,000
- Technology - Allowance (By College)
HEAPR Projects

The following list of projects has been identified as the preliminary top HEAPR projects for Century College. These projects meet the standards set forth by the legislature as either preserving or protecting existing campus facilities and are one of the following types: code compliance, including health and safety; meeting the requirements of the Americans with Disabilities Act (ADA); abatement of hazardous materials; access improvement; air-quality improvement; building repairs necessary to preserve the interior and exterior of existing buildings; or renewal to support existing programmatic missions of the campus. Note: Costs are represented in 2012 dollars.

Reduce Asset Preservation Backlogs

The current and five-year Facility Condition Index values are .23 and .25 respectively.

- Current Replacement Value (CRV): $208,661,000
- Current Backlog: $48,437,000
- Current Facilities Condition Index (FCI): .23
- 5-year Backlog: $51,287,000
- 5-year Facility Condition Index (FCI): .25
### Top HEAPR Projects

The following have been identified as top priority projects for asset preservation funding:

<table>
<thead>
<tr>
<th></th>
<th>Project</th>
<th>Cost in $1,000s</th>
<th>FCI Decrease</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>W Chillers</td>
<td>1,056</td>
<td>.01</td>
<td>2014</td>
<td>Chilled water is presently supplied to West through pipes that run under the bridge from East. The piping is in poor shape, resulting in energy inefficiency, and there is no backup in case of failure of the pipes or chillers on East.</td>
</tr>
<tr>
<td>2</td>
<td>W Window &amp; Wall Repair</td>
<td>609</td>
<td>no significant change</td>
<td>2014</td>
<td>The west campus needs tuck-pointing and brick repair. The windows are very energy inefficient. They are single pane and leak when rain comes down at a certain angle. This project was funded with 2012 HEAPR dollars, but money had to be transferred from this project to fund the emergency boiler project on West.</td>
</tr>
<tr>
<td>3</td>
<td>E/W Replace Fire Pumps</td>
<td>200</td>
<td>no significant change</td>
<td>2014</td>
<td>Fire Pumps are over 40 years old. The east pump has been worked on several times over the years. The motor that is driving the pump is not the original and does not meet NFPA standards. The facility was without a fire suppression system for over three weeks recently as the pump needed to be sent out for repairs.</td>
</tr>
<tr>
<td>4</td>
<td>E Window &amp; Wall Repair</td>
<td>375</td>
<td>no significant change</td>
<td>2016</td>
<td>The rubber seals around the aluminum windows have failed leading to energy inefficiency and moisture problems.</td>
</tr>
<tr>
<td>5</td>
<td>E Asbestos Abatement</td>
<td>750</td>
<td>no significant change</td>
<td>2016</td>
<td>The main roof deck of the facility is coated with an Asbestos Insulation. There are numerous electrical code violations above the suspended ceiling due to the fact that wires cannot be run properly because of the Asbestos. Facilities staff may be subjected to harmful conditions when working on broken ceiling tiles or repairing light fixtures.</td>
</tr>
<tr>
<td>6</td>
<td>E/W Pipe Insulation/Replacement</td>
<td>250</td>
<td>no significant change</td>
<td>2016</td>
<td>Century College’s West Campus Heating and Cooling is fed from piping that originates from the East Side Boiler Room. The piping’s insulation is in very poor shape. There are areas where the metal pipe is totally exposed to the outside elements.</td>
</tr>
<tr>
<td>7</td>
<td>E/W Roof Replacement</td>
<td>4,443</td>
<td>.02</td>
<td>2018</td>
<td>This project has been identified in Inspec’s roofing evaluation program as needing replacement.</td>
</tr>
<tr>
<td>8</td>
<td>E/W Exterior Door Replacement</td>
<td>300</td>
<td>no significant change</td>
<td>2018</td>
<td>The outside doors of the College are rusted and damaged. Electronic Security devices have stopped working on some doors due to door and frame failure.</td>
</tr>
<tr>
<td>9</td>
<td>E/W HVAC Systems Replacement</td>
<td>11,700</td>
<td>.06</td>
<td>2018</td>
<td>A study completed by LKPB engineers determined that the HVAC system has exceeded its maximum life expectancy. The mechanical systems are very inefficient and costly to operate.</td>
</tr>
<tr>
<td>10</td>
<td>E/W Entry Repair</td>
<td>400</td>
<td>no significant change</td>
<td>2020</td>
<td>At main entrances of both campuses, replace the hollow metal doors, door frames, closers, ADA openers and related hardware.</td>
</tr>
</tbody>
</table>
Campus Initiative Projects

The following have been identified as top priority projects for campus initiative projects:

**East Campus**
- a. FAB Lab
- b. Solar Lab
- c. Classroom Renovation
Top Campus Initiative Projects

The following ranked projects are intended to respond to aging infrastructure, new teaching methodology, evolving instructional technologies, and changing market trends on a special small project basis. These initiatives are currently under consideration for funding from the legislature in the 2014 Capital Budget Request.

Priority One 2014 | FAB Lab (East)

Scope: This project will relocate, renovate, and enhance the Century College Digital Fab Lab on the College’s east campus to improve functioning of the space. Through this renovation, the lab’s flexibility, safety, and usability will be improved and expanded, allowing broader use of the lab across multiple disciplines within the College and with various College partners.
Projected costs: $847,200

Priority Two 2014 | Solar Lab (East)

Scope: The project will renovate 1200 square feet on the first floor of the east campus and provide Solar Thermal Energy collectors and Photovoltaic Solar Power arrays for use and study by the Solar Energy curriculum students at Century College.
Projected costs: $450,400

Priority Three 2014 | Classroom Renovation (East)

Scope A: Renovate 2500 square feet and renew 1700 square feet to include:
• 2 new technology enhanced classrooms for 56-64 students each.
• 3 revitalized classrooms with upgraded technology
• Replace oversized and inefficient HVAC systems, including a large exhaust hood that is no longer necessary
Projected costs: $847,000

Scope B: Renovate 2180 square feet to include:
• 2 new technology enhanced classrooms for 56-64 students each.
• Replace oversized and inefficient HVAC systems, including a large exhaust hood that is no longer necessary
Projected costs: $692,400
Capital Bonding Projects

The following projects will seek Capital Bonding and are listed in order of desired funding and completion.

Priority capital improvement projects achieved through General Obligation Bonds

1. Classroom Addition (West)
2. Applied Technology Center (East)
3. Learning Commons/Program Clusters (West)
4. Advanced Technology & Design Center (East)
5. Classroom Building (Variable locations as needed)

Priority capital improvement projects achieved through Revenue Bonds

A. Student Center
B. Parking Structure
C. Parking Structure
Top Campus Bonding Projects

The following list briefly summarizes the top capital improvement projects that would be funded through General Obligation bonds. They are listed according to institutional rank as determined by the Century Executive Cabinet. Note: Costs are expressed in 2012 dollars.

Priority One 2014 | Classroom Addition (West Campus)

Scope and Purpose: New facility and existing space renovation designed to meet critical need for classroom and flexible learning space designed to accommodate 21st Century teaching methods in learning labs that will prepare students for highly skilled jobs.
New construction: 25,584 SF
Renovation: 4,000 SF
Renewal: 1,000 SF
Sitework: not specified
Project costs: $14,432,000
Status: Pre-design completed

Priority Two 2016 | Applied Technology Center Renovation (East Campus)

Scope and Purpose: Renovate existing space and add mezzanine on Floor 2 to accommodate applied technology programs in clearly-identifiable cluster. Develop Math Learning Commons with faculty offices and study space. Enhance program visibility and collaboration across programs.
New construction: 16,000 SF (internal mezzanine)
Renovation: 11,000 SF
Sitework: 0
Project costs: $3,335,000
Status: Internal discussions

Priority Three 2022 | Learning Commons Spatial Program Alignment (West Campus)

Scope and Purpose: Renovate existing space to develop Learning Commons, grouping faculty offices, student study space, and classrooms by academic departments. Spatially align these departments in larger Program Clusters to increase collaboration among faculty and students across disciplines.
New construction: 0
Renovation: 27,000 SF
Sitework: 0
Project costs: $2,984,000
Status: Internal discussions

Priority Four 2028 | Advanced Technology & Design Center (East Campus)

Scope and Purpose: Develop new classrooms and labs designed for hands-on learning in the increasingly integrated and high-demand fields of technology and design.
New construction: 40,000 SF
Renovation: minimal
Sitework: 0
Project costs: $11,700,000
Status: Internal discussions

Priority Five 2032 | Classroom Addition (Variable Location)

Scope and Purpose: Add new classrooms and/or labs to accommodate program growth and increase in FTE.
Top Campus Revenue Bonded Projects

The following list briefly summarizes the top capital improvement projects that would be funded through Revenue bonds. They are listed according to institutional rank as determined by the Century Executive Cabinet in response to student demand.

Priority One 2014 | Student Center (West)

Scope and Purpose: Add and renovate space to accommodate a variety of places for student study, support services, recreation, and organizations.

\- **New construction:** 7,900 SF  
\- **Renovation:** 4,950 SF  
\- **Sitework:** TBD  
\- **Project costs:** $4,805,000  
\- **Status:** 50% Pre-Design submitted November, 2013.

Priority Two 2020 | Parking Ramp (East)

Scope and Purpose: Provide additional parking without developing more impervious area. No studies have identified a current need for more parking, but an increase in enrollment would lead to a need for more parking unless alternative transportation is developed.

\- **New construction:** 50,000 SF (assume 3 stories)  
\- **Renovation:** 0  
\- **Sitework:** TBD  
\- **Project costs:** $3,000,000  
\- **Status:** On hold until FYE increases, which may increase demand for parking.

Priority Three 2028 | Parking Ramp (West)

Scope and Purpose: Provide additional parking without developing more impervious area. No studies have identified a current need for more parking, but an increase in enrollment would lead to a need for more parking unless alternative transportation is developed.

\- **New construction:** 50,000 SF (assume 3 stories)  
\- **Renovation:** 0  
\- **Sitework:** TBD  
\- **Project costs:** $3,000,000  
\- **Status:** On hold until FYE increases, which may increase demand for parking.
Agenda

• Classroom/ Lab Utilization
• CFP Draft Goals
• CFP Project Overview
  • Grouping
  • Priority & Sequencing
  • Funding Source
• 2018 Predesign Review – Project Prioritization
  • Classroom Initiative
  • Medical Assisting
  • FACM/HVAC
  • Applied Technology Center
• Future CFP Project Details
  • Auto Programs
  • Nursing/ Lincoln Mall/ Accessible Entry
  • VCT/Fine and Performing Arts
Coding issues with labs?

WEST | FLOOR 3

WEST | FLOOR 2

WEST | FLOOR 1

EAST | FLOOR 3

EAST | FLOOR 2

EAST | FLOOR 1
Utilization by Capacity (based on 32 hours/week)
### Potential for Combination / Repurposing

<table>
<thead>
<tr>
<th>Capacity</th>
<th># of Rooms</th>
<th>Average Utilization (Hours)</th>
<th># of Rooms to reach 100% Utilization</th>
<th>Potential Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-25</td>
<td>2</td>
<td>46%</td>
<td>1</td>
<td>1 (-2+1)</td>
</tr>
<tr>
<td>26-30</td>
<td>8</td>
<td>47%</td>
<td>4</td>
<td>5 (-3)</td>
</tr>
<tr>
<td>31-35</td>
<td>4</td>
<td>54%</td>
<td>3</td>
<td>3 (-1)</td>
</tr>
<tr>
<td>36-40</td>
<td>19</td>
<td>68%</td>
<td>13</td>
<td>13 (-6)</td>
</tr>
<tr>
<td>41-45</td>
<td>3</td>
<td>53%</td>
<td>2</td>
<td>3 (-2 +1)</td>
</tr>
<tr>
<td>46-50</td>
<td>5</td>
<td>60%</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>51-60</td>
<td>5</td>
<td>63%</td>
<td>3</td>
<td>3 (-3 +1)</td>
</tr>
<tr>
<td>61-80</td>
<td>4</td>
<td>36%</td>
<td>2</td>
<td>3 (-2 +1)</td>
</tr>
<tr>
<td>81-125</td>
<td>2</td>
<td>83%</td>
<td>2</td>
<td>1 (-2 +1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td></td>
<td><strong>33</strong></td>
<td><strong>36 (-16)</strong></td>
</tr>
</tbody>
</table>
Comprehensive Plan Goals

- Improve classroom utilization
  - Right-size classrooms
  - Revitalize classrooms to support Active Learning
- Strengthen program/department identity
- Foster collaboration within and across departments
- Provide appropriate lab space for technical/career programs
- Increase quantity and quality of student study space
- Enhance campus image and aesthetics
- Support Facilities Advisory Committee objectives
FAC Ongoing Projects

1. Improve appearance of College Common Areas
2. Classrooms
3. Student Gathering Spaces
4. Restrooms (particularly all gender)

FAC Rankings

1. Commercial HVAC-R Lab
2. Remodel/Repair to Auto
3. Access Center
4. Theatre Renovations
5. Testing Center Office Redesign
6. Music Room Soundproofing
7. Greenhouse #1 Remodel
8. Bruening Room
9. Greenhouse Generator
10. Learning Commons
EAST CAMPUS
1a. Engineering and Applied Technology Center
1b. East ASC and Partnership
3. FST/ HVAC
4. Medical Assisting
5. Auto Programs
7. Nursing Classroom/ Sim/ Bruening Room/ Lincoln Mall/ Accessible Entry

WEST CAMPUS
2. Classroom Initiative
6. VCT/ Fine Arts Build Out/ Office Relocation/ Access Center/ Performing Arts/ Gallery
8. Placeholder – ESOL/TrIn?

KEY:
2017 & 2018 Requests
**EAST CAMPUS**
A. Parking Structure?

**WEST CAMPUS**
B. Parking Structure?
C. Student Center?
**EAST CAMPUS**
- b. CE/CT and 916 Swap
- c. Learning Commons
- d. Link 6 Enhancements
- f. Greenhouse

**WEST CAMPUS**
- a. Theater Safety/Aesthetics (remove?)
- e. Gym Renovation?
- g. Student Support Consolidation?
WEST | FLOOR 1

WEST | FLOOR 2

OPTION 1 (36+48)

OPTION 2 (84)

$1.62 million
WEST | FLOOR 1

OPTION 1 (132)

OPTION 2 (191)

OPTION 3 (128)

$1.62 million
WEST | FLOOR 1

OPTION 4 (136)  

OPTION 5 (70+86)  

OPTION 6 (72+80)  

$1.62 million
2018 PREDESIGN | HVAC/FST

EAST | FLOOR 1

- Classroom/Lab Reconfiguration (Kitchen/Bath, Interior Design)
- O+P
- Print Shop

EAST | FLOOR 2

HVAC/FST: Campus Funded

$7.46 million
Faculty Offices
916
Welding
Fab Lab 2

Computers
ECAD
East Academic Support Center
Science Resource Center?
Additive Digital Manufacturing
Partnership

EAST | FLOOR 1

EAST | FLOOR 2

$6.53 million
Remove welding from 2018 Predesign and insert first-floor Fab Lab?
Nursing/ Lincoln Mall/ Accessible Entry

Feasible to move ESOL/Trin?

EAST | FLOOR 1

- Nursing Room
- Auto Mechanics
- ESOL and Trin
- Commercial Vehicle Tech
- Information Technology Services
- Auto Body
- Welding
- Painting

Facilities
- Print Shop
- Lab

Student Lounge
- Class/ Lab

Main Entrance
- Quiet Study
- Hallway
- Open Study
- Class/Lab

CENTURY COLLEGE MASTER PLAN  LHB  COMPREHENSIVE FACILITY PLAN UPDATE | 10.5.16
Nursing/ Lincoln Mall/ Accessible Entry

Feasible to move ESOL/Trin?

EAST | FLOOR 2
EAST | FLOOR 3

Feasible to move ESOL/Trin?

Nursing/ Lincoln Mall/ Accessible Entry
VCT Relocation and Fine and Performing Arts Buildout

Convert Classroom Initiative spaces to Fine Arts classrooms and labs?
VCT Relocation and Fine and Performing Arts Buildout

WEST/ FLOOR 2

Records
Art Gallery
Performing Arts
Fine & Performing Arts

Health/P.E. (locker rooms)
Admin/Business/Finance
Counseling/Career
Admissions
Financial Aid
CLASSROOMS & LABS | EXISTING
THANK YOU
## Classroom Utilization

**Reporting Period:** 10/26/2015 thru 10/30/2015  (Based on 75 hours per week)  
**CFP #3A - Seat Fill-Classrooms**  
**DO NOT USE FOR ROOM UTILIZATION**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>Century West Campus(W)</td>
<td>W1001 Classroom</td>
<td>17</td>
<td>21.17</td>
<td>66.15%</td>
<td>42</td>
<td>36</td>
<td>60</td>
<td>60%</td>
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<tr>
<td></td>
<td>W1006 Classroom</td>
<td>29</td>
<td>31.75</td>
<td>99.22%</td>
<td>34</td>
<td>32</td>
<td>124</td>
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<td>W1140 Classroom</td>
<td>1</td>
<td>2.83</td>
<td>8.85%</td>
<td>40</td>
<td>41</td>
<td>60</td>
<td>68.33%</td>
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<tr>
<td></td>
<td>W1170 Classroom</td>
<td>18</td>
<td>21.33</td>
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<td>25</td>
<td>25</td>
<td>95</td>
<td>26.32%</td>
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<tr>
<td></td>
<td>W1180 Classroom</td>
<td>2</td>
<td>2.50</td>
<td>7.81%</td>
<td>50</td>
<td>42</td>
<td>64</td>
<td>65.63%</td>
</tr>
<tr>
<td></td>
<td>W1490 Regular Classroom</td>
<td>16</td>
<td>16.25</td>
<td>50.78%</td>
<td>32</td>
<td>31</td>
<td>40</td>
<td>77.5%</td>
</tr>
<tr>
<td></td>
<td>W2001 Classroom/Conference</td>
<td>14</td>
<td>14.17</td>
<td>44.27%</td>
<td>0</td>
<td>11</td>
<td>12</td>
<td>91.67%</td>
</tr>
<tr>
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<td>W2003 Classroom</td>
<td>14</td>
<td>21.33</td>
<td>66.67%</td>
<td>28</td>
<td>24</td>
<td>32</td>
<td>75%</td>
</tr>
<tr>
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<td>W2005 Classroom</td>
<td>10</td>
<td>15.67</td>
<td>48.96%</td>
<td>30</td>
<td>18</td>
<td>30</td>
<td>60%</td>
</tr>
<tr>
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<td>W2007 Classroom</td>
<td>29</td>
<td>38.33</td>
<td>119.79%</td>
<td>31</td>
<td>30</td>
<td>40</td>
<td>75%</td>
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<tr>
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<td>W2010 Classroom</td>
<td>13</td>
<td>16.50</td>
<td>51.56%</td>
<td>38</td>
<td>32</td>
<td>60</td>
<td>53.33%</td>
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<td>W2090 Classroom</td>
<td>24</td>
<td>31.00</td>
<td>96.87%</td>
<td>50</td>
<td>43</td>
<td>56</td>
<td>76.79%</td>
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<td>W2120 Classroom</td>
<td>24</td>
<td>27.83</td>
<td>86.98%</td>
<td>40</td>
<td>30</td>
<td>40</td>
<td>75%</td>
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<td>W2140 Classroom</td>
<td>31</td>
<td>32.83</td>
<td>102.6%</td>
<td>28</td>
<td>26</td>
<td>40</td>
<td>65%</td>
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<tr>
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<td>W2160 Classroom</td>
<td>25</td>
<td>24.17</td>
<td>75.52%</td>
<td>27</td>
<td>27</td>
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<td>W2180 Classroom</td>
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<td>27.00</td>
<td>84.37%</td>
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<td>27</td>
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<td>67.5%</td>
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<td>W2190 English Classroom</td>
<td>21</td>
<td>29.83</td>
<td>93.23%</td>
<td>25</td>
<td>26</td>
<td>30</td>
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<tr>
<td></td>
<td>W2270 Student Services</td>
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<td>0.00</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>27</td>
<td>0%</td>
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<tr>
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<td>W2490 Classroom</td>
<td>10</td>
<td>14.17</td>
<td>44.27%</td>
<td>48</td>
<td>36</td>
<td>76</td>
<td>47.37%</td>
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<tr>
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<td>W2510 Classroom</td>
<td>17</td>
<td>16.67</td>
<td>52.08%</td>
<td>23</td>
<td>24</td>
<td>40</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>W2520 Classroom</td>
<td>5</td>
<td>5.83</td>
<td>18.23%</td>
<td>23</td>
<td>17</td>
<td>40</td>
<td>42.5%</td>
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<tr>
<td></td>
<td>W3040 Classroom</td>
<td>23</td>
<td>20.92</td>
<td>65.36%</td>
<td>32</td>
<td>29</td>
<td>40</td>
<td>72.5%</td>
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<td>W3090 Classroom</td>
<td>16</td>
<td>20.33</td>
<td>63.54%</td>
<td>34</td>
<td>32</td>
<td>40</td>
<td>80%</td>
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<tr>
<td></td>
<td>W3130 Computer Class Room</td>
<td>13</td>
<td>12.83</td>
<td>40.1%</td>
<td>29</td>
<td>27</td>
<td>30</td>
<td>90%</td>
</tr>
<tr>
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<td>W3140 Computer Class Room</td>
<td>10</td>
<td>9.17</td>
<td>28.65%</td>
<td>0</td>
<td>22</td>
<td>30</td>
<td>73.33%</td>
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<tr>
<td></td>
<td>W3150 Classroom</td>
<td>23</td>
<td>23.33</td>
<td>72.92%</td>
<td>33</td>
<td>33</td>
<td>40</td>
<td>82.5%</td>
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<tr>
<td></td>
<td>W3160 Classroom</td>
<td>20</td>
<td>29.00</td>
<td>90.62%</td>
<td>35</td>
<td>33</td>
<td>40</td>
<td>82.5%</td>
</tr>
<tr>
<td></td>
<td>W3180 Classroom</td>
<td>25</td>
<td>23.50</td>
<td>73.44%</td>
<td>35</td>
<td>32</td>
<td>40</td>
<td>80%</td>
</tr>
</tbody>
</table>

MnSCU - MN State Colleges and Universities

2/22/2016 11:57 AM TA
BACKLOG & 10 YR RENEWAL BY SUBSYSTEM
Campus

Building Name

Bldg No

Century College

Addition Bldg F

154C0790

CRV(000's
)
$4,406

Century College

Addition Bldg F

154C0790

Century College

Addition Bldg F

Century College

Addition Bldg F

Century College

Page 1 of 1
GSF
13,224

Year
Built
1990

FCI
0.19

$4,406

13,224

1990

0.19

154C0790

$4,406

13,224

1990

0.19

154C0790

$4,406

13,224

1990

0.19

Addition Bldg J

154C0890

$3,715

11,150

1990

0.20

Century College

Addition Bldg J

154C0890

$3,715

11,150

1990

Century College

Addition Bldg J

154C0890

$3,715

11,150

1990

Century College

Addition Bldg J

154C0890

$3,715

11,150

Century College

Addition Bldg J

154C0890

$3,715

Century College

Addition Bldg J

154C0890

Century College

Addition Bldg J

154C0890

Century College

Addition Bldg K

Century College

Subsystem Name
a.5. Roofing - Builit-up,
Membrane, Cedar
b.1. Building Exteriors
(Hard)
l.2. Interior Finishes

Backlog

2017

2018

2019

2020

2021

2022

2023

2024

2025

2026

Total

$720

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$720

$123

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$123

$0

$0

$0

$0

$0

$0

$0

$0

$0

$169

$0

$169

$843

$0

$0

$0

$0

$0

$0

$0

$0

$169

$0

$1,012

$104

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$104

0.20

b.1. Building Exteriors
(Hard)
d.2. HVAC - Controls

$82

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$82

0.20

d.1. HVAC - Equipment

$138

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$138

1990

0.20

e.1. HVAC - Distribution

$294

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$294

11,150

1990

0.20

f.1. Electrical Equipment

$0

$0

$0

$0

$186

$0

$0

$0

$0

$0

$0

$186

$3,715

11,150

1990

0.20

l.2. Interior Finishes

$143

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$143

$3,715

11,150

1990

0.20

$760

$0

$0

$0

$186

$0

$0

$0

$0

$0

$0

$946

154C0690

$831

2,494

1990

0.46

$210

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$210

Addition Bldg K

154C0690

$831

2,494

1990

0.46

$23

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$23

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

a.5. Roofing - Builit-up,
Membrane, Cedar
b.1. Building Exteriors
(Hard)
d.2. HVAC - Controls

$18

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$18

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

d.1. HVAC - Equipment

$31

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$31

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

e.1. HVAC - Distribution

$66

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$66

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

f.1. Electrical Equipment

$0

$0

$0

$0

$42

$0

$0

$0

$0

$0

$0

$42

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

g.1. Plumbing Fixtures

$0

$0

$0

$0

$11

$0

$0

$0

$0

$0

$0

$11

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

k.1. Built-in Equipment

$0

$0

$0

$0

$18

$0

$0

$0

$0

$0

$0

$18

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

l.2. Interior Finishes

$32

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$32

Century College

Addition Bldg K

154C0690

$831

2,494

1990

0.46

$380

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$0

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$71

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$0

$0

$0

$0

$451

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

$14

$0

$0

$0

$0

$0

$0

$0

$0

$0

$0

$14

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

b.1. Building Exteriors
(Hard)
d.2. HVAC - Controls

$0

$0

$0

$0

$0

$9

$0

$0

$0

$0

$0

$9

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

d.1. HVAC - Equipment

$9

$0

$0

$0

$0

$0

$0

$0

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$0

$0

$9

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

e.1. HVAC - Distribution

$0

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$0

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$0

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$0

$14

$14

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

f.1. Electrical Equipment

$9

$0

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$0

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$9

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

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$4

Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

i.1. Fire Protection
Systems
l.2. Interior Finishes

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$0

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Century College

Auto Part Add.

210T0676

$374

3,016

1976

0.09

TOTAL BY BUILDING

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Century College

Cold Storage 1

210T1002

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2002

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Century College

Cold Storage 1

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$60

Century College

Cold Storage 1

210T1002

$595

4,800

2002

0.00

a.3. Roofing - Metal,
Concrete
b.2. Building Exteriors
(Soft)
f.1. Electrical Equipment

$0

$0

$0

$0

$0

$0

$15

$0

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$0

$15

Century College

Cold Storage 1

210T1002

$595

4,800

2002

0.00

TOTAL BY BUILDING

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$0

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$143

Century College

Cold Storage 2

210T0474

$413

2,976

1974

0.00

$0

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Century College

Cold Storage 2

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Century College

Cold Storage 2

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1974

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Century College

Cold Storage 2

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$0

$0

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$160

Source: Approved Data SubUsage:

TOTAL BY BUILDING

TOTAL BY BUILDING

TOTAL BY BUILDING

a.3. Roofing - Metal,
Concrete
b.2. Building Exteriors
(Soft)
l.2. Interior Finishes
TOTAL BY BUILDING

Tuesday, July 05, 2016 11:16 AM
5.5.1


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<th>Age</th>
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<th>Exterior</th>
<th>HVAC</th>
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<th>Electrical</th>
<th>Plumbing</th>
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<th>Detection</th>
<th>Built-in</th>
<th>Interior Finishes</th>
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<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$7</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$4</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$4</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$2</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$6</td>
<td>$21</td>
<td>$0</td>
<td>$7</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Century College</td>
<td>Warehouse Add. 210T0884</td>
<td>$298</td>
<td>2,400</td>
<td>1984</td>
<td>0.02</td>
<td>$6</td>
<td>$21</td>
<td>$0</td>
<td>$7</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

TOTAL BY CAMPUS | $39,561 | $8,037 | $2,369 | $566 | $6,977 | $309 | $2,467 | $1,049 | $1,524 | $304 | $64,391
Demographics

Surrounding Area

By 2040, the population of the 7-county metro region is projected to grow by 31%, becoming more diverse and increasingly aged. Ramsey County will see a smaller population increase of 26%, with an increase in Washington County of 30%. While the population of those over 65 is expected to more than double, the number of residents under age 25 will also increase by 26%, bolstering college enrollment potential in the long run. Diversity will increase primarily because of birth and immigration in these younger age groups, moving from 24% people of color in 2010 to 43% people of color in 2040. (Metropolitan Council Forecast, April 2012 and September 2013)

Century enrollment is expected to generally mirror the overall State demographic trends, which means flat or slight declines in the near future and slight growth in the medium term. They are currently developing a predictive enrollment model to get a better understanding of the general trends, as well as the elements that have the greatest impact on enrollment.

Century is planning to expand program offerings in high demand areas, including STEM, healthcare and information technology programs to offset some of the decline in the demographics. They are more tightly aligning the work of CECT areas with the academic programs as a way to improve program development in emerging fields. They are also expanding marketing efforts in these areas to improve outreach, especially in under-represented populations.

Enrollment

From Student Snapshot report Fall 2013
Total students served: 9,969

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>full time students</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>part time students</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female students</td>
<td>55.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male students</td>
<td>44.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students of color</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>international</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>caucasian</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unknown</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students younger than 25</td>
<td>58%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students 25 to 49</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Minnesota High School Graduate Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Students of Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Portions of the previous Facilities Master Plan by DLR Group have been incorporated into this document.
Century College is not targeting PSEO students as a critical piece of the enrollment strategy.

### Online Students

<table>
<thead>
<tr>
<th>Term</th>
<th>Courses</th>
<th>Course Sections</th>
<th>Headcount</th>
<th>Online FYE</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2008</td>
<td>128</td>
<td>160</td>
<td>2,335</td>
<td>405</td>
<td>6%</td>
</tr>
<tr>
<td>FY 2009</td>
<td>166</td>
<td>212</td>
<td>3,098</td>
<td>580</td>
<td>9%</td>
</tr>
<tr>
<td>FY 2010</td>
<td>218</td>
<td>258</td>
<td>3,950</td>
<td>779</td>
<td>10%</td>
</tr>
<tr>
<td>FY 2011</td>
<td>251</td>
<td>315</td>
<td>4,661</td>
<td>967</td>
<td>12%</td>
</tr>
<tr>
<td>FY 2012</td>
<td>264</td>
<td>334</td>
<td>4,655</td>
<td>985</td>
<td>13%</td>
</tr>
<tr>
<td>FY 2013</td>
<td>292</td>
<td>380</td>
<td>4,828</td>
<td>1,039</td>
<td>14%</td>
</tr>
<tr>
<td>Projected</td>
<td>average growth 4.5% per year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fiscal Year

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>357</td>
<td>374</td>
<td>398</td>
<td>387</td>
<td>383</td>
</tr>
<tr>
<td>Staff</td>
<td>216</td>
<td>225</td>
<td>231</td>
<td>235</td>
<td>213</td>
</tr>
<tr>
<td>Supervisors &amp; Admin</td>
<td>39</td>
<td>38</td>
<td>41</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>612</td>
<td>637</td>
<td>670</td>
<td>663</td>
<td>638</td>
</tr>
</tbody>
</table>
DIAGRAM #3
FIRST FLOOR (1968 Area) - ACM LOCATIONS

LEGEND
- ACM FLOOR TILE & ADHESIVE UNDER CARPET
- RESIDUAL ACM ADHESIVE UNDER CARPET
- ACM FLOOR TILE ADHESIVE (NON-ACM FLOOR TILE)
- ACM FLOOR TILE & ADHESIVE
ACM BLACK SEAM SEALANT ON ALL AHUs IN AREA
ALL MUDDED PIPE FITTINGS IN THIS AREA ARE ACM
RESIDUAL FIREPROOFING THOUGHOUT AREA IS ACM
DIAGRAM #15
SECOND FLOOR (1969 Area) - ACM LOCATIONS

KOWN ACM FIRE DOOR

KOWN ACM FIRE DOOR

2 950

2 602

2 535

2 534

2 2570

STAIR 3

2 527

2 2533

2 2526

2 524

2 2561

2 53

2 560

2 603

2 523

LEGEND

- ACM TEXTURED CEILING SPRAY
- ACM FLOOR TILE & ADHESIVE
- ACM FLOOR TILE & ADHESIVE UNDER CARPET
MUDDED PIPE FITTING INSULATION LOCATED THROUGHOUT AREA IS ACM
NOTE: AREA WAS ABATED IN 2009. HOWEVER, RESIDUAL ACM FIREPROOFING IS STILL PRESENT IN SELECT CEILING AREAS.

NOTE: ACM PIPE FITTING INSULATION MAY BE PRESENT IN ROOMS 3145, 3150, 3160, 3170 & 3180 AS ROOMS WERE NOT PART OF THE 2009 ABATEMENT PROJECT.
SPECIFICATION GUIDELINE

DOORS, FRAMES and HARDWARE

Edit Date: July 28, 2005

Century College
A Community and Technical College

Century College, 3300 Century Avenue North, White Bear Lake, Minnesota 55110

CENTURY COLLEGE
Century College, 3300 Century Avenue North
White Bear Lake, Minnesota 55110
DOOR HARDWARE

SPECIFICATION GUIDELINE

SECTION 08710

The purpose of this booklet is to support the owner’s standardization of door hardware. The owner maintains the following hardware and is currently stocking replacement parts. The products listed in this booklet are to be used without substitution on new construction and modernization projects unless products are listed in this package as an alternate.

It is the intent of this booklet to provide guidelines for the architect’s specification section 08710, for product groups and the hardware schedule. It remains the architect’s responsibility to coordinate these products to meet the applicable building codes, life safety codes, and ADA requirements.
The door hardware section 08710 preamble must include the following:

Preinstallation Seminar

Before hardware installation, general contractor/construction manager shall coordinate a hardware installation seminar with a one week notice to all parties involved. The seminar is to be conducted on the installation of hardware, specifically of locksets, closers, exit devices, continuous hinges and overhead stops. Manufacturer's representative of the above products to present seminar. Seminar to be held at the job site and attended by installers of hardware (including low voltage hardware) for aluminum, hollow metal and wood doors. Training to include use of installation manuals, hardware schedule, templates and physical products samples. All material Suppliers shall supply maintenance manuals and parts lists for their respective items at the conclusion of the project(s).

Post Installation Walk Through

The hardware supplier and manufactures representative (locksets, closers, exit devices, and overhead stops) shall visit the project after all the hardware has been installed and shall notify the Architect if there is any hardware that has not been installed correctly. The Contractor and hardware supplier shall furnish the Architect with written certification to this effect. After the hardware is installed, the hardware supplier and manufacturers representative shall meet with the Owner to explain the functions, uses and maintenance of all types of hardware installed.
SPECIFICATION GUIDELINE
SECTION 08710 - DOOR HARDWARE

Substitutions or Alternates not permitted unless noted below

1) Hinges
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Hager</th>
<th>Ives</th>
<th>McKinney</th>
</tr>
</thead>
<tbody>
<tr>
<td>1279</td>
<td>5PB1</td>
<td>T2714</td>
</tr>
<tr>
<td>BB1279</td>
<td>5BB1</td>
<td>TB2714</td>
</tr>
<tr>
<td>BB1191</td>
<td>5BB1 630</td>
<td>TB2314</td>
</tr>
<tr>
<td>BB1168</td>
<td>5BB1HW</td>
<td>T483786</td>
</tr>
<tr>
<td>BB1199</td>
<td>5BB1HW 630</td>
<td>T483386</td>
</tr>
</tbody>
</table>

2) Continuous Hinges
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Markar</th>
<th>Hager</th>
<th>Stanley</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM300</td>
<td>790-900</td>
<td>651</td>
</tr>
<tr>
<td>HG305</td>
<td>790-905</td>
<td>652</td>
</tr>
</tbody>
</table>

Note: All Exterior doors to be full mortise.
All Cross-corridor, High Abuse, or any Interior door
over 36 inches in width.

3) Flush Bolts
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Ives</th>
<th>Door Control Int. Hager</th>
</tr>
</thead>
<tbody>
<tr>
<td>458</td>
<td>780 282D</td>
</tr>
<tr>
<td>31P</td>
<td>842 292D</td>
</tr>
<tr>
<td>41P</td>
<td>942 291D</td>
</tr>
<tr>
<td>51P</td>
<td>845 293D</td>
</tr>
<tr>
<td>61P</td>
<td>945 294D</td>
</tr>
<tr>
<td>DP-2</td>
<td>80 280X</td>
</tr>
</tbody>
</table>

4) Exit Devices
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Von Duprin</th>
<th>NO SUBSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 99 Series</td>
<td></td>
</tr>
<tr>
<td>2) Provide Rim type devices whenever possible.</td>
<td></td>
</tr>
<tr>
<td>3) 996L-06 Lever trim design for interior applications.</td>
<td></td>
</tr>
<tr>
<td>4) Provide Ives VR900 Series pulls on exterior door applications</td>
<td></td>
</tr>
<tr>
<td>5) LBR (Less Bottom Rod on vertical rod applications where security concerns are low)</td>
<td></td>
</tr>
<tr>
<td>6) 9547 Impact device at all cross-corridor doors utilizing metal doors</td>
<td></td>
</tr>
<tr>
<td>7) Provide parts box # 050046-00 per project</td>
<td></td>
</tr>
<tr>
<td>8) Delay Egress System to Include:</td>
<td></td>
</tr>
<tr>
<td>CX99 Series Exit Device</td>
<td></td>
</tr>
<tr>
<td>EPT10 Power Transfer</td>
<td></td>
</tr>
<tr>
<td>PS873FA Power Supply</td>
<td></td>
</tr>
<tr>
<td>Locknetics 653-05-L1 Key Switch</td>
<td></td>
</tr>
</tbody>
</table>
5) **Key Removable Mullions**

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Von Duprin</td>
<td>NO SUBSTITUTION</td>
</tr>
<tr>
<td></td>
<td>1) KR4954</td>
</tr>
<tr>
<td></td>
<td>2) KR9954</td>
</tr>
</tbody>
</table>

6) **Locks and Latches**

Acceptable manufacturers and respective catalog numbers:

All locks to accept small format interchangeable cores (SFIC).

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schlage</td>
<td>NO SUBSTITUTION</td>
</tr>
<tr>
<td>L9000 17A</td>
<td></td>
</tr>
<tr>
<td>ND VandiGard Sparta</td>
<td></td>
</tr>
</tbody>
</table>

Note: All classrooms to use “Classroom Security Lock” function.

Cabinet Locks:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falcon</td>
<td>NO SUBSTITUTION</td>
</tr>
<tr>
<td>C979 Rim Lock ¾” Throw</td>
<td></td>
</tr>
</tbody>
</table>

Padlocks:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kryptonite</td>
<td>NO SUBSTITUTION</td>
</tr>
<tr>
<td>KS41F1200 3/8” x 2” Shackle</td>
<td></td>
</tr>
<tr>
<td>KS41G1200 3/8” x 4” Shackle</td>
<td></td>
</tr>
</tbody>
</table>

7) **Keying**

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schlage</td>
<td>NO SUBSTITUTION</td>
</tr>
</tbody>
</table>

All new building construction to be keyed to the Schlage Everest “B” masterkey system. Provide key schematic and bitting list to owner for all new work areas.

Construction Cores-All exterior locks to be supplied with brass construction cores. Contractor to supply 10% additional cores to secure certain interior access doors. Construction cores shall be returned to the distributor once permanent cores are installed by the owner or owners representative.

8) **Pulls, Push Plates, Push Bars**

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Series Type</th>
<th>Burns</th>
<th>Hager</th>
<th>Ives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry 1” dia. Straight pull</td>
<td>1) 26C</td>
<td>4J</td>
<td>8103EZ</td>
</tr>
<tr>
<td>Entry 1” dia. Push &amp; Pull</td>
<td>2) 422 X 26C</td>
<td>153</td>
<td>9103EZ</td>
</tr>
<tr>
<td>Entry 1” dia. Push Bar</td>
<td>3) 422</td>
<td>130S</td>
<td>9100</td>
</tr>
<tr>
<td>Push/Pull Plate</td>
<td>4) 54</td>
<td>30S 4 x 16</td>
<td>8200 14 x 16</td>
</tr>
<tr>
<td>¾” Pull</td>
<td>5) 25B</td>
<td>3G</td>
<td>8102-8</td>
</tr>
</tbody>
</table>

Note: 1” dia. Push bars to be back to back and/or thru bolt mounted with finish buttons. ¾” and 1” Pulls to be thru bolt mounted with pin torx security head screws. Conceal screw heads under Push Plates.

Note: Provide Ives VR900 Series pulls on exterior door applications.
9) Coordinators  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Door Controls</th>
<th>Rockwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) COR</td>
<td>600</td>
<td>1600 Series</td>
</tr>
</tbody>
</table>

10) Closers  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>NO SUBSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCN</td>
<td></td>
</tr>
<tr>
<td>1) 4041</td>
<td></td>
</tr>
<tr>
<td>2) P4041EDA</td>
<td></td>
</tr>
<tr>
<td>1) 4040SE</td>
<td></td>
</tr>
</tbody>
</table>

11) Low Energy Automatic Operators  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>NO SUBSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCN</td>
<td></td>
</tr>
<tr>
<td>1) 4600 Series Operator</td>
<td></td>
</tr>
<tr>
<td>2) 956 Actuators with 972-4 escutcheon</td>
<td></td>
</tr>
<tr>
<td>3) 967 RF Actuator with 9301-2 RF Receiver</td>
<td></td>
</tr>
</tbody>
</table>

12) Kick Plates, Armor Plates and Mop Plates  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Rockwood</th>
<th>Burns</th>
<th>Hager</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. B. Ives</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. All kick plates shall be 10" high and 2" LDW (less door width).
B. All mop plates shall be 4" high and 2" LDW (less door width).
C. Thickness to be (16 gauge) 0.050 inch.
D. Plates shall have countersunk holes and beveled (all four) edges.

13) Overhead Stops  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Rixson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glynn Johnson</td>
<td></td>
</tr>
<tr>
<td>1) 90 Series</td>
<td>9 Series</td>
</tr>
<tr>
<td>2) 100 Series</td>
<td>1 Series</td>
</tr>
<tr>
<td>3) 450 Series</td>
<td>10 Series</td>
</tr>
</tbody>
</table>

14) Wall Stops, Holders  
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Rockwood</th>
<th>Trimco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) 407CCV</td>
<td>409</td>
<td>1270</td>
</tr>
<tr>
<td>2) WS11X</td>
<td>475</td>
<td>1205ES</td>
</tr>
<tr>
<td>3) WS40</td>
<td>477</td>
<td>1236ES</td>
</tr>
</tbody>
</table>
15) **Magnetic Hold Opens**
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>LCN</th>
<th>Dor-O-Matic</th>
<th>ABH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>SEM 7850</td>
<td>62110</td>
<td>2110/2120</td>
</tr>
<tr>
<td>2)</td>
<td>SEM 7830</td>
<td>62120</td>
<td>2510</td>
</tr>
<tr>
<td>3)</td>
<td>4040SE Sentronic</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>4)</td>
<td>24VDC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Magnetic holder’s housing & armature shall be constructed of a die cast zinc material.

16) **Weatherstrip, Threshold, Gasketing**
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>National Guard</th>
<th>Reese</th>
<th>Pemko</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thresholds</td>
<td>1) 425E</td>
<td>S205A</td>
<td>171A</td>
</tr>
<tr>
<td>Weatherstrip</td>
<td>2) 700NA</td>
<td>755A</td>
<td>2891APK</td>
</tr>
<tr>
<td>Gasketing</td>
<td>3) 2525</td>
<td>797B</td>
<td>S88D</td>
</tr>
<tr>
<td>Drip Strip</td>
<td>4) 16</td>
<td>R201</td>
<td>346</td>
</tr>
<tr>
<td>Sweeps</td>
<td>5) B606</td>
<td>964</td>
<td>18061CP</td>
</tr>
<tr>
<td>Astragal</td>
<td>6) 125N</td>
<td>92C</td>
<td>305CN</td>
</tr>
<tr>
<td>Smoke Seal</td>
<td>7) 5050</td>
<td>797</td>
<td>S88</td>
</tr>
</tbody>
</table>

Note:
1) Furnish head/jamb gaskets and edge stile astragals for pairs, for all “S” rated doors whether listed in hardware groups or not. Provide material based on passing UL 10C, UBC test standard 7-2.

2) Coordinate with door manufacturer the intumescent fire and smoke material for fire rated openings as required by door and frame manufacturer to comply with UL 10C, UBC test 7-2.

17) **Key Cabinets**
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Lund</th>
<th>Key Control</th>
<th>Telkee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>1200-1205AA</td>
<td>M228-2480</td>
<td>RWC-AWC</td>
</tr>
</tbody>
</table>

Furnish one model 1200 or 1205AA key cabinet with a capacity 1.5 times the number of key sets.

18) **Magnetic Lock**
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Locknetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>390+ Series 24VDC</td>
</tr>
</tbody>
</table>

19) **Electric Strikes**
Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th></th>
<th>Von Duprin</th>
<th>Folger Adams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>6000 Series</td>
<td>300 Series</td>
</tr>
</tbody>
</table>
20) Off-line Stand Alone Access Control Locks (Manually Programmed)

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Schlage</th>
<th>Von Duprin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pro 5100 Series Cylindrical Lock</td>
<td>Pro 993 Exit Trim</td>
</tr>
<tr>
<td>2) Pro 5500 Series Mortise Lock</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
</tr>
</tbody>
</table>

21) Off-line Access Control Locks (Manually programmed or Computer Managed)

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Schlage</th>
<th>Von Duprin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) CM 5100 Series Cylindrical Lock</td>
<td>CM 993 Exit Trim</td>
</tr>
<tr>
<td>2) CM 5500 Series Mortise Lock</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Locks shall be capable of manual programming up to 1000 users by means of keypad programming on face of lockset.
2. Locks shall be capable of expanding programming capabilities from manual keypad programming to computer programming.
3. Access control software used to computer program locks shall be capable of upgrading to manage on-line networked doors.
4. Access control software shall provide an unlimited number of Users.

22) On-line Network Access Control Locks (Computer Managed)

Acceptable manufacturers and respective catalog numbers:

<table>
<thead>
<tr>
<th>Schlage On-line</th>
<th>Von Duprin On-line</th>
<th>RSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) VIP 5100 Series Cylindrical Lock</td>
<td>VIP 993 Exit Trim</td>
<td></td>
</tr>
<tr>
<td>2) VIP 5500 Series Mortise Lock</td>
<td>WA 993 Exit Trim</td>
<td></td>
</tr>
<tr>
<td>3) WA 5200 Series Cylindrical Lock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) WA 5500 Series Mortise Lock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>Handkey II Biometrics</td>
<td></td>
</tr>
<tr>
<td>6)</td>
<td>Fingerkey Biometrics</td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23) **Access Control Software Packages**

Acceptable manufacturers and respective catalog numbers:

1) Schlage **EXPRESS** – Used for managing small to medium Computer Managed (CM) offline lock sites. *This software package manages all stand alone off-line doors.*

2) Schlage **SELECT** – Management system for managing large CM and off-line lock sites or managing any Campus Locks (CL)s. Includes integrated badging applications. *This software package manages all stand alone off-line doors.*

3) Schlage **PROFESSIONAL** – Includes on-line transaction monitoring, badging history archiving, manual and automatic overrides, and management of on-line networked doors. *This software package manages all stand alone off-line doors and networked on-line doors.*

4) Schlage **ELITE** – Includes Visitor management, alarm monitoring, administrator audit trails, on-line transaction monitoring, history archiving, manual and automatic overrides, advanced reporting, badging and management. *This software package manages all stand alone off-line doors and networked on-line doors.*

Notes:

1. Software shall operate in Windows NT,2000,XP and 2003 Server Environments
2. Networked On-line access control software shall be capable of supporting any one or any combination of the following credential technologies: proximity, magnetic card stripe, keypad, biometrics, Wyreless products.
3. Stand Alone Off-line access control software shall be capable of supporting any one or any combination of the following credential technologies: proximity, magnetic card stripe, keypad.
4. Software shall provide time management control for both on-line and offline systems including automatic locking and unlocking, holiday controls, and time zones.
5. Access Control software packages for standalone off-line doors shall be upgradable to manage online doors as the facility’s security needs expand.
6. Software package shall be installed by a “certified dealer” who will provide training and support on the software program during initiation, installation, setup of database and use of software by the facility.
7. Certified Distributor shall provide minimum of 16 hours training to the facility.
8. Certified Distributor must include latest software version.
FINISHES AND BASE MATERIALS

A. Except where indicated otherwise, hardware finishes shall be applied over base metals as specified in the finish schedule that follows.

B. Finish Schedule:

<table>
<thead>
<tr>
<th>HARDWARE ITEM</th>
<th>FINISH AND BASE MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Butt Hinges</td>
<td>US32D (BHMA 630)</td>
</tr>
<tr>
<td>Exterior</td>
<td>US26D (526 or 652)</td>
</tr>
<tr>
<td>Interior</td>
<td></td>
</tr>
<tr>
<td>2. Continuous Hinges</td>
<td>US32D</td>
</tr>
<tr>
<td>3. Flush Bolts</td>
<td>US26D</td>
</tr>
<tr>
<td>4. Exit Devices</td>
<td>US26D with US32D touchpad</td>
</tr>
<tr>
<td>5. Locks and Latches</td>
<td>US26D</td>
</tr>
<tr>
<td>6. Pulls and Push Plates/Bars</td>
<td>US32D</td>
</tr>
<tr>
<td>7. Coordinators</td>
<td>Prime painted or mill alum.</td>
</tr>
<tr>
<td>8. Closers</td>
<td>Powder coat aluminum</td>
</tr>
<tr>
<td>9. Protective Plates</td>
<td>US32D</td>
</tr>
<tr>
<td>10. Overhead Stops</td>
<td>US32D</td>
</tr>
<tr>
<td>11. Wall Stops and Holders</td>
<td>US26D or US32D</td>
</tr>
<tr>
<td>12. Thresholds</td>
<td>Mill Aluminum</td>
</tr>
<tr>
<td>13. Weather-strip, Sweeps Drip Caps</td>
<td>Aluminum Anodized</td>
</tr>
<tr>
<td>14. Magnetic Holders</td>
<td>US2CD (603)</td>
</tr>
<tr>
<td>15. Magnetic Lock</td>
<td>US28 (628)</td>
</tr>
<tr>
<td>16. Miscellaneous</td>
<td>US26D on brass or bronze</td>
</tr>
</tbody>
</table>
SECTION 08110 - Hollow Metal Doors and Frames

Substitutions or Alternates not permitted unless noted below

Acceptable manufacturers:
Steelcraft Mfg.; Cincinnati, OH
Curries Co.; Mason City, IA
Ceco Door Products; Brentwood, TN

Materials:
1) Door, frames and components shall be manufactured from cold-rolled steel conforming to ASTM specification A366.
2) Hot dipped galvanized steel having an A60 zinc coating conforming to ASTM specification A924. Galvanized steel shall be treated to insure proper paint adhesion. All component parts used in galvanized doors and/or frames shall meet the galvanized specification.
3) Stainless steel shall be fabricated from type 304 or 316 stainless steel polished to a number 4 matte finish.

Doors:
1) To be full-flush seamless construction 1-3/4" thick doors beveled 1/8" in 2" at hinge and lock edges
2) Top and bottom steel reinforcement channels shall be closed with either flush or inverted 18 gage minimum end closures or channels
3) Hinge reinforcement shall be a minimum 7 gage.
4) Auxiliary hinge reinforcement shall be used at all top hinge locations. The reinforcement shall be 10 gage and welded to the standard reinforcement after it has been projection welded to the door.
5) Lock reinforcement shall be a minimum 16 gage. Closer reinforcement shall be a minimum 14 gage with minimum width of 20".
6) Edge construction to be a continuous vertical mechanical interlocking seam on both edges with structural epoxy applied to internal connection and/or a full height 16/14 gage channel continuously welded to face panels on beveled edges.
9) One coat of baked-on prime paint in accordance with ANSI A221.1.
10) All exterior outswinging doors shall have the tops closed flush to eliminate moisture penetration.
11) Reinforce and stiffen with impregnated honeycomb, polystyrene core completely filling the inside of the door and laminated to the inside faces OR steel stiffen with hat-shaped sections fabricated from a minimum 20 gage steel, and welded to the inside of the face sheets 6" on center. Steel stiffeners shall be filled with mineral wool.
12) Prepare all exterior doors for wire chase, EPT power transfer hinge and filler plate.
13) **Gravitech stainable steel doors** shall be 20 (0.8mm), 18 (1mm) and 16 gage (1.3mm) hot dipped galvannealed steel. Doors are manufactured with a minimum .005" deep steel embossed edge and face grain texture in a vertical wood grain pattern extending the full height and width of the door. An applied grain pattern will not be accepted. Doors shall be cleaned, phosphatized and prime painted with a stain absorbing primer. The doors shall be factory stained to simulate a wood door. Finished doors shall be protected with a clear top coat incorporating UV inhibitors.

Glass trim for doors with cutouts: Steelcraft Dezigner Trim 24 gauge (.6mm) steel conforming to {ASTM} designation A 924 hot dipped galvannealed steel with a zinc coating of 0.06 ounces per square foot [18g per square meter] (A60). Install the trim into the door as a four sided welded assembly. Provide the same trim on both sides of the door. Exposed fasteners are not permitted. Provide matching trim for labeled and non labeled doors.

**Gravitech Temperature Rise doors:** Full-flush construction, fabricated from A60 hot-dipped galvannealed steel (see section 2.01), 20 (.8mm), 18 (1mm), or 16 (1.3mm) gage. Mineral fiber core material to comply with the 250 deg. F (121 deg. C) maximum temperature rise rating.

14)  
- **Interior Doors** 18 ga. CRS
- **Exterior Doors** 16 ga. Galvannealed
SECTIION 08110 - Hollow Metal Doors and Frames
(Continued)

Frames:

1) Corners shall be fully mitered to hairline accuracy and all joints continuously electric welded in their entirety on the back side and then ground smooth on all exposed surfaces.

2) Hinge reinforcements shall be a minimum 7 gage steel.

3) **Auxiliary hinge reinforcement shall be used at all top hinge locations.** The reinforcement shall be 10 gage and welded to the standard reinforcement after it has been projection welded to the frame.

4) Strike reinforcements shall be a minimum 16 gage and prepared for ANSI-A115.1-2 strike.

5) Supply installed rubber bumpers, (3) per strike jamb and (2) per head, for pair of doors.

6) Reinforcements for surface closer shall be a minimum 14 gage steel. Adequate reinforcement shall be provided for other hardware when required.

7) Frames shall be furnished with a minimum of six wall anchors and two adjustable base anchors of manufacturer's standard design.

8) All frames doors and architectural stick components shall be cleaned, phosphatized and finished with one coat of factory baked on rust-inhibiting primer in accordance with ANSI A250.10-1998.

9) Closed sections shall have full length internal reinforcement of 16 gage steel, spot welded to both soffits at 8 inches on center.

10) Interior Frames 16 ga. CRS
    Exterior Frames 14 ga. Galvanized

11) Prepare all exterior door frames for conduit. Provide EPT power transfer hinge to bring power from the frame to the door. Also, provide box and conduit on all frame heads, latch side, for door monitor contact wire leads.
SECTION 8255 - Fiberglass Reinforced Polyester (FRP) Flush Doors with Aluminum Frames.

Acceptable manufacturers: Special-Lite, Inc. Decatur, Michigan

2. Stiles and Rails: Aluminum Alloy 6063-T5, minimum of 2-5/16-inch depth.
4. Provide joinery of 3/8-inch diameter full-width tie rods through extruded splines top and bottom as standard tubular shaped stiles and rails reinforced to accept hardware as specified.
5. Securing Internal Door Extrusions: 3/16-inch angle blocks and locking hex nuts for joinery. Welds, glue, or other methods are not acceptable.
6. Furnish extruded stiles and rails with integral reglets to accept face sheets. Lock face sheets into place to permit flush appearance.
7. Rail caps or other face sheet capture methods are not acceptable.
8. Extrude top and bottom rail legs for interlocking continuous weather bar.
9. Meeting Stiles: Pile brush weatherseals. Extrude meeting stile to include integral pocket to accept pile brush weatherseals.
10. Bottom of Door: Install bottom weather bar with nylon brush weatherstripping into extruded interlocking edge of bottom rail.

D. Face Sheet:
1. Material: SpecLite3 FRP, 0.120-Inch thickness, finish color throughout. Abuse-resistant engineered surface.
2. Texture: Pebble.

Specifier Notes: Specify a color for the FRP. Consult Special-Lite for availability of custom colors.

3. Color: [______________].

E. Core:
2. Density: Minimum of 5 pounds per cubic foot.

F. Cutouts:
1. Manufacture doors with cutouts for required vision lites, louvers, and panels.
2. Factory install vision lites, louvers, and panels.

G. Hardware:
1. Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule.
2. Factory install hardware.
2.3 MATERIALS

A. Aluminum Members:
   1. Extrusions: ASTM B 221.
   2. Sheet and Plate: ASTM B 209.
   3. Alloy and Temper: As required by manufacturer for strength, corrosion resistance, application of required finish, and control of color.

B. Components: Door and frame components from same manufacturer.

C. Fasteners:
   1. Material: Aluminum, 18-8 stainless steel, or other noncorrosive metal.
   2. Compatibility: Compatible with items to be fastened.
   3. Exposed Fasteners: Screws with finish matching items to be fastened.

2.4 FABRICATION

A. Sizes and Profiles: Required sizes for door and frame units, and profile requirements shall be as indicated on the Drawings.

B. Coordination of Fabrication: Field measure before fabrication and show recorded measurements on shop drawings.

C. Assembly:
   1. Complete cutting, fitting, forming, drilling, and grinding of metal before assembly.
   2. Remove burrs from cut edges.

D. Welding: Welding of doors or frames is not acceptable.

E. Fit:
   1. Maintain continuity of line and accurate relation of planes and angles.
   2. Secure attachments and support at mechanical joints with hairline fit at contacting members.

Specifier Notes: Delete the following article if architectural panels are not required. The SL-37 architectural panels are manufactured with the same SpecLite3 FRP face materials as the SL-17 flush doors.
2.5 ARCHITECTURAL PANELS

A. FRP Panels:

Specifier Notes: Specify the size and thickness of the FRP architectural panels.

   2. Size: [__________ by __________] [As indicated on the Drawings].
   3. Thickness: [1/4 inch] [1 inch] [__________ inch] [As indicated on the Drawings].

B. Face Sheets:
   1. Material: SpecLite3 FRP, 0.120-inch thickness, finish color throughout. Abuse-resistant engineered surface.
   2. Texture: Pebble.

Specifier Notes: Specify a color for the FRP. Consult Special-Lite for availability of custom colors.

   3. Color: [__________].

Specifier Notes: Delete the optional insulated FRP panels if not required.

C. Insulated Speclite3 FRP Panels:
   1. Insulated Panels: Two 0.120-inch minimum thickness sheets.
   2. Core: Foamed polyurethane core of a minimum of 5 pounds per cubic foot density.
   3. Form components to function as single unit.
   4. U-Value: Minimum of 0.18 for 1-inch panels.

Specifier Notes: Delete the optional Class A flame spread and smoke developed rating if not required.

D. Class A Flame Spread and Smoke Developed Rating:
   1. Class A flame spread and smoke developed rating on interior faces of exterior panels and both faces of interior panels.
2.6 ALUMINUM DOOR FRAMING SYSTEMS

A. Tubular Framing:
1. Size and Type: As indicated on the Drawings.
3. Applied Door Stops: 0.625-inch high, with screws and weatherstripping. Door stop shall incorporate pressure gasketing for weathering seal. Counterpunch fastener holes in door stop to preserve full metal thickness under fastener head.
4. Frame Members: Box type with 4 enclosed sides. Open-back framing is not acceptable.
5. Caulking: Caulk joints before assembling frame members.
6. Joints:
   a. Secure joints with fasteners.
   b. Provide hairline butt joint appearance.
7. Field Fabrication: Field fabrication of framing using stick material is not acceptable.
9. Hardware:
   a. Premachine and reinforce frame members for hardware in accordance with manufacturer’s standards and hardware schedule.
   b. Factory install hardware.
10. Anchors:
   a. Anchors appropriate for wall conditions to anchor framing to wall materials.
   b. Door Jamb and Header Mounting Holes: Maximum of 24-inch centers.
   c. Secure head and sill members of transom, side lites, and similar conditions.
11. Side Lites:
   a. Factory preassemble side lites to greatest extent possible.
   b. Mark frame assemblies according to location.

B. Insert Framing System:

<table>
<thead>
<tr>
<th>Specifier Notes: If required, specify one of the following SL-1030 Series insert framing systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model: SL-1030 Series, [SL-1031] [SL-1032] [SL-1034].</td>
</tr>
<tr>
<td>2. Insert frame as indicated on the Drawings, using integral stop fitted with weatherstripping.</td>
</tr>
<tr>
<td>3. Corner joints of miter design, secure with furnished aluminum clips, and screw into place.</td>
</tr>
</tbody>
</table>
| 4. Hardware:
   a. Premachine and reinforce insert frame members for hardware in accordance with manufacturer’s standards and hardware schedule. |
   b. Factory install hardware |
| 5. Anchors:
   a. Anchors of suitable type to fasten insert framing to existing frame materials. |
   b. Minimum of 5 anchors on jamb up to 7'-4" height, 3 anchors on headers, and 1 additional anchor for each additional foot of frame. |

C. Frame Capping:
2. Capping: With insert frame as indicated on the Drawings.
3. Finish: Match framing.
2.7 HARDWARE

A. Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule.

B. Factory install hardware.

Specifier Notes: Special-Lite offers a wide range of hardware products and services, including furnishing and factory installing hardware. Hardware may be either supplied by the Contractor or Special-Lite.

C. Hardware Schedule: [As follows] [As specified in Section 08710] [As indicated on the Drawings].

D. Finish: [Clear] [Dark Bronze] [__________________] [As specified in Section 08710] [As indicated on the Drawings].
Specifier Notes: Delete the following article if vision lites are not required.

2.8 VISION LITES

Specifier Notes: Specify 1/4-inch glass or 1-inch glass insulating units.

A. Factory Glazing: [1/4-inch glass] [1-inch glass insulating units].

B. Lites in Exterior Doors: Allow for thermal expansion.

Specifier Notes: Specify size of lites. Consult Special-Lite for custom lite requirements.

C. Rectangular Lites:
   1. Size: [12 inches by 12 inches] [Half lite] [Full lite] [Narrow lite] [Double lite] [____________ by ___________] [As indicated on the Drawings].
   2. Factory glazed with screw-applied aluminum stops anodized to match perimeter door rails.

Specifier Notes: Delete the optional security grate or vandal screen if not required.

   2. Expanded Metal: 1/4-inch diameter, round hole perforated, 14-gauge steel sheet.
   3. Finish: Factory painted to match door finish.

E. Vandal Screen: SL-SG350
   1. Frame Perimeter: Aluminum. Finish to match vision lite.
   2. Expanded Metal: 1/4-inch diameter, round hole perforated, 16-gauge stainless steel sheet. Powder coat black finish.

Specifier Notes: Delete the following article if louvers are not required
2.9 LOUVERS

A. Type: Aluminum, inverted Y-type, fixed blade, 12 inches minimum from bottom of door.

Specifier Notes: Specify the size of the louvers.

B. Size: [ ________ by ________ ] [As indicated on the Drawings].

C. Installation: Factory installed into standard vision lite kit. Exterior side of louver shall be free of fasteners.

Specifier Notes: Delete the optional insect screen if not required.

D. Insect screen.

2.10 ALUMINUM FINISHES

A. Anodized Finish: Class I finish, 0.7 mils thick.

Specifier Notes: Specify one of the following anodized finishes and delete the others.

1. Clear 215 R1, AA-M10C12C22A41, Class I, 0.7 mils thick.
2. Champagne, AA-M10C12C22A44, Class I, 0.7 mils thick.
3. Light Bronze, AA-M10C12C22A44, Class I, 0.7 mils thick.
4. Medium Bronze, AA-M10C12C22A44, Class I, 0.7 mils thick.
5. Dark Bronze, AA-M10C12C22A44, Class I, 0.7 mils thick.
6. Black, AA-M10C12C22A44, Class I, 0.7 mils thick.

Specifier Notes: Consult Special-Lite for painted finishes for aluminum.

B. Painted:
PART 3  EXECUTION

3.1  EXAMINATION

A. Examine areas to receive doors. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2  PREPARATION

A. Ensure openings to receive frames are plumb, level, square, and in tolerance.

3.3  INSTALLATION

A. Install doors in accordance with manufacturer’s instructions.

B. Install doors plumb, level, square, true to line, and without warp or rack.

C. Anchor frames securely in place.

D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.

E. Set thresholds in bed of mastic and backseal.

F. Install exterior doors to be weathertight in closed position.
   Repair minor damages to finish in accordance with manufacturer’s instructions and as approved by Architect.

H. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

Specifier Notes: Delete the following article if manufacturer's field services are not required.
3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for installation of doors.

3.5 ADJUSTING

A. Adjust doors, hinges, and locksets for smooth operation without binding.

3.6 CLEANING

A. Clean doors promptly after installation in accordance with manufacturer's instructions.

B. Do not use harsh cleaning materials or methods that would damage finish.

3.7 PROTECTION

A. Protect installed doors to ensure that, except for normal weathering, doors will be without damage or deterioration at time of substantial completion.

END OF SECTION
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Plumbing Fixture Specifications

1. Toilet bowls: American Standard Model # 3351.712
2. Urinals: American Standard Wash Brook Model # 6590.525
3. Flush Valve: (Toilet) Toto TET1GNC 1.6 gpf
4. Flush Valve: (Urinal) Toto TEU1GNC 1.0 gpf
5. Restroom sinks: 2 Station Express Lavatory System MG-2 (No soap dispenser and no NDite Technology) [https://www.bradleycorp.com/lavatories/lavatory-systems/express-mg/2-station-express-lavatory-system](https://www.bradleycorp.com/lavatories/lavatory-systems/express-mg/2-station-express-lavatory-system)
6. Restroom sinks: 3 Station Express Lavatory System MG-3 (No soap dispenser and no NDite Technology) [https://www.bradleycorp.com/lavatories/lavatory-systems/express-mg/3-station-express-lavatory-system](https://www.bradleycorp.com/lavatories/lavatory-systems/express-mg/3-station-express-lavatory-system)

Chicago Faucets: For any Kitchen faucets, Janitorial closets, and class room faucets

Lighting Fixture Specifications

9. 2x4 and 2x2 light fixtures: Cooper Metalux 2RDI-IC
10. Motion Sensors: Lutron LOS-CDT-2000 WH
11. Switch plates and switches: Ivory in existing areas

Building Finishes

12. Paint: 12 Standard colors for East & West Campus
13. Vinyl Base: Medium Gray
14. Carpet: Milliken carpet in hallways
15. Ceiling Tiles: 770 Ortega Armstrong ceiling tiles
Century College East Campus Code Review

The East Campus Building is a 3 story facility, constructed in the 1970’s, of approximately 360,000 square feet, all floors at or above grade. Levels 1 and 2 each contain about 150,000SF and Level 3 is about 60,000SF. Each level is arranged in a configuration of north and south wings, joined at the center with circulation space. A central north/south corridor serves as the circulation organizer of the building. The western side of the building consists of three stories of classroom and office space, while the east side of the building consists of a significantly larger 2 story high area at level 1 used for shop space. The building is completely sprinkled.

The west side of the building structure (west of grid C) is fireproofed steel beams spaced at approximately 8 feet on center and supported by girders spaced at 24 feet on center. Supported floors are 4 1/2" lightweight concrete on 1 1/2" 18 gauge composite metal deck. Field verification of the fire proofing shows that the thickness is about 3/8". Steel columns are shown with sufficient gypsum board covering to be 3 hour rated (UL X-510 noted on the Daverman drawings dated 7-10-74). The roof structure is shown on the drawings as 2 hour rated UL RC-7.

Level 1 on east side of the building (east of grid C) was originally a single story space framed with long span joists located at approximately the level 3 floor elevation, resulting in the single story area about 2 levels high. The long span joists, the bottom of which are at 20' above the floor, are not fire protected. The northern wing east of grid C remains as essentially a 2 story space. The southern wing, however, has seen a number of additions and remodelings which have “filled-in” nearly all space with an additional floor at level 2, resulting in 2 levels in what was originally one. The floor structure of most of these additions was constructed of unprotected steel. The long span joists once 20' above level 1 but now about 8'-5" above the new level 2, remain as unprotected steel after these remodelings.

LEO A DALY used the 1971 UBC thru 2006 IBC when asked to evaluate the building for compliance with code, but relied most heavily on the 2006 International Building Code. We have classified the type of construction as Type 2-B, as much of the building is constructed of unprotected steel. We have also taken advantage of area modifications in Section 508 for frontage and sprinkling. The frontage calculations account for potential expansion of the building in the areas shown. Occupancies are primarily Business and Educational, as the building contains educational functions for students both below and above the 12th grade. However, the essential issue is that the building is larger than permitted when considering construction type, occupancy, height, frontage and sprinklers, using either the 1971 code or the code in force today. For that reason we are also proposing area separation walls be utilized as a method to justify the building’s size. Area separation walls were a part of the Uniform Building Code for a number of years but are not a component listed in the 2006 International Building Code, replaced by the fire wall.

Area separation walls will be required to be supported by 2 hour rated floor construction, but otherwise will end the need for maintaining the fireproofing on the west side of the building.
It is our opinion that a proposed plan which uses all of the above elements; construction type, occupancy, height, frontage, sprinklers, and area separation walls, will result in a building which has a clear plan for future construction and remodeling which essentially meets the intent of the code with reasonable economy.

It is our intent that this document serve as a proposed guide for future work at the East Campus, outlining the known code compliance shortcomings so these items are addressed as future projects are implemented. Although this project was initiated largely due to concerns over whether the building structure was to be fireproofed, we have also investigated distance to exit, exit enclosure, shafts and compliance (toilet fixture count) with Chapter 29 of the IBC. Distance to exit appears to be in compliance.

We have also reviewed the number of exits provided for each building if area separation walls are used which are summarized on the enclosed table. Of particular note, however, is that doors and frames into the exit enclosures do not appear to be labeled. Two stair enclosures on the west side of the building, at the approximate center of both the north and south wings (Grids D, 10 and D, 25) exit into an improperly protected exit passageway at Level 1. These exits must also be continuous to the public way.

According to the drawings, penetrations through floors appear to have been dampered. Any future remodeling work which penetrates the floors or other rated assemblies must be accomplished in conformance with the code.

Enclosed, are code diagrams and calculations to support this position and to aid future designers as they implement some of these changes as part of their projects.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota

Jonathan A. Crump

Name

20055

License # Date

Jonathan A. Crump, AIA, LEED® AP
Principal

Enclosures:

Sheets A1.01, A1.02, A1.03, dated June 21, 2011
Sheets A2.01, A2.02, A2.03, dated June 21, 2011
Allowable Area Calculations, dated 6/8/11, sheets 1 thru 10 of 10
Chapter 29 Compliance, dated 7/1/11, sheets 1 thru 3 of 3
Occupant Load and Exit Calculations, dated 7/1/11, sheets 1 and 2 of 2

JAC: cpz
NOTES:

1. OCCUPANCIES SHOWN ARE B (BUSINESS) UNLESS OTHERWISE NOTED.
2. NUMBER INDICATES BUILDING. REFER TO ALLOWABLE AREA CALCULATIONS.
3. EDUCATIONAL OCCUPANCIES SHOWN RED.
4. ASSEMBLY OCCUPANCIES SHOWN GREEN.
5. THIS BUILDING MAY BE CLASSIFIED AS 2B (UNPROTECTED NONCOMBUSTIBLE CONSTRUCTION) PER THE 2006 INTERNATIONAL BUILDING CODE IF THE PROPOSED AREA SEPARATION WALLS ARE PROVIDED. THE AREA SEPARATION WALLS SHALL BE IN THE LOCATIONS INDICATED OR MODIFIED TO MEET ALLOWABLE AREA REQUIREMENTS OF THIS CODE. AREA SEPARATION WALLS SHALL MEET THE DESIGN REQUIREMENTS OF CHAPTER 505 OF THE 1988 UNIFORM BUILDING CODE.
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3. EDUCATIONAL OCCUPANCIES SHOWN RED.
4. ASSEMBLY OCCUPANCIES SHOWN GREEN.
5. THIS BUILDING MAY BE CLASSIFIED AS 2B (UNPROTECTED NONCOMBUSTIBLE CONSTRUCTION) PER THE 2006 INTERNATIONAL BUILDING CODE IF THE PROPOSED AREA SEPARATION WALLS ARE PROVIDED. THE AREA SEPARATION SHALL BE IN THE LOCATIONS INDICATED OR MODIFIED TO MEET ALLOWABLE AREA REQUIREMENTS OF THIS CODE. AREA SEPARATION WALLS SHALL MEET THE DESIGN REQUIREMENTS OF CHAPTER 505 OF THE 1988 UNIFORM BUILDING CODE.
BUSINESS SPACE FUNCTIONS

OCCUPANT LOAD TO DETERMINE COMPLIANCE WITH CHAPTER 29, IBC.

ACCESSORY STORAGE, MECHANICAL
CLASSROOM
KITCHEN

3RD FLOOR OCCUPANT LOAD PLAN
SCALE: 1/32" = 1'-0"

NOTES:
1. NUMBER IN CIRCLE IS OCCUPANT LOAD.
2. OCCUPANT LOAD OF CLASSROOMS IS BASED ON ACTUAL ROOM OCCUPANCY.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed architect under the laws of the State of Minnesota.
Print Name: Jonathan A. Crump
Signature: ____________________________
Date: July 25, 2011 License: 20055