

Minnesota State Colleges & Universities

Projects Summary (\$ in Thousands)

Project Title	2014 Agency Priority Ranking	Agency Project Request for State Funds (\$ by Session)				Governor's Recommendations 2014	Governor's Planning Estimate	
		2014	2016	2018	Total		2016	2018
Higher Education Asset Preservation and Replacement (HEAPR)	1	\$110,000	\$0	\$0	\$110,000	\$0	\$0	\$0
Demolition-Demolition of obsolete space on campuses	2	20,576	0	0	20,576	0	0	0
Metropolitan State University - Science Education Center new construction	3	35,865	0	0	35,865	0	0	0
Bemidji State U-Business Bldg renov, Sanford Hall demolish, & Hagg Sauer design	4	13,790	5,000	0	18,790	0	0	0
Lake Superior College - Allied Health (86' Wing) Revitalization renovation	5	5,266	0	0	5,266	0	0	0
Minneapolis Community & Technical College - Workforce Program Phase 2 renovation	6	3,600	0	0	3,600	0	0	0
Saint Paul College - Initiatives	7	1,500	0	0	1,500	0	0	0
Minnesota State College-Southeast Technical-Initiatives	8	1,700	0	0	1,700	0	0	0
Central Lakes College, Staples - Campus Rightsizing renovation	9	4,581	0	0	4,581	0	0	0
Minnesota State University, Mankato-Clinical Sciences Facility new construction	10	25,818	4,444	0	30,262	0	0	0
Minnesota State Community & Technical College, Moorhead -Transportation Center	11	6,544	0	0	6,544	0	0	0
Rochester Community & Technical College-Design, post-demolition	12	1,000	5,000	0	6,000	0	0	0
Minnesota West Community & Technical College - Initiatives	13	3,487	0	0	3,487	0	0	0
Dakota County Technical College-Transportation & Emerging Tech. renovation	14	7,586	0	0	7,586	0	0	0
Century College - Initiatives	15	2,020	0	0	2,020	0	0	0
Northland Community & Technical College, TRF - Aviation Maintenance Facility	16	5,864	0	0	5,864	0	0	0
NHED Itasca, Hibbing, Rainy River, Vermilion-Initiatives & Demolition	17	3,344	8,600	0	11,944	0	0	0
Winona State University - Education Village, Phase I renovation	18	5,902	18,697	0	24,599	0	0	0
Anoka Technical College - Initiatives	19	1,500	0	0	1,500	0	0	0
Saint Paul College - Health and Science Alliance Center addition	20	14,482	0	0	14,482	0	0	0
Century College - Classroom & Workforce Alignment addition	21	1,000	12,432	0	13,432	0	0	0
South Central College - STEM & Healthcare Workforce	22	7,467	0	0	7,467	0	0	0

renovation								
St. Cloud State University-Student Health & Academic renovation	23	865	15,000	0	15,865	0	0	0
Minnesota State Community & Tech College - Initiatives	24	1,385	0	0	1,385	0	0	0
Northland Community and Technical College, East Grand Forks - Initiative	25	749	0	0	749	0	0	0
Winona State University - Initiative	26	592	0	0	592	0	0	0
Total Project Requests		\$286,483	\$69,173	\$0	\$355,656	\$0	\$0	\$0

Higher Education Asset Preservation and Replacement (HEAPR)

2014 STATE APPROPRIATION REQUEST: \$110,000,000

AGENCY PROJECT PRIORITY: 1 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: \$20 million (2012)

Project At A Glance:

- \$110 million total request
- 112 projects, 88 with energy savings potential
- \$35 million in roof replacements and repairs
- \$35 million in heating, ventilation and air conditioning
- \$20 million for exterior/wall repairs
- Remainder in life safety, design and storm water utility improvements

PROJECT DESCRIPTION:

Provide funding per MS §135A.046 Higher Education Asset Preservation and Replacement (HEAPR) is to maintain and preserve the Minnesota State Colleges & Universities existing physical assets. This asset preservation request includes repair and replacement to roofs, plumbing and electrical systems, heating, ventilation and air conditioning (HVAC), upgrade and/or installation of fire alarms and sprinklers, elevators, window replacement, tuckpointing, life safety and code compliance projects; and replacement of other items that have reached the end of their useful life expectancy. Verification of projects to ensure energy efficiency and advancing operational sustainability is a key factor in these campus-generated and priorities.

Minnesota State Colleges & Universities' physical assets encompass approximately 21.7 million gross square feet of academic buildings located on 54 campuses.

Request can be broken into the following major categories:

- Mechanical, plumbing and electrical system reliability
- Roof replacement
- Life safety and code compliance

This year, the request includes a modest component to account for stormwater utility work that may be necessary.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Preserving the existing facilities will ensure continued full access to colleges and universities classrooms, labs and related spaces. Keeping them warm safe and dry is a critical component for all Minnesotans who attend our institutions.

Be the partner of choice to meet Minnesota's workforce and community needs:

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

It is estimated that approximately 80% of the projects have an energy savings potential. At this writing over \$90 million of the projects may have an energy savings potential (which includes roofing replacements).

Institution Master Plans and Regional Collaborations:

HEAPR is a critical component of the system's philosophy to "take care of what we have".

Borrowing the moniker from the state's B3, the system's approach contemplates a "R3" strategy of "Repair, Replace and Renew" of system assets. The R3 strategy is driven by a backlog and renewal forecasting tool that is annually updated to determine the Facilities Condition Index (FCI). The FCI is an index derived by dividing the values of deferred maintenance by the current replacement value of the campus facilities.

The size of the HEAPR request was determined, as in prior capital budgets, by considering the funding level needed to correct building deficiencies (reduce the backlog) and renew facilities in a timely manner to avoid backlog growth.

Higher Education Asset Preservation and Replacement (HEAPR)

Three major funding sources are included in this plan:

1) Renovation and renewal within the Capital Budget specific projects:

The capital budget is the primary mechanism to renovate and “take care of what we have.” For the last ten years this has consistently yielded more renovation and modernization of existing space projects than projects for new square footage. In the system’s 2014 request, over 1.5 million square feet of space would be impacted if the budget is fully funded.

2) Campus Funded Repair and Replacement: Campuses are expected to fund their own ongoing repair and replacement. Direction to the campus has been established that they spend at least \$1.00 per square foot as an annual target designated from operating funds on Repair and Replacement (R&R).

3) HEAPR projects funding critical facilities components. The current backlog is \$705 million systemwide. HEAPR projects are requested to directly impact the backlog of deferred maintenance. In prior capital budgets, the need for \$110 million in HEAPR projects was based on the level of anticipated funding for line-item renovation and renewal projects and campus funding of R&R.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment:

Pursuant to capital budget instructions, the system’s list contains 88 projects that may be eligible for the Department of Commerce’s guaranteed energy savings program. The eligible list represents approximately \$93 million worth of projects.

Deferred Maintenance Backlog removed: Conservatively, \$1 in HEAPR spending will reduce deferred maintenance by \$1, although in many cases, higher ratio of return will occur depending on the size and scope of the HEAPR allotment and the particular system being replaced.

Rightsizing and Space Utilization Improvement: Improvements in indoor air quality and temperatures, envelope integrity, and similar improvements have the direct effect of making space more desirable and more likely to be better used.

Energy efficiency and/or other Sustainability Improvements: Nearly 90% of the work in the current list could positively impact energy consumption on campuses.

IMPACT ON AGENCY OPERATING BUDGETS (Facilities Notes):

Capacity of Current Utility Infrastructure: The expectation is that the campus operating budgets will see a cost reduction in utility expenses with the majority of project improvements.

Building Operations Expenses: Expected to be reduced as a result of the work.

OTHER CONSIDERATIONS:**Consequences of Delayed Funding**

- Further deterioration of building envelopes, which would magnify the cost and problem system wide
- Fail to take advantage of significant improvements in building performance and energy efficiency improvements
- Identified code requirements will not be met

Thirty Month Execution:

Historically, Minnesota State Colleges & Universities developed and implemented a HEAPR execution strategy to encumber in 25 months period and complete HEAPR projects in 30 months of receiving an appropriation. The system’s ultimate goal is to cut the timing by about half.

Of the \$20 million received in the 2012 capital bonding bill, the system has encumbered 68% as of June 2013 and spent about 30%. Of the \$30 million received in the 2011 capital bonding bill, the system has encumbered 98% and spent 95%.

This accelerated execution schedule was made possible by:

- Projects being delegated to respective MnSCU institutions
- Advance engineering completed by the college or system office prior to funding
- Accurate and timely project cost and project status reporting on-line

Higher Education Asset Preservation and Replacement (HEAPR)

- Developing expedited contracting procedures for pre-approved engineering consultants

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Demolition-Demolition of obsolete space on campuses

2014 STATE APPROPRIATION REQUEST: \$20,576,000

AGENCY PROJECT PRIORITY: 2 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Systemwide demolition
- Demolition of 403,450 GSF
- Eliminate approximately \$30 million of deferred maintenance backlog

PROJECT DESCRIPTION:

The demolition proposal was developed after an analysis of the completed 2014 capital project submittal. This proposal is designed to provide incentives to campuses to take action on removing obsolete space from their overall campus facilities and reduce the overall campus footprint. This can assist in improving overall space utilization, efficiency, and sustainability, and allow for reducing deferred maintenance.

Demolish and renovate at up to 12 campuses and remove obsolete space that has been identified in the campus's facilities master plans or for campuses that wish to avail themselves of demolition funding to take obsolete space off line. This will better align campuses with financial and demographic changes predicted during the next 7-10 years.

- **Alexandria TCC:** Temporary Building (TH8), 5,000 GSF
- **Bemidji State University:** Hagg Sauer Building, 82,500 GSF
- **Central Lakes College, Staples:** Ag/Energy Center Campus, 6,000 GSF
- **Minnesota State CTC, various campuses:** 50,000 GSF
- **Minnesota West CTC:** Building 1 and 3, 16,500 GSF at Canby, and 300 Building, 23,350 GSF at Granite Falls
- **NHED, various campuses:** 25,000 GSF
- **NHED-Vermilion CTC, Ely:** IT Center, 2,300 GSF
- **Riverland Community College:** Albert Lea, Austin campuses, various spaces, 79,000 GSF
- **Southwest MN State Univ.:** various locations, 48,000 GSF
- **Rochester CTC:** Memorial, Plaza, and Art Halls, 43,800 GSF

- **Systemwide Design & Demolition:** Small projects, 22,000 GSF

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

xxx

Be the partner of choice to meet Minnesota's workforce and community needs:

xxx

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

xxx

Institution Master Plans and Regional Collaborations:

xxx

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: xxx

Deferred Maintenance Backlog removed: xxx

Rightsizing and Space Utilization Improvement: xxx

Energy efficiency and/or other Sustainability Improvements: xxx

IMPACT ON AGENCY OPERATING BUDGETS (Facilities Notes):

Capacity of Current Utility Infrastructure: xxx

Building Operations Expenses: xxx

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

xxx

Demolition-Demolition of obsolete space on campuses

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Metropolitan State University - Science Education Center new construction

2014 STATE APPROPRIATION REQUEST: \$35,865,000

AGENCY PROJECT PRIORITY: 3 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2011, Science Education Center - \$3,444,000 (design and property acquisition)

Project At A Glance:

- Provides the science facilities necessary to support the campus's rapidly growing Nursing and Health Science programs
- Renovation of 3,550 GSF
- New Construction of 65,712 GSF
- Number of classrooms/labs impacted: 19
- Eliminate annual lease expenses and return programs to campus
- Provide 4-year access in science and allied health in the metro area

PROJECT DESCRIPTION:

Metropolitan State University is the only system university to have no dedicated science building. This project will provide for the construction of a 65,712 gsf Science Education Center and renovation of 3,550 gsf of existing space, in support of Minnesota's priority to increase graduates in STEM (Science, Technology, Engineering, and Mathematics) fields, including the training of STEM teachers, especially for urban schools. It will improve the education of non-science baccalaureate majors by enabling the university to fulfill the Minnesota Transfer Curriculum standard of two science courses, instead of the one that is currently required. The Science Education Center will provide the science facilities necessary to support our rapidly growing Nursing and Health Science programs.

Metropolitan State University is aggressively growing its capacity and presence, increased its enrollment from 5,412 FYE in FY10 to 6,086 FYE in FY12, and expectations are for this growth trajectory to continue. Currently, there are 588 pre-majors and majors in the sciences, far outstripping the expectation of 400 by the time the Science Education Center would open. Growth of the University's physical infrastructure and supporting key instructional areas are essential.

Metropolitan State currently offers three Science degrees (Biology (BA); Biology (BS); and Life Sciences Teaching (BS)) and two minors (Chemistry and Physics), taught in under-equipped and under-sized labs on two campuses. The Science Education Center will support five additional degrees: Earth and Space Teaching (BS), Earth Science (BS), Chemistry Teaching (BS), Chemistry (BS), Environmental Studies (BA), and a Professional Science Master's degree in Ecology and Environmental Science. The Science Education Center will create a network of teaching and research laboratories, classrooms, student support spaces and faculty offices to support Science, Nursing, Health Sciences and non-Science Programs. The Science Education Center will be linked to the other campus buildings by a skyway to enhance safety and efficient use of inter-departmental space sharing.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The Science Education Center will expand access to underserved students, including students of color, adult students and working students. Students of color represent 34% of current enrollment at Metropolitan State University. Most of the growth in the pre-college-age student populations is projected to take place among communities of color, for whom Metropolitan State has been a provider of choice and is uniquely positioned to serve. Locating the new Science Education Center at the main campus will recruit and engage more students, especially students from underserved populations, in STEM and allied disciplines.

Be the partner of choice to meet Minnesota's workforce and community needs:

This project responds to one of the highest state and MnSCU priorities: To increase the number of graduates in STEM fields, especially urban science teachers and Bachelor of Science graduates. Of all degrees awarded to date by the university, over 70% have been to metro-area students. After graduation, 79% of Metropolitan State graduates stay in the metropolitan area and serve their communities. These graduates increase regional vitality by serving their metro- area neighborhoods and Minnesota's workforce

Metropolitan State University - Science Education Center new construction

needs. The Twin Cities metropolitan area is expected to see an increase in science positions of 14% (4,450), paying on average \$29/hour. The Science Education Center will enable Metropolitan State University to expand the majors and minors offered to meet workforce needs and graduate students to fill these positions.

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

With only one hood in each of the two current science laboratories, class sizes must be extremely limited to ensure hood access. The Science Education Center will enable Metropolitan State to produce diverse graduates in high-priority STEM disciplines and professions. Metropolitan State's first research labs will increase the university's ability to provide undergraduate research experiences preparing students for employment and post-graduate study in science.

The current laboratory facilities are insufficient to support anatomy and physiology and microbiology (required for nursing and health sciences), and advanced chemistry, biochemistry, and biotech courses, or undergraduate and faculty research in science (current faculty research is done off-campus at the University of Minnesota). The lack of science lecture and lab facilities make it impossible for Metropolitan State University to meet current student demand for science courses, which forces a majority of students to take their general education and foundation science courses elsewhere.

PROJECT RATIONALE: The existing facilities for the Science curriculum at Metropolitan State are wholly inadequate in terms of space, equipment, efficiency, safety and the number of students they can support. The two existing science labs on the St. Paul Campus are unable to meet the needs of the 588 students who have already declared (2012) pre-majors and majors in science. Facility expansion is the only way to support Metropolitan State University's realized projected growth in the sciences with academic and infrastructure integrity.

In addition to the science laboratories on the St. Paul Campus, Metropolitan State also leases two unvented and un-hooded general education science labs at the Midway site. While these spaces are useful in providing space for field-trip based general education courses, they are incapable of supporting the experiences required for laboratory courses.

In order to meet the growing demand in the sciences, the Academic Affairs Strategic Plan calls for an increase in the number of full-time resident faculty in Natural Sciences from 7 (2012) to 15 (2016). The total number of part-time community faculty will also increase from 16 to 25.

Metropolitan State's demographics, the growth trend in urban areas, the continued growth of science majors, and the plan to begin requiring two general education science classes as recommended by MN Transfer indicate that prospective students will fill the laboratory and course seats available in the new building.

Institution Master Plans and Regional Collaborations: Metropolitan State University has well established relationships with such corporations as 3M, Ecolab, and other major Twin Cities corporations. In addition, the university engaged representatives from Valspar, Barr Engineering, Emmons and Oliver Resources Incorporated, BIO-NRG LLC, the Pollution Control Agency, the Department of Natural Resources, the City of Blaine, and Ramsey County Parks in exploring and developing a Professional Science Masters Program.

Metropolitan State makes efficient use of system partnerships. For nursing programs, Metropolitan State partners with area community colleges offering RN degrees (Anoka Ramsey, Century, Inver Hills, Normandale, and North Hennepin). Plans are underway to begin a collaborative BSN program, called MANE, with seven community colleges, which will allow for a four year nursing degree to be completed on all seven campuses. This same program will begin at Metropolitan State. In addition, Metropolitan State University has Biology B.A. articulation agreements with Inver Hills Community College and Life Sciences Teaching B.S. articulation agreements with Century College and Inver Hills Community College. The university is working collaboratively with St Paul College to develop pathways for students with interests in STEM, STEM education, and health care.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The College of Arts and Sciences along with the science faculty is drafting a National Science Foundation Step Grant application (\$1 million over 5 years) to be synched with the construction of

Metropolitan State University - Science Education Center new construction

the new building to ensure we would be able to accommodate the increased numbers of science majors.

Campus Data:	2008	2009	2010	2011
FYE	4,745	5,069	5,412	5,850
Headcount	9,115	9,606	10,013	10,930
Space Use %	80	93	93	90
R & R (per sq. ft.)	\$0.85	\$1.65	\$1.83	\$2.04
FCI	0.01	0.02	0.03	0.01

Rightsizing and Space Utilization Improvement: This project is solving a chronic space shortage by creating science laboratory space. The project will convert the existing lab space in New Main into a GIS computer lab and support offices that are being displaced from Founders Hall by the skyway construction.

Energy efficiency and/or other Sustainability Improvements: In compliance with the State of Minnesota’s B3 requirements, and with a goal of consuming at least 30% less energy than required by State Code. Storm water will be pre-treated on site.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: This facility will include its own heating and cooling equipment, as well as electrical service. The project will connect into the adequate utility infrastructure.

Building Operations Expenses: Operating expenses will increase by \$538,000 per year after this building is occupied, due to increased expenditures for energy and electrical power, water and sewer charges, refuse costs, technology provider costs, and staff costs for cleaning, maintenance, and security. Lease costs will decrease by \$91,000/ year through elimination of two laboratory spaces and two classrooms at the Midway campus.

- Operating: \$11.65 SF and \$ 780,000/yr Total
- Renewal spending @ \$1/SF: \$66,910/yr

Debt Service: Current \$ 1,014,690 & Projected Debt Service with Added Project: \$ 1,896,486.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

Delayed funding will counter the high priority the State of Minnesota has placed on producing qualified baccalaureate graduates in STEM and STEM education. Insufficient sections will be offered to meet the demands of science and science education majors.

Science majors will continue to complete coursework in labs falling beneath the physical standards observed in most Minnesota high schools. In addition, given the dearth of research laboratories in existing space, science majors will continue to be deprived of opportunities to engage in faculty/mentor-based research. Employers and graduate schools often use research experience as criterion in selection.

The university will be unable to move ahead with requiring the second general education science course required by Minnesota Transfer Curriculum guidelines.

The launch of new science majors (Chemistry BS, Chemistry Teaching BS, Earth and Space Teaching BS, Environmental Science BS), and the timing and frequency of class offerings for current science majors will be significantly impaired

Inability to offer the science courses that are pre-requisites and/or required for nursing and health science majors will significantly reduce the number of graduating health care professionals and prohibit new programs in nursing and health science, including the 4-year BSN. Nursing would be restricted to one section of anatomy and physiology and one section of microbiology, resulting in 32 BSN’s having access to these courses on campus compared to the 100-150 students expected to need those courses each year by 2016.

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Bemidji State U-Business Bldg renov, Sanford Hall demolish, & Hagg Sauer design

2014 STATE APPROPRIATION REQUEST: \$13,790,000

AGENCY PROJECT PRIORITY: 4 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, College of Business (renovation) and Maple Hall (demolition) - \$3,303,000

Project At A Glance:

- Bring the Business and Accounting Department back into the Academic heart of the University
- Schematic Design completed
- Renovation and Renewal of 58,500 GSF (Memorial and Decker)
- Addition of 4,000 GSF
- Number of classrooms/labs impacted: 8
- Demolition of 17,000 GSF (Sanford Hall)
- Collaboration with three departments
- Convert underutilized gymnasium into classrooms without expanding the footprint of the campus
- Eliminate \$4.6 million of deferred maintenance backlog
- FY2016 Request of \$5,000,000 for the design and renovations of relocations resulting from the Hagg Sauer demolition

PROJECT DESCRIPTION:

This project will bring the Business and Accounting Departments, currently housed in Decker Hall, an outdated building located in the residential zone of campus, back into the academic heart of the university. Currently located in a reconstituted dining hall, these programs are in need of smart classrooms and learning laboratories that can accommodate the use of mediated instructional technologies, flexible classroom sizes, group study problem-solving learning environments, and distance learning delivery systems. New facilities will also give the business program the visibility and corporate image it needs to continue its growth.

The underutilized gymnasium in Memorial Hall will be renovated into classroom and instructional space over two stories. This will give the university more usable space without expanding the footprint of the campus.

The renovation will inject new life into a landmark building on campus and will remove over \$2.5 million of deferred maintenance backlog. A small addition to Memorial Hall will also remove an unfinished and unsightly exterior wall that faces the main plaza of the campus.

Sanford Hall, which is 17,012 gross square feet, would be demolished and the student service functions located in that building would be moved to a remodeled Decker Hall. A remodeled Decker Hall will bring together student life and student support services in the heart of campus – central to instructional facilities and the residence halls.

In addition to demolition of Sanford Hall, demolition of Hagg Sauer Hall will also occur. The Hagg Sauer demolition project is part of the system's number 2 priority, Demolition. In the meantime, the functions/users need to be relocated throughout the campus as Hagg Sauer is being demolished. The cost for relocation is approximately \$1 million for 2014 and \$5 million is expected for the 2016 Capital Request.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The project would create innovative learning space by having the college's outreach centers in one central location with faculty offices, dean's office, and center offices together. Space will be structured as multifunctional so there are spaces for conference rooms, seminars, learning kiosks, and for larger lectures.

The prominent location within the academic zone would heighten awareness of services and programs which would assist in increasing participation of underrepresented populations. External entities that currently work with these programs would have space available on campus, increasing access to a broader audience of students.

The units currently housed in Sanford Hall provide students with an opportunity for enhanced academic support. Creating a new space in Decker Hall for the student services units currently housed in Sanford Hall will provide students with an integrated approach to support and an ease of

Bemidji State U-Business Bldg renov, Sanford Hall demolish, & Hagg Sauer design

access for assistance. A renovated Decker Hall will allow for the opportunity to provide more flexible space for disability, career and advising services. It will facilitate student group work in programs such as tutoring, career seminars and testing. These services will be more accessible to students as there is easier elevator access available than in Decker and more available parking that is adjacent to the building.

Be the partner of choice to meet Minnesota's workforce and community needs:

The project would provide cutting-edge technology that would provide the ability to increase collaborative opportunities with business and industry partners. Space is being constructed for professional gatherings that can accommodate 50-60 people and have a professional appearance and features.

An example of a recent venture that would benefit for this project is InternBemidji. InternBemidji is the result of collaboration between BSU, NTC, and Oak Hills Christian College and area business leaders. InternBemidji simplifies the process for employers of finding bright, talented students for short term projects, jobs, and internships.

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

Since this project results in an overall net decrease in campus square footage and eliminates one off-campus lease arrangement, operating and utility costs for the campus will decrease at the conclusion of this project along with decreasing maintenance backlog.

This project will better utilize space that currently is underutilized. Providing conference and classrooms will provide the opportunity for more student/faculty learning exchanges and experiences.

PROJECT RATIONALE: This project is ranked as the highest priority in the university's master academic and facilities plans. Supporting the teaching and learning environment is one of the six major goals of our master academic plan. The creation of an updated building for business will create a true physical identity for them. This will allow them to further build successes in increasing enrollment, corporate involvement, and bringing future employers to campus.

The university has a growing business administration program that offers various options such as management, international business, entrepreneurship/small business management, finance, and marketing. An emphasis is placed allowing students to work on real-world projects with real professionals under the guidance of the faculty. Enrollment in business administration has increased by nearly 27% the past five years.

The accounting program also continues to expand as the faculty focus on individual student development to establish a set of career goals and provide them with the guidance and opportunities to achieve them. Ninety-three percent of our graduates find employment in a related field. Enrollment in accounting has increased by nearly 25% the past five years.

Decker Hall, the current location for the accounting and business programs, has a backlog of nearly \$1 million. Portions of the current facility are not ADA compliant; the classroom layouts are poorly organized; many spaces do not have do not have natural light; and the facility is plagued with inadequate climate control. This space would be renovated to bring together the student support and student life functions.

Student support services that are currently located in Sanford Hall would be relocated to a remodeled Decker Hall. The current facility location is cramped, poorly organized, inefficient and outdated. Sanford Hall would be demolished. Sanford Hall has a FCI of 0.25 and a deferred maintenance backlog that is \$1.19 million.

Institution Master Plans and Regional Collaborations: This project is in close alignment to the BSU's Master Facility Plan. This project accomplishes the master plan goals by: relocating academic programs in a concentrated location on the east side of campus; better utilizing Memorial Hall; reducing campus square footage through demolition of outdated facilities; increasing and enhancing the pedestrian connections on campus; beginning to open the campus to Lake Bemidji; and initiating the eventual goal of relocating the Student Union and Dining facilities to a more centralized location on campus.

Current partnerships with entities such as DEED, Northwest MN foundation, White Earth Nation, Red Lake Nation, and Leech Lake Nation along with many others could be expanded.

Bemidji State U-Business Bldg renov, Sanford Hall demolish, & Hagg Sauer design

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The Imagine Tomorrow campaign was launched in August 2011 by the university foundation. Academic Excellence is one of the three major goal areas of the campaign. There will be opportunities through this process to explore naming gifts which would provide additional funding for furnishing, fixtures, and equipment.

BSU continues to work aggressively with its local utility companies to explore funding opportunities to assist the sustainable and energy efficient features of a new building. We have had success in getting funding to help study some of these features along with getting rebates after equipment has been changed out.

Campus Data:	2008	2009	2010	2011
FYE	4,272	4,276	4,485	4,715
Headcount	6,562	6,531	6,700	6,870
Space Use %	72%	59%	61%	64%
R & R (per sq. ft.)	\$0.99	\$0.91	\$1.24	\$0.75
FCI	0.14	0.13	0.14	0.13

Deferred Maintenance Backlog removed: The demolition of Sanford Halls will remove 100% of its deferred maintenance backlog. Sanford Hall, which has 0.25 FCI, has \$1.19 million of backlog. The remodeling of Memorial Hall, which has a 0.17 FCI, will address plumbing and electrical issues along with exterior and interior finishes. The total backlog that will be removed is \$2.586M. The remodeling of Decker Hall will address HVAC and plumbing issues. The total backlog that will be removed is \$0.9M.

Rightsizing and Space Utilization Improvement: Current space utilization on campus is 63% while Decker Hall currently has a 73% utilization rate and Sanford Hall has a 20% utilization rate. This underutilization is being addressed in this project by the removal of ten classrooms from the campus thru the demolition of defunct and outdated facilities and renovating existing space into eight classrooms for a net decrease of two classrooms.

Energy efficiency and/or other Sustainability Improvements: Energy efficient fans, motors and lighting will be installed that are compatible with the existing mechanical and electrical systems and comply with the B-3

Guidelines. Materials will be chosen that minimize resource use and pollution, and meet B-3's guidelines for indoor environmental quality.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The net loss of square footage on campus as a result of demolition assures that the current infrastructure capacity is adequate for the service needs for this project.

Building Operations Expenses: Operating: \$3.80/square foot. The overall reduction to the university will be approximately \$65,000 annually. \$4,000/year to cover the small addition that is being done to Memorial Hall, will be more than offset by the demolition of the 17,000 square foot Sanford Hall.

Debt Service: After this project is fully funded, total annual debt service for BSU would be about \$1.4M, which is less than 2% of its annual operating budget. The institution's composite financial index has ranged from 2.3 to 2.7 the past three fiscal years.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

The business and accounting programs have grown consistently for each of the past ten years. The current building is a detriment to meeting current and future expectations of business and accounting students and has no space conducive to growing partnerships with business and industry. Maintaining current enrollment and continuing growth would become difficult without having an up-to-date facility. These programs are enrollment drivers for the university.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Lake Superior College - Allied Health (86' Wing) Revitalization renovation

2014 STATE APPROPRIATION REQUEST: \$5,266,000

AGENCY PROJECT PRIORITY: 5 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2010, Phase 1 New Science - \$12,098,000 (construction)

Project At A Glance:

- Reconfigure, remodel and renovate classrooms and labs in the Allied Health and Science programs
- Construction Document completed
- Renovation and Renewal of 41,000 GSF
- Number of classrooms/labs impacted: 23
- Eliminate \$2 million of deferred maintenance backlog
- Real on-the-job training and clinic patient experience on campus
- Increased capacity in classrooms and labs to accommodate students that are on the waiting list

PROJECT DESCRIPTION:

This project addresses the significant need to reconfigure, remodel and renovate the 1986 wing's classrooms and labs in the allied health, science and general classrooms to improve overall space utilization, maximize student teacher ratios, efficiency and sustainability, community services and facilities. The project focuses on updating outdated facilities and providing larger general classrooms to improve utilization ratios, remodeled modern laboratory and general use/support spaces to accommodate continued high enrollment in allied health programs at Lake Superior College.

Technology will be upgraded to meet 2014 educational standards, as well as to simulate current technology used within Allied Health and science facilities for realistic hands-on training for students. These improvements support the college's mission to "provide high quality, affordable higher education that benefits diverse learners, employers, and the community" and to "prepare learners for a rapidly changing global community."

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Provides state-of-the-art instructional labs, providing increased opportunities for individuals to participate in health programs; creates opportunities for hands-on training in Physical Therapist Assistant, Dental Hygiene, Massage Therapist, Nursing Assistant and Radiologic Technology. In order to meet the full range of student learning needs, new (and accessible) facilities are needed which make use of future-oriented learning spaces, state-of-the-art equipment and state of the art dental simulation lab.

All Dental Hygiene didactic, laboratory and clinic education is delivered 100% on-site at LSC. Remodeling plans include a Dental Hygiene simulation lab, which will be utilized in a majority of program courses. Simulation labs benefit students by providing immediate learning in a simulated situation, improving competency development of clinical skills.

The Nursing Assistant Program offers an excellent four credit certificate for students desiring a career in healthcare. Graduates have the opportunity for a lifelong career working in hospitals, nursing homes, and assisted living facilities or to use this as a stepping stone for furthering their education in other much needed healthcare careers. The Nursing Assistant Program provides this opportunity to over 400 students each year to move forward with a rewarding career in healthcare.

The Physical Therapist Assistant program currently lacks classroom space in the vicinity of the program lab. The current lab, which is outdated and undersized, serves as both a lab and operating clinic which provides physical therapy services for uninsured and underinsured community members. In addition to the Physical Therapist Assistant (PTA) degree, program faculty offer a very popular online PTA Refresher course for students preparing for board testing and a new online Military Bridge Program for military trained PTA's to complete their Physical Therapist Assistant AAS degree which is required in most states for completion of PTA boards.

The Radiologic Technology Program delivers imaging education for students from Minnesota, Northern Wisconsin and Northern Michigan. The program's current lab is outdated and lacking in adequate space for essential equipment required for educating today's needs, as imaging technology is

Lake Superior College - Allied Health (86' Wing) Revitalization renovation

rapidly changing requiring additional lab equipment. The current lab does not offer space for digital equipment which is now used in healthcare. The new lab will provide adequate space for the equipment required to educate highly qualified, experienced technologists needed in our community.

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

The renovation will meet the needs of the region’s workforce by supporting collaborations with health care partners and by offering community access to workforce education. Allied Health faculty will have expanded opportunities to work collaboratively with other colleges, universities, and high schools.

The Dental Hygiene program has a long history of successful, productive community partnerships. Examples include Head Start, CHUM, Lutheran Social Service, Community Dental Clinic, Minnesota Dental Association, Northeastern District Dental Society and the MN Dental Hygiene Association Component I. A new state of the art classroom and lab, along with the addition of a dental simulation lab would provide opportunity for offering continuing education programs which would benefit our partners, the college and community.

The Nursing Assistant Program has a long history working successfully with community partners. Currently, college and SOAR Career Solutions are accessing grant dollars to help low income, underemployed individuals participate in training programs at the college that lead to high demand, high wage jobs. We have worked with our healthcare employers in our region to identify workforce gaps that these training programs can help fill, including nursing assistants and trained medication administrators. Many of these students start out training in these entry level positions, but go on to further their education to become nurses, phlebotomists, radiological technicians, etc. These programs have led to a great partnership between the non-profit community, employer community and Lake Superior College.

The Physical Therapy program has provided much needed physical therapy services for community members since 1999, providing care during approximately 1000 patient visits each year. The new Military Bridge program currently offered for military trained PTA’s was developed after LSC’s PTA program director was approached by the American Physical

Therapy Association requesting that the college considers developing this program to meet this unmet need for all military trained PTA’s.

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

The renovation will provide updated state of the art classrooms and labs, with three of the renovated labs (Physical Therapist Assistant, Massage Therapist and Dental Hygiene) also serving as clinics offering much needed services for community members. The Physical Therapy Clinic is operated in partnership with the College of St. Scholastica (CSS) Physical Therapy Program. Both college Physical Therapist Assistant students and CSS Physical Therapy students will learn while providing patient care for community members in need of physical therapy services. Massage Therapist, Physical Therapist Assistant and Dental Hygiene program clinics provide double value with these updated spaces serving as both program labs and community clinics.

This project will improve utilization rates. Massage Therapy with a utilization rate of 138% will move to the area used by the Physical Therapy and Dental Clinics replacing the space that is being used by a program that is closing. The clinics will share a reception office, record storage room and waiting room. Labs and classrooms will be reconfigured creating fewer but larger spaces which will improve utilization.

Institution Master Plans and Regional Collaborations: This project is a follow up extension of the Health and Science project. The current teaching methodology in the new facility is not supported by the existing condition of the building and educational spaces. The intent of this project is to provide 21st Century learning environments across the existing program.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: This project is over 8 years old and was part of the original Health and Science project, but was separated as a “Phase Two” project prior to submittal to the Legislature. New construction was ruled out early due to cost and adjacency needs. Renewal of Science labs instead of relocating was not consistent with the master plan.

Campus Data:	2008	2009	2010	2011
FYE	3,419	3,549	3,679	3,675

Lake Superior College - Allied Health (86' Wing) Revitalization renovation

Headcount	12,447	12,742	12,864	13,088
Space Use %	108%	120%	87%	84%
R & R (per sq. ft.)	\$0.45	\$0.62	\$0.49	\$0.71
FCI	0.12	0.13	0.14	0.14

Deferred Maintenance Backlog removed: The affected areas of the building have an FCI of 0.01 and 0.03 with a backlog of almost \$7.6 million. In the next 2 years, this project would remove nearly \$1.2 million of backlogged repairs and anticipated maintenance from the system, and proactively correct another \$0.8 million on the list for upcoming years.

Rightsizing and Space Utilization Improvement: The utilization rates in Allied Health program rooms included in this project are low because they are not configured for current college needs. Moving the Massage Therapist classroom/lab, which has utilization at 138%, into the college clinics area will replace low utilization space currently occupied by a program which is in the process of phasing out. Dental Hygiene remodel will improve space utilization in the dental lab currently at 69% through reconfiguring to meet current program needs and to include a much needed dental simulation lab. Physical Therapist labs with utilization currently at 38% and 25% will also be reconfigured to improve utilization. Current Radiologic Technologist lab utilization at 68% is due to program significant clinical site experience requirements which limit lab usage for that program. In addition to addressing utilization concerns, this project will create new labs and classrooms that are suited for our growing health programs.

The lack of updated state of the art classrooms and labs for Physical Therapist Assistant, Dental Hygiene, Massage Therapist, Nursing Assistant and Radiologic Technology adversely affects these programs. The renovation of this space will provide not only a state of the art learning environment for our students, but will offer the same top quality environment for operating on-campus clinics. The Physical Therapy and Dental clinics offer care to uninsured and underinsured community members in need of these services, contributing to meeting healthcare needs in our community.

Energy efficiency and/or other Sustainability Improvements: Discussion and research during the Master Facilities Plan and the predesign study planning processes followed an integrated sustainable design approach that should embody the following strategies for this project:

- Renewal and remodel vs. construct new

- Maximizing sightlines to daylight
- Daylighting of spaces integrated with dimmable photo/occupancy sensing devices
- Recycled content building materials and finishes

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: This project is entirely an interior remodel and will not impact the utility infrastructure.

Building Operations Expenses: This project will increase the energy efficiency of the included rooms and lower overall operating costs.

- Operating: -\$0.53/SF and Total: - \$21,900
- Renewal spending @ \$1/SF: \$Total 0 Increase

Debt Service: Current debt service is \$344,520 net of appropriation and this project will add approximately \$60,000 to that amount.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

- Outdated learning facilities detrimental to meeting current and future Allied Health and science student learning needs
- Declining enrollment in Allied Health related programming
- Limited ability to meet Allied Health workforce needs
- Inability to improve area low space utilization issues through space reconfiguration provided with remodel
- Stagnant learning methods lacking emphasis in innovative technologies and the use of proper learning equipment
- Inefficient operating conditions relative to student/instructor ratio, space utilization and technology/educational capabilities
- Rising asset preservation costs and closure of obsolete spaces

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Minneapolis Community & Technical College - Workforce Program Phase 2 renovation

2014 STATE APPROPRIATION REQUEST: \$3,600,000

AGENCY PROJECT PRIORITY: 6 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012 Workforce Phase 1 - 13,389,000 (design and construction)

Project At A Glance

- Replace HVAC units to allow for better comfort in the existing classrooms
- Construction Document completed
- Renovation of 90,470 GSF
- Number of classroom/labs impacted: Campuswide
- Eliminate \$2.7 million of deferred maintenance backlog
- Improves STEM classrooms and will allow flexibility for changes
- Security will improve monitoring for College access points
- Reuse existing exterior material to be sustainable

PROJECT DESCRIPTION:

The project will provide air conditioning for the lower levels of the T Building and Bowman Hall.

The project also includes security system upgrades at the lower level access, repairs to the deteriorating T Building street level masonry planters, and rehabilitation to the receiving dock drive, walkway, drainage, and enclosing masonry walls.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Enhance learning environment is achieved with improved outside air delivery and increase overall human comfort indoors when humid atmospheric conditions persist outside.

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

The lower level of the T Building houses the construction trades and ceramics programs. Air conditioning will benefit the workforce programs that are consistently interrupted with the sound of overhead air handlers in the program spaces. The scope of air conditioning includes replacement of 35 year old air handler equipment and locating new units in mechanical rooms separated from program spaces.

PROJECT RATIONALE:

Reduce approximately \$2.7 million in backlog. This project includes the remaining infrastructure updates from the 2006 Predesign to complete the project.

Institution Master Plans and Regional Collaborations: The project is consistent with the Campus Master Facilities Plan’s intention to improve the instructional facilities targeting programs to enhance the quality of regional workforce and to reduce deferred maintenance backlog.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Collaboration with Metro-Alliance institutions in the development of baccalaureate degrees for registered nurses-- specifically with Anoka-Ramsey Community College and North Hennepin Community College.

The “Power of You” is a collaborative program between MCTC, Saint Paul College, and Metropolitan State University

Campus Data:	2008	2009	2010	2011
FYE	6252	6538	7405	7302
Headcount	12774	13417	14909	14571
Space Use %	118%	92%	92%	91%
R & R (per sq. ft.)	\$2.76	\$3.60	\$3.44	\$5.51
FCI	0.17	0.14	0.10	0.11

Deferred Maintenance Backlog removed: Approximately \$2.7 million.

Rightsizing and Space Utilization Improvement: The Workforce Phase 1 project created new labs for the Workforce Program, along with flexible classroom space. The Workforce Phase 2 project adds air conditioning, and

Minneapolis Community & Technical College - Workforce Program Phase 2 renovation

indoor air quality enhancements to the Workforce Program and Athletics spaces that are not funded as part of the Phase 1 project.

Energy efficiency and/or other Sustainability Improvements: Outdoor air supply will be delivered at higher levels with more energy efficiency. Motors, pumps and other equipment reduce energy consumption per supplied unit and have more sophisticated controls through the existing building automation system. The interior environment will have better comfort through the ability to reduce humidity in the below grade academic Workforce spaces.

Impact on Agency Operating Budgets**Capacity of Current Utility Infrastructure:**

New HVAC equipment that is part of this project will be delivered through existing service drive designed to accommodate heavy loads.

Building Operations Expenses:

- Maintenance and janitorial time is expected to remain the same because area is not increased. However a goal for the project is provide a readily maintainable environment to reduce demand on facility efforts.
- Electrical loads will have seasonal increase for additional air conditioning. Equipment and controls are to be selected for low energy consumption. Controls can optimize operating hour by monitoring demand to optimize energy usage.
- The campus can absorb small increases in operating expenses.

Operating: \$0.006/sq. ft. approximately \$10,000 annual increase in operating cost for additional cooling

OTHER CONSIDERATIONS:**Consequences of Delayed Funding**

- Outdated, 30 year old air handling units, will not be replaced.
- Lower level workforce labs and athletic space will remain un-air conditioned.
- Exterior planters will continue to deteriorate.
- Exterior service drive will continue to deteriorate.

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Saint Paul College - Initiatives

2014 STATE APPROPRIATION REQUEST: \$1,500,000

AGENCY PROJECT PRIORITY: 7 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Design, renovate, furnish, and equip space to meet workforce training needs
- Renovation of 3,800 GSF (Culinary Arts)
- Renovation of 23,750 GSF (Machine Tool Lab)
- Number of classrooms/labs impacted: 10
- Each project cost is \$750,000 and a construction schedule of less than 18 months
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Culinary Arts: The current condition of the culinary arts space limits program expansion and prevents flexible use. The project seeks to renovate 3,800 SF of classroom and kitchen space used by the Culinary Program for \$750,000. The project would renovate and update the existing classroom and kitchen to provide a state-of-the-art culinary experience for students and the flexibility to provide short-term training for multiple community stakeholders. The area consists of three rooms built in 1966 to accommodate much smaller class sizes. The renovation project would lay out the rooms into a more efficient and useable space that will safely accommodate larger classes. The current exhaust system cited by the Fire Department does not meet fire code and now limits the type of food preparation methods that can be taught in the curriculum. The new exhaust system will meet fire code. Lastly, the project will purchase new kitchen equipment to improve energy usage.

CNC/Machine Tool: The program has experienced significant enrollment growth (116% growth from 2005 to 2012) from 49 FYE in 2005 to 105 FYE in 2012 due to changing workforce development needs. Currently, the CNC/Machine Tool program operates in three separate physical spaces and,

therefore, is unable to take full advantage of shared equipment. Further, the growth in employment opportunities in the manufacturing sector requires program expansion, including the introduction of an Automation and Flexible Manufacturing curriculum. The project will create a new Automation and Flexible Manufacturing Lab for an expansion of the curriculum designed to meet workforce development needs in the manufacturing industry based on information from statewide listening sessions which stressed the need for more hands-on skills in production facilities.

The project will renovate 12,973 SF and renew 10,777 SF of existing space used by the CNC/Machine Tool and Sheet Metal Programs to consolidate the three separate CNC/Machine Tool labs into adjacent spaces to be used in the CNC/Machine Tool Program and new Automation and Flexible Manufacturing programs. The Sheet Metal Program would be moved from Room L320 to L140/L105. The CNC/Machine Tool Lab would be moved from Rooms L140/L105 to Room L320, thus switching the locations of these two programs. Consolidation of the three programs into the same right-sized, flexible space would improve the degree to which current spaces are used, increase space utilization to 100%, increase academic and space efficiency, and reduce costs.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Culinary Arts: The program is one of the largest career/technical education programs at Saint Paul College and in the Twin Cities. The program's enrollment has increased from 92 FYE in 2006 to 147 FYE in 2012, a 37% increase over seven years. The program provides occupational training for individuals with diverse backgrounds and educational goals. The program offers a variety of award options from a Baking Certificate to a Short Order Cooking Certificate to a Diploma or A.A.S. Degree. Even with current economic uncertainties, faculty members receive postings for jobs throughout the metropolitan area. The program seeks to expand into more organic and sustainable coursework and develop new program awards. Having a well- designed kitchen with demonstration visibility will permit expanded offerings that will focus on current food trends. The project will provide professional, safe and student-friendly space reflective of culinary

Saint Paul College - Initiatives

industry standards. The renovation plan is to increase opportunities for potential students to complete culinary arts awards which focus on new career opportunities in the food industry. Renovating classroom and kitchen space in the culinary arts program will meet growing demand for affordable culinary arts academic programs, build upon the extraordinary education already being delivered to current culinary arts students, and provide facilities aligned with current industry standards. The renovation could potentially increase the capacity of the classroom from 32 students to 40 students.

CNC/Machine Tool: Provides access to an extraordinary education for all Minnesotans, as evidenced by the strong growing demand for the program. Over the past eight years, the program's enrollment has grown by 116%, from 49 FYE in 2005 to 105 FYE in FY2012. The program offers an Associate of Applied Science (A.A.S.) in Manufacturing Technology, a CNC/Tool Making Diploma, a Machine Operators Certificate, and an on-line Machine Technology Certificate through the 360° Center for Excellence Multi-Institutional program. The Saint Paul College Machine Tool program is a charter member of the 360° Center for Excellence and has pioneered online machine tool and CNC machine training for placement across the state, region and nation. These programs provide in-house and distance delivery, as well as basic and advanced machine technology training to a diverse population in the Twin Cities metropolitan area and throughout Minnesota. The consolidation of the CNC/Machine Tool laboratories into a single continuous machine tool area will increase and expand space utilization as the program grows to accommodate additional extraordinary instruction in new afternoon, evening and weekend sections.

Be the partner of choice to meet Minnesota's workforce and community needs:

Culinary Arts: The program continues to demonstrate strong and sustained demand for employment that aligns with workforce needs. By 2020, the Minnesota Department of Economic and Employment Development currently projects 8.1% employment growth for food preparation services in all of Minnesota and 9.1% employment growth for food preparation services in the seven county Twin Cities metropolitan area. In order to meet the workforce demands of the labor market, the Culinary Arts Program must provide adequate facilities to retain students so they can successfully complete the program. Students in the first semester basics kitchen do not currently have the ability to learn in a facility that meets industry standards and

expectations. Renovating the first semester basics kitchen would provide students in the Saint Paul College Culinary Arts Program the opportunity to fully engage in a modern kitchen learning experience.

CNC/Machine Tool: By 2019, the Minnesota Department of Economic and Employment Development (DEED) currently projects 14% employment growth for operating engineers in the Twin Cities metropolitan area with a living wage annual salary of \$60,127. The program has focused on state-of-the-art training, enjoys full state-wide industry support, and houses the Haas Machining Center. The renovation is needed to support the expansion of this instructional program to include a new Automation and Flexible Manufacturing curriculum, as well as Saint Paul College's Manufacturing Technology afternoon and evening programs. The renovation will help expand training opportunities for students from 24 to 48 FYE. Further, students in the CNC/Machine Tool Program will have expanded opportunities that include new Automation and Flexible Manufacturing laboratories, improved grinding laboratories, CNC/Solid Works/Pro E programming laboratories, rapid prototyping and inspection laboratories, and steel storage areas. These areas are currently restricted in size, dispersed throughout the machining areas, and share space with the grinding room exhaust system. The fragmented and crowded areas are insufficient to accommodate the increased enrollment while posing a safety hazard to students and faculty.

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

Culinary Arts: The project will allow the Culinary Arts Program to attract more students, thereby increasing its enrollment and increasing the financial viability of the program during these changing and challenging economic and market conditions. The project demonstrates an investment in existing facilities that will help preserve and protect the current facilities. Modern Energy Star appliances will be used to reduce operating costs. As a renovation, the project fully maximizes the efficient use of existing space on campus. Further, the project seeks to create flexible space with greater capacity for changes in program utilization by creating a space that could be used for both the first semester basics kitchen and as a demonstration kitchen for workforce development training and continuing education. Demonstration kitchens are also used by corporations for leadership and team-building.

Saint Paul College - Initiatives

The overall project cost is reasonable given that the Culinary Arts Program is a capital intensive program to operate. The project cost is \$130/square foot. Saint Paul College has also invested local funds in R&R, with a three year average from 2009-2011 of \$1.84 per square foot. The Culinary Arts Program renovation will not create new or additional utility or support infrastructure. The project is financially viability from a CFI perspective. The college would take on approximately \$21,000 in debt and interest payments each year. Resource savings will accrue due to an investment in Energy Star appliances that reduce utility costs. The project will reduce the deferred maintenance backlog and FCI by replacing air handler units, equipment exhaust hoods, lighting, electrical, and plumbing of approximately 3,800 square feet of space.

CNC/Machine Tool: The project will consolidate the CNC/Machine Tool Program into a more compact, efficient space with higher density than the existing space. The project will allow the CNC/Machine Tool program to expand its enrollment by 16 FYE, thereby increasing the financial viability of the program during changing and challenging economic and market conditions. Existing spaces would be right-sized, thereby increasing the degree to which current spaces are used most efficiently.

Institution Master Plans and Regional Collaborations: The project supports priorities of the Master Academic Plan goal to provide seamless, comprehensive learning opportunities for diverse, life-long learners.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Saint Paul College is partnering with the nascent Friends of Saint Paul College Foundation to collaborate with community and corporate foundations for fundraising purposes. The culinary arts program partners with local restaurants to place students, which is another factor related to the program’s increasing enrollment from 92 FYE in 2006 to 147 FYE in 2012. This increasing enrollment trend has generated more tuition revenue to support the mission of the program and College. The CNC/Machine Tool Program partners with local manufacturing businesses to place students, thereby increasing enrollment, retention and workforce placement and increasing tuition generated revenue to support the mission of the College.

Campus Data:	2008	2009	2010	2011
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FYE	3,499	3,785	4,562	4,590
Headcount	8,013	8,731	9,625	9,558
Space Use %	132	99	93	83
R & R (<i>per sq. ft.</i>)	\$2.18	\$1.59	\$2.59	\$1.34
FCI	0.18	0.07	0.09	0.09

Energy efficiency and/or other Sustainability Improvements: The project renovation would install more efficient exhaust and air handling units, and would also eliminate standing pilot lights on equipment. Energy Star appliances will also be purchased to reduce energy costs.

Impact on Agency Operating Budgets:

Capacity of Current Utility Infrastructure: The capacity of the current utility infrastructure is sufficient to include changes to the renovated area.

Building Operations Expenses: The renovation will result in no additional operating expenses. In fact, Energy Star appliances and a more efficiency exhaust system will be used to reduce operating costs.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding: The Culinary Arts Program will continue to operate in an overcrowded, poorly equipped space that does not meet industry standards or fire code. Furthermore, the future training needs of Saint Paul College’s Culinary Arts Program students will remain unmet with insufficiently updated classroom and laboratory space. Third, the culinary arts program has lost potential students due to the condition of the facility and overcrowded space. The CNC/Machine Tool Program will continue to operate with poor space utilization. Further, growing student demand and the changing training needs of the Minnesota manufacturing industry will remain unmet.

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Minnesota State College-Southeast Technical-Initiatives

2014 STATE APPROPRIATION REQUEST: \$1,700,000

AGENCY PROJECT PRIORITY: 8 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Design, renovate, furnish, & equip space to meet workforce training needs
- Red Wing Campus:
 - Renovation of 3,000 GSF (Classrooms)
- Winona Campus:
 - Renovation of 4,000 GSF (Medical/Phlebotomy Labs)
 - Renovation of 7,250 GSF (Welding/Mechatronics Labs)
 - Eliminate annual lease expenses and programs return to campus
- Each project cost will be between \$450,000 and 750,000, and a construction schedule of less than 18 months
- Number of classrooms/labs impacted: 4
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Classroom: Renovates and repurposes 3,000 sq. ft. of carpentry lab space on Red Wing Campus. Space was formerly used by carpentry program that has been suspended on the Red Wing Campus due to extremely low demand. The project will modernize 20 year old lab space into multi-purpose smart classrooms, converts storage space into needed high tech classroom space with no additional sq. footage, and provide flexibility of multi-use space that will serve all academic programs of the college.

Medical: Renovates and repurposes 4,000 sq. ft. of lab space on Winona campus. Space vacated by auto tech and auto body programs will make room for health care lab space primarily for the new Medical Lab Technician program and Phlebotomy Lab Technician program. The project will modernize 40 year old instructional space to emulate industry standards and models, create a science lab dedicated to Allied health areas that would

enhance the STEM initiative. Lab would be located adjacent to Allied health wing increasing accessibility and would also support chemistry, biology, anatomy, physiology and microbiology resulting in improved space utilization.

Welding: Renovates and repurposes 7,250 sq. ft. of lab space on Winona main campus. Space vacated by auto tech and auto body programs will make room for Welding and Mechatronics programs to return from former airport campus. The project will relocate Welding and Mechatronics programs from leased space at former airport campus to main campus to provide students with better access to services and create efficiencies by ending duplication of services required by additional sites.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Classroom: Repurpose former carpentry lab space into multi-purpose, smart classrooms. Current space is being used for storage and not contributing to current classroom or lab space utilization. Multi-purpose complex of classrooms would allow for virtual and simulated lab space for students to work collaboratively on Environmental Science, Surveys of Chemistry and Beginning Physics, and all course work that specifically contribute to expanding academic offerings in the Science, Technology, Engineering and Math (STEM) areas. This would increase capacity in each of these areas. It would give foundational hands on skills and knowledge for students already "Science Challenged". Students would be able to work on projects collaboratively and cooperatively to approach real-world problems.

Medical: Provides lab space for two new health care career fields (Medical Lab Technician (AAS) and Phlebotomy Lab Technician) in space previously occupied by Auto Tech. This will meet the educational training needs of students and employers in these fields. According to the US Bureau of Labor statistics; employment in these two fields is expected to grow 16% from 2009 to 2019. The number of job opportunities is expected to outnumber the number of qualified applicants especially in rural Minnesota areas. These programs provide access to students who were interested in healthcare, but could not meet the demanding academics required in the registered nursing program. We are currently preparing an articulation agreement with Winona

Minnesota State College-Southeast Technical-Initiatives

State University allowing for transfer into their baccalaureate program (Medical Lab Technologist). Current science lab houses several sections of chemistry, biology, anatomy, physiology and microbiology. Each lab would provide 12 additional seats for students for a total of 24 and would also supplement the one current science lab.

Welding: By realigning current Industrial Technology (Maintenance) program to incorporate Mechatronics principles, and the expansion of Welding program enrollments, the college will be responding directly to issues and themes expressed by the Chancellor's "Meeting Minnesota's Workforce Needs Workforce Assessments" meetings. Demand for welding program graduates is predicted to remain strong well into the future, hence the need to expand enrollment opportunities for individuals seeking to train for a new occupational opportunity. The intended modification of our existing Industrial Technology (Maintenance) program offering to a Mechatronics emphasis is in response to the continued transitioning of local/regional manufacturers to the inclusion of programmable logic controllers and robotics technologies into their manufacturing/production processes. Mechatronics programming will offer students the opportunity to articulate with other MnSCU institutions offering high-end, engineering-related baccalaureate program offerings. Southeast Technical has continued to place students on "waiting lists" for its Welding program each of the past three academic years, due to limited program capacity as a result of space and instructional equipment limitations. This change will increase student capacity by a minimum of 20% enhancing access.

Be the partner of choice to meet Minnesota's workforce and community needs:

Classrooms: Custom Training/Continuing Education continues to provide customized training in the area of supervisory management to individuals employed by a local casino. In addition, campus will be offering an Introduction to Gaming certification for blackjack dealing through the Continuing Education department. Students will not only learn the proper procedures in which to deal the game, but also how to best manage the casino environment, both mentally and physically. The space created to support the Introduction to Gaming certification will also be available for scheduling necessary to accommodate expanded STEM offerings. Selected STEM offerings will target MN Transfer opportunities for students desiring a

more economical option for fulfilling baccalaureate program requirements at MnSCU institutions.

Medical: Employment of medical lab technicians is expected to grow 16% from 2009 to 2019, which is much faster than the average of other health occupations. The need is even greater in rural areas and smaller communities for qualified medical lab technicians. Allied health programs continually support and enhance the STEM initiative as the student core is Science, Technology and Math. Retention and completion will be increased with these additional allied health options which create an alternative health care career opportunity to nursing. Articulation agreement with Winona State University will allow for transfer between institutions. Clinical sites will be available at local hospitals and clinics for student training.

Welding: Projections for welders in Southeast Minnesota, according to Minnesota Labor Market Information, for the period 2009-2019 continues to show steady employment possibilities for Welding program graduates. A work force grant is supporting this training with \$10,000 for program development, \$4,600 for equipment, and \$4,500 in supplies and students tools. The intention of SE Technical is to transition its current Industrial Technology (Maintenance) program to a Mechatronics program offering. Mechatronics is evolving to include the development of micro-, meso-, nano- and bio-mechatronic systems which interface with and control physical, chemical, biological and neurological processes. Southeast Minnesota has an opportunity to incorporate the development of mechatronics educational initiatives in the region and to lead the area by integrating related industry, education, workforce and economic development initiatives related to mechatronics.

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

Classroom: The project creates 4 multi-purpose classrooms with flexibility for future program change with little or no cost. No new space is added, as this project repurposes existing high bay space to classroom space. This project provides the ability to serve more students per sq. ft. by providing multi-purpose high-tech classroom space which will contribute to a stronger CFI. The change allows for support of multiple programs of the college within the same footprint formerly dedicated to one program.

Minnesota State College-Southeast Technical-Initiatives

Medical: Retrofits former auto tech lab space into health care lab space on Winona main campus for Medical Lab Technician and Phlebotomy Lab Technician programs. New lab space will support all allied health programs due to flexibility of design and relationship of programs. The 2 programs listed in this proposal anticipate an additional 24 FYE’s that will generate new revenue helping to maintain and improve our financial position in the future.

Welding: The project provides lab space for Welding and Industrial Technology programs currently housed at the former airport campus. Administrative and academic support costs will be reduced by ending duplication of services currently required due to two campus locations. Retrofitted space on main campus will also be used for Welding, Mechatronics and Fiber Optic programs. The move to the main campus will allow more efficiency in scheduling and higher space utilization due to sharing of lab space. New lab space will support all 3 programs due to flexibility of design and relationship of programs. Project is supported with \$200,000 of Equipment from a privately owned business (HBC) in support of the new Fiber Optics program. The 3 programs listed in this proposal anticipate an additional 42 FYE’s that will generate new revenue helping to maintain and improve our financial position in the future.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Red Wing campus is currently partnering with Treasure Island Resort and Casino who is providing equipment to do training for their employees in the proposed area. Winona campus has received \$20,000 in training funds from regional workforce center to help in program development and equipment, \$12,000 in matching equipment dollars from MnSCU for program equipment, \$200,000 in equipment from private business, and Federal Title III grant supports Medical and Phlebotomy programs with equipment dollars in excess of \$300,000.

Campus Data:	2008	2009	2010	2011
FYE	1552	1660	1988	1985
Headcount	2581	3062	3433	3327
Space Use %	73%	72%	83%	83%
R & R (<i>per sq. ft.</i>)	\$0.60	\$0.50	\$0.57	\$0.67
FCI	0.11	0.12	0.15	0.07

Rightsizing and Space Utilization Improvement: Red Wing repurposed space will create classrooms from storage space without increasing overall footprint of campus. Classrooms will be multi-purpose allowing for higher space utilization. Winona repurposed space on main campus will be used for Welding, Mechatronics and Fiber Optic programs. This will allow higher space utilization due to sharing of lab space. New lab space will support all 3 programs due to flexibility of design and relationship of programs.

Energy efficiency and/or other Sustainability Improvements: Program spaces are remodeled within the existing building area supporting reuse of building structure and creating more efficient use of spaces. Space that was underutilized will be in full service. Within each remodeled space energy efficiency is improved by converting high bay space to classroom space to include lighting that will meet or exceed B3 guidelines.

Impact on Agency Operating Budgets:

Capacity of Current Utility Infrastructure: The existing utility infrastructure is adequately sized to support this project.

Building Operations Expenses: Upon completion of the project college anticipates a reduction in overall utility cost due to replacement of high bay space by more efficient classroom space. Project will save \$75,000 annually in lease cost.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding:

- Limit MSC-ST’s efforts at improving space utilization through rightsizing storage space to accommodate multiple programs.
- Limit MSC-ST’s ability to provide updated high tech classrooms to provide access for STEM programs.
- Limit MSC-ST’s ability to address deferred maintenance backlog.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Central Lakes College, Staples - Campus Rightsizing renovation

2014 STATE APPROPRIATION REQUEST: \$4,581,000

AGENCY PROJECT PRIORITY: 9 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project at a Glance:

- Renovate core student service functions
- Create a consolidated Learning Commons
- Renovation and Renewal of 64,330 GSF
- Demolition of 17,810 GSF (mothball space)
- 'One-stop service center' for core service functions
- Number of classrooms/labs impacted: 14
- Reduced the backlog by 30%
- Facility energy systems to include solar and other alternative energy

PROJECT DESCRIPTION:

Right-size, reconfigure, renovate, and renew the main campus to improve overall space utilization, efficiency and sustainability/expansion of academic programs, services and facilities. This project will:

- Reconfigure and right-size critical portions of core service functions to provide more efficient and user friendly service, including relocating the Library and Computer Commons to Student Services area to create a consolidated Learning Commons.
- Enhance the building's main entrance; renew dining commons, shop areas and main corridors throughout the facility.
- Upgrade facility energy systems to include photovoltaic solar panels and energy efficient windows and doors. Working examples of alternative energy systems will be installed throughout the campus and used for alternative energy maintenance/service instruction and to demonstrate CLC's commitment to a more sustainable campus.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Robotics and Machine Tool technology programs at the Staples Campus are known throughout the Midwest – in fact a 3M plant and two other manufacturers set up facilities in the Staples area specifically to tap into our highly-trained graduates. Our relationships with our regional industry partners have always been strong, and CLC was instrumental in the formation of a new manufacturer alliance in the Brainerd Lakes area. So, when recent discussion at MNSCU regional manufacturing workforce meetings centered on concern about the ability to fill advanced manufacturing technician positions they need to grow, CLC listened and responded.

Plans are to add an additional twenty-two student cohort in the Machine Tool program for fall 2013, plus two new programs in Plastics Technology and Rapid Prototyping/Reverse Engineering. A new manufacturing FastTRAC/iBEST collaboration with our Workforce Investment Board, Adult Basic Education and the local manufacturer alliance is already drawing new adults into pre-manufacturing programming, and our new \$13.1 million Regional Advanced Manufacturing Retraining grant (discussed below) will strongly increase our reach in this underserved group.

Education and career exploration efforts aimed at youth are also shaping our Staples Campus. A strong and growing youth career development effort through our Bridges Career Academies and Workplace Connection organization and our collaboration in a new career and technically-focused charter high school to be located on our Staples Campus is aimed at increasing youth access to the high-pay, high-demand career programs that we offer. The impact of these efforts is already being felt – at a time where overall college enrollment is falling in many areas of the state our Staples Campus enrollment has increased by approximately 3% this fall. All of these efforts are made all the more critical because our Staples Campus lies directly between two counties – Todd and Wadena – that have very low income levels and college participation rates.

Be the partner of choice to meet Minnesota's workforce and community needs:

Currently Crow Wing, Morrison, Todd and Wadena counties are in the lower third of the state in per capita personal income. Crow Wing County is ranked

Central Lakes College, Staples - Campus Rightsizing renovation

71st and Todd County is 84th in the rankings. The four counties noted previously plus Cass County, rank in the third of highest poverty levels with Crow Wing at 12.3% (29th highest) to Todd County at 16.9% (5th highest). The counties have higher percentages of individuals 25 and older with no high school diploma—Minnesota's percentage is 8.7%--the five county average is 11.8%. The counties have lower percentages of individuals 25 and older with bachelor degrees or higher—Minnesota's percentage is 31.4%--the five county average is 16.7%.

This project is closely tied to important economic and workforce development initiatives. CLC is a partner with the local school district and Staples community in creating Connections High School, a new career and technical-focused charter school scheduled to open in fall of 2013. Connections, which is planned to be housed on the main level of the Staples Campus, is meant to fill the void left by the marked decline in career and technical course offerings in local rural school districts. The charter school will provide ninth through twelfth graders with beginning-level career and technical offerings as well as Math, English and Science offerings that are, as much as possible, linked to the career and technical theme by providing contextualized education in those areas. Connections High School students would be prepared to enter post-secondary enrollment classes in a career and technical program at Central Lakes or other area colleges during their junior or senior year of high school. Graduates of Connections would be available to meet the growing workforce needs in critical areas such as nurses, machinists, welders, mechanics and many more.

CLC is also expanding the manufacturing offerings at our Staples Campus through two new programs recently funded by a Department of Labor Trade Adjustment Assistance Community College Grant. The grant adds two new programs in plastics and rapid prototyping as well as the addition of student support staff (8-12 FTE) that will focus on students entering all manufacturing related programs. The general campus enhancements to the common, student services and shop areas will help accommodate the changes the grant will bring to our college. In addition, this project will assist CLC in the growth and expansion of alternative energy programming and innovation through our Agricultural and Energy Center.

As mentioned above, the partnership with Connections High School located on our campus will create a pipeline of up to ninety-five local students

interested in career and technical education that will likely graduate from high school with part or all of a career/technical program already completed. This accelerated approach is designed to help increase student completion rates and meet the regional needs for employees in key high-pay, high-demand careers. The addition of two advanced manufacturing programs and the expansion of the Practical Nursing and Diesel Mechanics programs will also increase the number of graduates entering the workforce.

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

CLC will increase the number of students in the advanced manufacturing, nursing, diesel mechanics and energy based academic offerings; expand the number of energy related courses to area high schools participating in College in the Schools and the Bridges Academy and Workplace Connections programs.

CLC is pursuing a Learning Commons concept for student services which would provide a single point of contact for all core student services functions (Admissions, Advising, Records, Financial Aid, Disability Services and Counseling) in addition to the Library and Computer Commons. Our current design does not include an easily identifiable reception area for students and guests to seek assistance.

We intend to replicate, on the Staples campus, the service model recently implemented through reorganization on our Brainerd campus. This model includes a central point of reception and highly trained advisors who are equipped to answer 85% of students' most frequently asked questions about financial aid, admissions and academic advising. We have already seen over a 300% increase in the number of students accessing advising services at the Brainerd Campus.

Through the Connections High School's collaborative arrangement with Central Lakes College and the local school district, students will have the opportunity to graduate from high school with a diploma or degree already completed under the post-secondary enrollment options program. This will save each student thousands of dollars in tuition, books and fees and prepare them for earlier entry into the workforce in high-demand fields.

Central Lakes College, Staples - Campus Rightsizing renovation

CLC will be demolishing the southeast Diesel shop to right-size the Staples Campus with the student enrollment, and to reduce the deferred maintenance and backlog for the campus. This section of the building is the oldest part of the building and needs significant infrastructure upgrades.

Institution Master Plans and Regional Collaborations: CLC’s Facility Master Plan identifies the under-utilization of the Staples Campus and focuses on increasing programming at the Staples Campus. The Student Services needs identified in this project are the highest priorities as identified in CLC’s Facility Master Plan. In addition, the planning and programming for Student Services is reflected in the Academic & Student Affairs Master Plans.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: CLC will be utilizing lease income from the Charter School lease in addition to the Federal Department of Labor program to assist with updating the Staples Campus to meet the equipment and technology needs of the new academic programs.

Campus Data:	2008	2009	2010	2011
FYE	335	389	453	404
Headcount	483	552	613	605
Space Use %	55%	59%	50%	51%
R & R (per sq. ft.)	\$0.40	\$0.92	\$0.86	\$1.00
FCI	0.07	0.18	0.08	0.08

Deferred Maintenance Backlog removed: The Staples Campus deferred maintenance backlog is \$8.104 million. The FCI for the Staples 1972 building will drop from .20 to .14 and the 1984 building will drop from .07 to .06.

Rightsizing and Space Utilization Improvement: We are negotiating a long-term lease with Connections Charter School that will utilize a portion of the Staples Campus for classroom, lab, shop and office purposes. We have added a second section of Diesel Mechanics (24 students), are expanding our Practical Nursing program (50 students), are adding 2 new Advanced Manufacturing Programs (56 students in second year), and have further lease partners in the pipeline to utilize our Staples Campus facility. This

project also demolishes 17,810 square feet on the Staples Campus due to the re-location of one of the Diesel Shops to an unassigned shop.

Energy efficiency and/or other Sustainability Improvements: Working alternative energy systems including biomass, small wind, solar and photovoltaic solar plus energy efficient windows and doors will be installed. CLC’s commitment to a sustainable campus provides on-site, real time facility applications for alternative energy instruction in efficiency, auditing, maintenance and service for alternative energy options in Central Minnesota.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The existing infrastructure at the Staples Campus is adequate to support the remodeling efforts.

Building Operations Expenses: The operational costs of the Staples Campus will remain relatively level or be reduced slightly if we are able to reduce the campus footprint through an external lease, demolition, or due to facility improvements that will improve our efficiency.

- Operating: \$1.92/SF and \$466,874 Total for Staples Campus
- Renewal spending @ \$1/SF: \$Total \$242,546 at \$1.00 per sq. ft.

Debt Service: Debt Service-Current-Jan 2012 is \$656,086 & Projected Debt Service with Added Project-January 2016 with new debt service is \$456,634. New debt service amount is \$181,773 in first year of completed project, but CLC would actually see a decrease in overall debt service.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding: CLC will continue to have lower space utilization and inefficient operations for our students and the general public, in addition to CLC’s operating costs being high based on student enrollment for the Staples Campus.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Kari Christiansen, VP Admin Services, 501 West College Drive, Brainerd, MN 56401 218-855-8060 phone, 218-855-8057 fax, kchristi@clcmn.edu

Minnesota State University, Mankato-Clinical Sciences Facility new construction

2014 STATE APPROPRIATION REQUEST: \$25,818,000

AGENCY PROJECT PRIORITY: 10 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, Clinical Sciences Facility - \$2,065,000 (design)

Project At A Glance:

- To centralize three major departments, three clinics and two labs into one facility to create a comprehensive and multidisciplinary team approach for learning and patient care
- Renovation and Renewal of 21,775 GSF
- New construction of 55,717 GSF
- Number of classroom/labs impacted: 59
- FY2016 request of \$4.4 million for the renovations
- Eliminate \$2.7 million of deferred maintenance backlog
- Allow nursing students to complete internship requirements on-campus

PROJECT DESCRIPTION:

Design the 55,717 SF Clinical Sciences facility and renovate 21,775 SF of existing space that will result in collocating three major departments (Nursing, Dental Hygiene and Speech, Language and Hearing), three clinics (Dental Hygiene, Nutrition Assessment, Speech, Language and Hearing) and two labs (Performance Enhancement and Simulation) into one facility and creates a comprehensive and multidisciplinary team approach for learning and patient care. The facility includes 24 labs and classrooms; 35 treatment, exam, observation or clinic spaces; 3 student/faculty interactive spaces; and 24 offices and smaller support spaces. Existing programs are housed in 16,326 assignable square feet (ASF) with the proposed facility providing 31,112 ASF. The 14,786 ASF increase is primarily due to new spaces that currently do not exist (7,040 ASF of classrooms, 717 ASF for an Advising Center, 1,400 ASF for a Simulation Center, 450 ASF for a Holistic Center, and 2,218 ASF for Clinical Administration space).

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The construction of the new facility with simulation labs on campus will for the first time allow nursing student to complete a portion of their internship requirements on-campus. The MSU, Mankato Dental Hygiene and South Central College Dental Assisting programs have a cooperative need for dental clinic and simulation lab equipment. Students of both programs will utilize the new technology and expansion of patient stations in the completion of their program requirements.

Be the partner of choice to meet Minnesota's workforce and community needs:

The new facilities and teaching technology will facilitate the education of more than 500 health care workers including nurses, dental hygienists, dietitians and speech pathologists. Our Dental Clinic collaborates with the South Central College Dental Assisting Program by providing total clinic access every morning for 25 SCC students and provides office space for 2 SCC faculty. Co-located clinics and simulations labs and greatly improved ease of client access will help expand the client base and increase research and grant production.

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

- The existing clinics and labs currently provide health services for about 8,000 underserved and economically disadvantaged individuals in southern Minnesota and helps to generate about 375 total clinical credit hours and 5,000 student credit hours. When this addition is coupled with the efficiencies of operating many of the other clinics on campus, we are conservatively estimating an ability to increase credit hours to about 7,500 which in turn, results in providing health services to more patients.
- The American Speech, Language and Hearing Association require students to complete 400 clock hours of clinical practice. Limited clinical capacity forces students to off-campus clinics during internships and typically must continue their internships beyond the scheduled period. With additional on-campus clinic space, more clients will be served which in turn generates more clock hours for students.
- The Dental Hygiene Clinic provides regional support for community outreach programs like the Open Door Health Center, Waseca Federal Prison, Park Dental, Senior Outreach Clinics at Hillcrest Health Care

Minnesota State University, Mankato-Clinical Sciences Facility new construction

Center in Mankato and Lutheran Memorial Home in Madelia, Harry Meyering Center and Head Start which cumulatively generates about 900 total student credit hours and serves about 3,500 underserved patients which could double with the new programmed clinical space.

PROJECT RATIONALE:

As of June 2008, the healthcare industry had the most job vacancies in Minnesota (8,661) counting for 17% of all vacancies. This industry is responsible for more Minnesota jobs than any other sector of the economy. Registered nurses account for almost 24% of the vacancies (2,237). Growth in healthcare careers is projected to remain strong for the perceivable future. New jobs for registered nurses are expected to increase by 581,500, an employment growth rate of 22%, much faster than the average for all occupations. Dietitians and nutritionists are expected to have 576 new and replacement jobs by 2017 which is an increase of 39% from 2007; similar expectations hold true for dental hygienists.

In response to this dire need, the College of Allied Health and Nursing has experienced enrollment and credit-hour growth during the past 10 years of 25%. Much of this growth has been an increasing number of applications to the Family Nurse Practitioner Program. Although only 5% of registered nurses were employed as nurse practitioners in 2008, this number is expected to grow rapidly due to changes from the recent health care reform bill. A clinical science building where nurse practitioner students could see clients as part of their clinical hours would begin to remedy the current challenge of placing students in clinical sites that are overwhelmed with requests from other Schools of Nursing. A single Clinical Science facility fosters interdisciplinary and collaborative efforts, sharing of resources and unifying clinical settings. All departments have a clinical component in their curriculum and an interdisciplinary approach becomes even more critical as it promotes "side-by-side" training that our graduates would encounter when they enter the workforce. The School of Nursing has renovated their current laboratory area twice during the past two years in an effort to create space for newly acquired simulation equipment. This space is still limited considering the numbers of clinical groups adopting simulation pedagogy for teaching portions of the clinical courses. This curricular change is a direct result of affiliated clinical agencies inability to accommodate requests and other Schools of Nursing due to the increased numbers of associate degree and private schools emerging in the state. Also, our five on-campus clinics

and labs and four off-campus clinics serve about 8,000 clients; by co-locating three clinics in a single, larger facility, we would expect to expand the number of participants by an estimated 5,000 clients and generate a corresponding increase in revenue to help offset our cost of operation.

Classroom availability continues to be a problem. Typically, classrooms are scheduled for 45 hours per week; however, CAHN classrooms for Nursing, Communication Disorders, Dental Hygiene, Athletic Training Dietetics, and Exercise Science are scheduled 32 hours per week for several reasons. Clinical and labs are normally scheduled in 3 or 4 hour blocks on one-day or 75-minute blocks twice weekly (e.g., from 2-5 PM, Monday thru Thursday and all day on Friday instead of the usual 8 AM – 9 PM). When these lengthy labs are coupled with three other competing needs: the need for classrooms to have lab-specific equipment, the need for rooms meeting clinical accreditation standards and the need to recognize the substantial student drive time between on-and off-campus labs, it becomes impossible to schedule rooms 45 hours a week. Clearly, increasing the number of labs that are located in a single facility, and which are appropriately sized with state-of-the-art equipment, will allow scheduling of classes using a traditional 45-hour/week schedule and dramatically increase the classroom availability.

Institution Master Plans and Regional Collaborations:

- A Clinical Science facility was included in the 2009 Master Plan update. Provisions for central utility extensions (steam, chilled water, electrical and domestic water/sewer) for this facility have been accounted for and capacity reserved for the added load on these services the building will have.
- Expand community partnership programs like Communication Disorders, Community Health, Dental Hygiene, Family Consumer Science (Dietetics).
- Possible training collaboration with local health care companies with new high tech and realistic simulation labs.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The Dental Hygiene program at MSU Mankato partners with Dental Assisting program at South Central College in North Mankato. Our Dental Clinic collaborates with the South Central College Dental Assisting Program by providing total clinic access every morning for 25 SCC students and provides office space for 2 SCC faculty.

Minnesota State University, Mankato-Clinical Sciences Facility new construction

Campus Data:	2008	2009	2010	2011
FYE	13,624	13,773	13,933	14,388
Headcount	14,621	14,955	15,408	15,703
Space Use %	114%	112%	104%	101%
R & R (<i>per sq. ft.</i>)	\$1.10	\$1.18	\$1.77	\$1.57
FCI	0.15	0.15	0.09	0.06

Deferred Maintenance Backlog removed: With the completion of Phase 2 renovation and renewal portion of the project the DM backlog will be reduced by \$2.69M and the average FCI in renovated spaces drops from .10 to .08. The most significant reduction in deferred maintenance will be when the Family Consumer Science area in Wiecking Center is renovated. The renovation and renewal of the Family Consumer Science space will drop the overall building FCI from .25 to .20.

Rightsizing and Space Utilization Improvement: Renovated and renewed space will be redesigned for current academic program needs and improve the space utilization. Currently much of this space was originally designed many years ago for programs with different technology and student numbers making them less functional and flexible for multipurpose use.

Energy efficiency and/or other Sustainability Improvements: Design will follow the rigorous State of Minnesota Sustainable Building Guidelines 2030 and participate in the B3 Benchmarking program. Guidelines include recycling and reuse of demolition waste. In addition renewable energy options such as wind and solar will be evaluated and considered during the design process.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The existing campus central steam and chilled water systems have adequate capacity to support the new facility. A spare 13,800 volt switch in a nearby building has been reserved for the new building. This excess capacity was intentionally designed for building expansion in the proposed location.

Building Operations Expenses: The building will be connected to the central utility systems and require 3 FTE support staffing for the 55,717

square foot facility for a total anticipated operating cost of \$281,192 annually for FY16 and FY17. Upon completion of the Phase 2 renovation and renewal of existing space we hope to achieve energy savings of at least 12% with upgraded HVAC and lighting systems for a future savings of approximately \$3,800 per year for FY18 and beyond.

- Operating: \$1.43/SF or \$79,675
- Renewal spending @ \$1/SF: \$55,717
- Facility staff requirements 3FTE @ \$48,600 ea. \$145,800

OTHER CONSIDERATIONS:

Consequences of Delayed Funding:

- Lose the ability to drive down the shortage of more than 8,661 health care workers that will care for the aging "baby boomers."
- Fail to provide a robust multidisciplinary and interdisciplinary pedagogy and unifying clinical settings; students will continue to study in academic "silos" with less clinical experiences that mirror the work place and improved collaboration between the various fields provides a more holistic health care approach will not occur.
- Unable to solve the dilemma of inability to adequately place pre-licensure and nurse practitioner students in practice sites that are becoming increasingly difficult to locate and overwhelmed with requests from other like programs in the region.
- Lose the ability to expand the number of participants by an estimated 5,000 clients and generate a corresponding increase in revenue to help offset our cost of operation.
- Fail to increase the number of labs that are located in a single facility, and which are appropriately sized with state-of-the-art equipment, will allow scheduling of classes using a traditional 45-hour/week schedule and dramatically increase the classroom availability.

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Minnesota State Community & Technical College, Moorhead -Transportation Center

2014 STATE APPROPRIATION REQUEST: \$6,544,000

AGENCY PROJECT PRIORITY: 11 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Space expansion due to student enrollment growth
- Renovation of 23,186 GSF
- Addition of 22,630 GSF
- Demolition of 2,900 GSF
- Number of classrooms/labs impacted: 4
- Accommodate larger construction equipment
- Programs that will focus on alternative fuels and hybrid power sources
- Compete with NDSCS diesel and automotive programs for enrollment

PROJECT DESCRIPTION:

The project involves the design and construction of an expansion to the Transportation Center for the automotive and diesel technology programs on the Moorhead campus of Minnesota State Community and Technical College. This project consists of two new laboratories of approximately 22,630 square feet and renovation of 15,750 square feet of existing laboratory space. The two new laboratories will be used by the diesel technology program to accommodate modern larger diesel agriculture, construction and transportation equipment, and to relieve unsafe congestion in the existing laboratories. One existing diesel technology laboratory will be converted into an expanded automotive laboratory, while the second existing diesel laboratory will be used for smaller-scale diesel equipment, components and vehicles. The existing automotive transmission/drivetrain laboratory and one of the existing vehicle repair laboratories will be converted for “bench” project instruction such as engine, transmission, drivetrain, pumps, steering boxes, hydraulic cylinder and electrical component repair training.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The project will significantly enhance laboratories of the two transportation programs by providing additional space and a safer learning environment. Currently, a maximum of six to eight vehicles or equipment projects can be accommodated in the diesel and automotive laboratories in addition to the student tool boxes and project/vehicle-handling equipment. With average automotive and diesel class sizes of 18 to 22, students are grouped into teams of four, which limits each student’s opportunity to master the tasks or repair process within the time available for instruction.

The lack of adequate laboratory space combined with large vehicles and equipment also poses a significant safety risk to students and instructors. The additional laboratory space will allow 12 vehicles to be accommodated in each new or existing diesel laboratory and in the renovated automotive laboratory and allow two students per project or vehicle, thus making the learning environment more effective, safer and less congested. In addition, these programs, with their strong ties to industry, continually receive large equipment donations. The additional space will allow faculty to better utilize these donations and provide students the opportunity to have hands-on experience.

Currently the diesel program moves components and equipment between the laboratories and uncovered outside parking areas or an external metal storage shed. The expanded height of the new diesel laboratories will allow more efficient rack storage of engines, transmissions, axels and other large equipment and components in the laboratories where they are used.

This expansion also will allow us to accommodate industry-requested and sponsored evening and weekend technical training to meet local industry needs in both programs without compromising the available training space. The expansion also provides the opportunity for new academic programs to address emerging trends in industry.

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

Both the auto and diesel industries are in need of trained graduates, and the employment opportunities for graduates from these programs are expected to increase 3 to 10 percent in both diesel and automotive trades due to local

Minnesota State Community & Technical College, Moorhead -Transportation Center

population growth, increased agriculture production, new construction and retirement of existing technicians. Placement rates for graduates from both programs have been near 100 percent for the past five years despite competing diesel and automotive programs in Wahpeton, N.D. Minnesota Department of Employee and Economic Development predicted job growth from 2.8 percent in the northwest to 11.5 percent in the central region of the state over the next 10 years.

The diesel program has developed very strong industry relationships with several manufacturing companies in the region including Case New Holland, John Deere Construction and Forestry, Bobcat Inc., RDO Equipment Co. and Titan Machinery, Inc. These and other component manufacturers have donated tractors and components valued at more than \$3.6 million in the last seven years. Additionally John Deere Construction and Forestry and Case New Holland initiated and support product-specific training and diesel student sponsorship that includes tuition, tools, internships and graduate employment.

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

Production work is a critical part of technical college curriculum. Students work on projects as part of their learning activities, and customers are billed for the parts and program overhead. This project would add enhanced and rightsized laboratory space which will allow both programs to increase revenue-generating production work. Production work involves the incorporation of equipment and vehicle repair of items owned by individuals, agencies and private companies into student instructional assignments and projects. The real-world nature of these projects requires students to develop and perfect their technical skills to the level similar or equal to the level of performance expected in the workplace. By using this method of instruction, the customer assumes the cost of all the parts, therefore saving the college supply dollars. Both financial and environmental sustainability will be recognized with the new facility, as geothermal technologies will be incorporated. Approximately \$433,000 of deferred backlog will be addressed, in addition to demolishing a 1968 wood constructed storage building.

PROJECT RATIONALE:

The diesel equipment and automotive service technology programs have both experienced significant growth and need additional lab space. Enrollment has increased in the diesel program by 150 percent since 2003 (28 to 70 students). The automotive program has experienced 63 percent growth in the same period (38 to 62). The new and renovated laboratories will provide adequate space for both programs to accommodate the large agricultural, construction and trucking equipment and components that diesel students work on and adequate expanded automotive service areas needed by the automotive service technology program. The increased enrollment in both programs has limited the available training space in each laboratory; increased the number of students assigned to each project or vehicle, thereby reducing content mastery; increased the safety issues caused by overcrowding and larger equipment; and reduced the effectiveness of training.

In addition, a direct competitor of the M State - Moorhead Campus is North Dakota State College of Science (NDSCS) in Wahpeton. It recently constructed a \$10.5 million expansion, which puts additional pressure on M State to upgrade our facility. Without expansion and improvement of the M State facilities, prospective Minnesota students and corporate sponsors could be attracted to the newer NDSCS diesel and automotive facilities.

Institution Master Plans and Regional Collaborations: M State is a collaborative comprehensive community college with campuses in Detroit Lakes, Fergus Falls, Moorhead and Wadena. This project is representative of college academic, facilities and technology plans. The college master facilities plan identifies the need to renovate and expand the 1966 and 1972 existing facilities associated with this proposed project. Strong partnerships have already been established with Case New Holland, John Deere and others.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Currently, the diesel technology program has a close working relationship with the Case New Holland agriculture division and the John Deere Construction and Forestry equipment division. Case New Holland has donated nearly \$1.4 million in instructional components and equipment, while John Deere provided \$284,500 in equipment and components. Both Case New Holland and John Deere sponsor multiple students in our training programs. Student sponsorship in these exclusive

Minnesota State Community & Technical College, Moorhead -Transportation Center

programs includes tuition, books, tools and internships that ensure that these sponsored students are prepared for employment. Upon receipt of funding, these companies will have access to training facilities for greater continuing education opportunities, and other companies may be attracted to partnering with M State, as well.

Campus Data:	2008	2009	2010	2011
FYE	1914	1913	1972	2047
Headcount	3188	4347	4450	5173
Space Use %	106%	102%	101%	95%
R & R (<i>per sq. ft.</i>)	\$0.61	\$0.40	\$0.91	\$0.80
FCI	0.15	0.15	0.14	0.14

Deferred Maintenance Backlog removed: Approximately \$433,000 of deferred backlog will be addressed, in addition to demolishing a 1968 wood constructed storage building.

Rightsizing and Space Utilization Improvement: There is considerable collaborative lab and classroom space planned for the Diesel and Automotive Technology Programs. This was intentionally designed to best utilize the space. The design was considerably 'right sized' to make best use of the resources of space and dollars. The existing spaces have an 80 percent space utilization average, which is considerable with the dedicated lab space. The project provides collaborative spaces between programs, which will result in an increase in utilization.

Energy efficiency and/or other Sustainability Improvements: Day lighting and occupancy sensors, geothermal floor heat, heat recovery and solar hot water heating are included in the cost analysis.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The campus heating plant is near peak efficient capacity. Geothermal will be utilized in this project. Water, sewer and electrical main service are adequate for the project.

Building Operations Expenses:

- Operating: 3.35/S.F., total cost \$65,090
- Renewal spending @ \$1/SF: \$ 19,430 annually

Debt Service:

The current average debt service paid by the college is \$239,971 annually. This project would increase our average annual debt service by \$73,367.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

In the event this project is not funded, the college will need to explore leasing additional space or capping enrollment. As there is no suitable space for lease near the campus, students and staff would be required to travel. The growing size of agricultural and construction equipment exacerbates this space need. The physical size of today's agricultural and construction equipment requires additional lab space in our educational institutions, and we are currently at capacity with our transportation facilities.

In addition, we already are experiencing difficulties in scheduling time for industry training without serious disruptions for our current programs. Further delay in this project would cause safety and enrollment concerns and may jeopardize our relationship with industry supporters.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Matt Sheppard, Director of College Facilities, 1900 28th Ave. South, Moorhead, MN 56560, 218-299-6519 (office) 701-371-5636 (cell) 218-299-6852 (fax), matt.sheppard@minnesota.edu

Rochester Community & Technical College-Design, post-demolition

2014 STATE APPROPRIATION REQUEST: \$1,000,000

AGENCY PROJECT PRIORITY: 12 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Demolish up to three of the oldest buildings on the campus underutilized to reduce campus square footage
- Renovation and Renewal of 30,000 GSF (from relocation)
- Demolition of 43,800 GSF (not part of this project)
- Eliminate \$2.7 million of deferred maintenance backlog
- FY2016 Request of \$5,000,000 for the design and renovations of relocations resulting from three campus buildings being demolished
- The project will reduce under-utilized space, allow for campus right-sizing, and provide for better adjacencies

PROJECT DESCRIPTION:

The project will demolish up to three of the oldest building on the campus – Plaza, Memorial, and Art Halls, each of which were constructed in the early 1970’s. The demolition of these three buildings is not part of this project but is instead part of the system’s priority number 2, Demolition. In the meantime, the functions/users need to be relocated throughout the campus. The cost for relocation is approximately \$1 million for 2014 and \$5 million is being requested for the 2016 Capital Request.

When these buildings were built, fire suppression systems were not required by the fire codes and there were no ADA clearance requirements for the restrooms. Also the existing buildings were equipped with packaged terminal heating and air conditioning (PTAC) or ‘motel-type’ units in each faculty office – 90 total units would have to be replaced by an energy efficient central system. The HVAC and electrical systems in these buildings are beyond their average lifecycle and could fail at any time. Due to the age of these systems, there is increased expense and difficulty in getting replacement parts.

In addition to the cost of renovating these building verses demolition cost; space utilization also came in as a supporting factor of these three buildings

being demolished. As of Fall 2012, the reported space utilization for Memorial, Plaza, and Art Halls ranged between 48% and 68%, which is well below the system average of 70%.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The configuration and quality of the classrooms in these buildings do not meet the needs of RCTC or WSU which would offer quality academic programs in a flexible, efficient, and effective manner. Renovation of the relocated classrooms, labs, and faculty spaces throughout the campus will allow for better space utilization and rightsizing the campus for the future.

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

The current configuration is not optimal in delivering the quality programming expected of college.

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

The effort will create a more flexible and unified office and classroom arrangement within the existing campus after demolition.

Institution Master Plans and Regional Collaborations: The Campus Master Plan Update completed in July 2012 originally identifies these buildings for infrastructure upgrades and remodeling. However during the 2014 Capital Budget process, the campus was approached about pursuing demolition and rightsizing. The predesign and facilities master plan are being amended to reflect this change in direction.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The campus has and will continue to look at any alternative project funding and cost share options that are available.

Campus Data:	FY 2009	FY 2010	FY 2011	FY 2012
FYE	4410	4714	4648	4474
Headcount	590	609	619	645

Rochester Community & Technical College-Design, post-demolition

Space Use %	69%	64%	59%	62%
R & R (<i>per sq. ft.</i>)	\$1.15	\$0.88	\$1.80	\$1.85
FCI	0.06	0.06	0.07	0.07

Deferred Maintenance Backlog removed: TBD

Rightsizing and Space Utilization Improvement: The demolition will require renovation to reincorporate the programmatic and office space within the campus. The classrooms will be flexible enough to be used for upper division and graduate level seminar-style classes by WSU-R. Evening and weekend utilization of these classrooms will increase as they are remodeled to be more flexible.

An effort to consolidate office space within the existing building footprint will also be included in this effort.

Energy efficiency and/or other Sustainability Improvements:

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure:

Building Operations Expenses:

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-

MAIL: Shayn Jensson, Facilities Project Manager, Rochester Community and Technical College, 851 30th Ave SE Rochester, MN 55904

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Minnesota West Community & Technical College - Initiatives

2014 STATE APPROPRIATION REQUEST: \$3,487,000

AGENCY PROJECT PRIORITY: 13 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Design, renovate, furnish, & equip space to meet workforce training needs
- Canby Campus:
 - Renovation of 40,000 GSF (Geothermal system)
- Jackson Campus:
 - Renovation of 4,090 GSF (ITV Classroom)
 - Addition of 8,400 GSF (Powerline Facility)
 - Demolition of 18,000 GSF (Powerline Facility)
 - Current Powerline programs return to the main campus
 - Relocation of programs allows for the property to be offered for sale
- Each project cost will be between \$739,000 and \$2,000,000, and a construction schedule of less than 18 months
- Number of classrooms/labs impacted: 25
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Classroom: The classroom initiative has been developed to relocate, resize and reduce the number of existing ITV classrooms and the existing computer lab to a centralized location in the core of the campus. The project consists of rightsizing the existing LARC, ITV Classrooms, a computer lab and a Minnesota Work Force Center Office. The relocation will concentrate student centered spaces in the campus core, provide for better adjacencies to classrooms/trade program labs and provide for greater student-faculty and student-student interaction.

Powerline: The 1966 Addition is an underutilized drain on the Jackson campus. Therefore, the project demolishes a 18,000 square foot two-story addition to the main building, and constructs an 8,400 square foot indoor

training facility for the powerline program. Upon completion of the project, the college will make available for sale approximately 35.4 acres of land adjacent to the Des Moines River including a 5,264 square foot storage building located one mile from campus. The demolition site would provide a footprint for the construction of an indoor powerline training facility with an adjacent exterior truck storage area.

Geothermal: The energy initiative proposes the installation of a geothermal HVAC system in the main classroom building on the Canby campus, Englund Hall. The initiative includes removing the existing steam boilers, air-cooled chillers, DX condensers & converters, air handling units, and corresponding distribution systems. The majority of the existing system dates back to the 40,000 GSF building's construction in 1964 and as such is beyond its useful life expectancy, is inefficient in comparison to today's technology and does not provide adequate building ventilation, temperature, humidity and pressurization control. This new system will also utilize an existing well field that was installed in 1989.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Classroom: The relocation of the ITV classroom will concentrate student centered spaces in the campus core and will provide for better adjacencies to classrooms and trade program labs. The relocation to the campus core will also provide for greater student-faculty and student-student interaction. This is especially important to students who are traditionally underrepresented in higher education as it removed barriers to services and ultimately success.

Powerline: Relocating the Powerline Technology program to the campus will give equal access of campus services and support programs to every student, increasing their chances of success. Because the students are at a remote location for much of their coursework, they may not be able to participate in study groups for general education courses, student life activities that are scheduled on campus or access the services of student services or business office personnel that have limited office hours.

Minnesota West Community & Technical College - Initiatives

Geothermal: Two programs at the Canby campus will gain additional capacity from the installation of a geothermal heating/cooling system: construction electrician and wind energy. The construction electrician class that is attending during the installation will learn first-hand what is involved in that process. Those students attending after installation will learn about the maintenance and upkeep of the system. The campus has a long history of allowing students to shadow during key times in order to bring additional elements to the learning experience here at the college. The wind energy program is interested in all renewable energy opportunities and will benefit as well.

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

Classroom: Most courses offered via ITV are liberal arts/general education courses – many of which are a part of the Minnesota Transfer Curriculum. Students are able to transfer these courses to a state university within the system. Students who choose ITV courses over online options do so to increase their completion, which assists with retention.

Powerline: Graduates are trained to become apprentices in powerline construction and maintenance, supporting the Southwest Minnesota Region and economy with skilled persons trained to work for power companies, municipalities, and electrical contractors installing and maintaining overhead and underground powerlines, over voltage and over current protective devices, transformers, capacitors and regulators. This project provides the training facility necessary to produce graduates ready to enter the workforce for these relatively small employers. Many graduates want to remain in the area after graduation and work for a regional REA.

Geothermal: The project is about energy efficiency, upgrading a building whose mechanical systems date back to the mid 60’s and providing students with a learning environment that is warm(cool), dry and safe. In addition to all student service and academic administration services, the programs delivered in this building include wind energy technology, construction electrician, dental assisting and liberal arts – all programs that help to meet the workforce needs of southwestern Minnesota and the surrounding area.

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

Classroom: This project will begin the process to ultimately reduce the square footage of the Jackson campus. In doing so, funds that would otherwise be directed to utilities and maintenance of the space will be eliminated allowing them to be redirected to instruction and services for students.

Powerline: The current outdoor training field sits on low ground that is prone to annual flooding. This limits the number of days the site is available for in field training. Because there currently is not an indoor training facility, weather can dictate hands on training time. Currently campus cannot offer the same training experience as surrounding regional colleges that can offer indoor training facilities and are not hindered by environmental impact of an exclusively outdoor training field. By re-locating the outdoor training field to higher ground on campus and adding an indoor training component, the students will have consistent access to training. This facility would allow the college to offer Minnesota students the same facilities as those available in Nebraska and South Dakota.

Geothermal: The project will ultimately reduce the energy consumption by an estimated \$28,101 annually. When factoring in a utility rebate, the simple payback of the geothermal heat exchanger costs alone is 8.7 years. An additional savings of operational costs is estimated at \$1,208 annually. Strong controls on facilities costs as well as smart investment in infrastructure allow for reinvestment in academic program budgets as well as other areas that provide direct services to students.

Institution Master Plans and Regional Collaborations: All three projects were identified, as a near term (0-2 year) project and are guided by both the underlying principles and initiatives in the 2012 campus master plan update.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Geothermal project qualifies for an Otter Tail Power electric utility rebate of approximately \$52,200. As mentioned before, this project also re-uses the existing GHEX that would otherwise be abandoned.

Jackson Campus Data:	2008	2009	2010	2011
FYE	350	391	454	314
Headcount	797	699	904	965

Minnesota West Community & Technical College - Initiatives

Space Use %	144%	67%	53%	66%
R & R (<i>per sq. ft.</i>)	\$1.22	\$1.13	\$1.18	\$0.82
FCI	0.04	0.04	0.04	0.05

Canby Campus Data:	2008	2009	2010	2011
FYE	268	229	269	189
Headcount	217	230	271	317
Space Use %	43%	62%	42%	61%
R & R (<i>per sq. ft.</i>)	\$1.22	\$1.13	\$1.18	\$0.82
FCI	0.05	0.04	0.04	0.04

Deferred Maintenance Backlog removed: The Jackson campus currently has an FCI of 0.05. The mechanical, fire protection, electrical and technology portion of this project will reduce the FCI. Additionally, if the vacated space is not leased, it will be mothballed, until funds are available for demolition. The demolition of the 1966 addition on Canby campus will result in the elimination of \$393,000 in deferred maintenance and will reduce the main campus by 9,600 GSF. Demolition of the radio tower will eliminate maintenance and related safety issues as well. The 1966 main building addition has an FCI of .03 and a backlog of \$326,000, which will be eliminated with its demolition.

Rightsizing and Space Utilization Improvement: The Jackson campus has experienced a reduction in ITV enrollment, compounding the need to address the size and number of the existing classrooms. There are currently four ITV classrooms with a capacity of 12 students in each. (This is misleading as the rooms have a capacity of 20-24, but currently have seating for only 12.) This project strategically sizes the ITV studios based on current and projected enrollment trends at two studios with a capacity of 12 and one studio with a capacity of 24. Canby campus will reduce 9,600 GSF and eliminate a 35.4 acre site with a 5,264 building through the completion of this project. Although much of this space is mothballed for purposes of the space utilization report, true space utilization will be improved due to this loss of square footage.

Energy efficiency and/or other Sustainability Improvements: Canby campus estimated annual energy savings is \$28,101 for the 40,000 GSF building. The energy efficiency exceeds the State Energy Code by 30%.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Existing infrastructure will support the proposed work.

Building Operations Expenses: Institutional operating expenses for maintenance & cleaning of space will be reduced when 4,000 square feet of space (Jackson campus) is no longer used by the college. At a FY12 rate of \$3.32 per square foot, this amounts to 14,276 in savings. Additionally, the elimination of the care and upkeep of existing outdoor line field will reduce the annual plant op budget. The largest expenses include snow removal, lawn care, electricity and lavatory rental. Annual savings are estimated at \$6,000.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding:

Jackson campus will continue to incur maintenance and utility expenses for space that is not needed and students will not be better served by a facility that is conducive to student/faculty and student/student interaction, will be forced to continue their abandonment of the second floor of the building that will cause the building to deteriorate or invest in a replacement elevator that meets code compliance, will not be able to attract students from the south and west where indoor line field facilities are available, and will not reach its goal of being recognized for its competitive academic training facility.

Canby campus will continue to operate an outdated and inefficient system and likely request funds to replace a boiler(s) in 2016. The college will remain reliant on natural gas (costs & natural resources) instead of using the heating/cooling available from ground source wells.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

Lori Voss, VP of Administration, 1011 1st. Street West, Canby, MN 56220, 507-223-1331 (p), 507-223-7105 (f), Lori.voss@mnwest.edu

Dakota County Technical College-Transportation & Emerging Tech. renovation

2014 STATE APPROPRIATION REQUEST: \$7,586,000

AGENCY PROJECT PRIORITY: 14 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, Transportation and Emerging Technologies Phase 1 - \$7,230,000 (Design and Construction)

Project At A Glance:

- Renovate and right-size instructional spaces that augment high-wage, high-demand STEM related and transportation programs
- Schematic Design completed
- Renovation and Renewal of 65,550 GSF
- Number of classrooms/labs impacted: 7
- Increase enrollment and expand Transportation programs
- Enhance and develop STEM related programs through expanded technology and multifunction lab space

PROJECT DESCRIPTION:

The request for \$7.6 million is Phase II of a project started in 2012 and will renovate, rightsize, and create shared/flexible space for 66,500 square feet. The scope of Phase II will renovate the heavy truck program, heavy construction equipment program, multiuse classrooms, common use spaces, and recoup new space for possible new emerging technology programs such as Photonics and Megatronics—similar to what we have already started in Biomedical Equipment, Nanoscience Technology, and Energy Technical Specialists.

Both phases of this project remodels instructional spaces that augment high-wage, high-demand transportation and STEM-related programs, including transportation industry careers such as Automotive Technician, Automotive Collision Technology, Railroad Conductor, in addition to the STEM programs identified above. The renovation aims to maximize space utilization by creating common classroom and laboratory spaces for related academic programs, thereby eliminating redundancies in specialized equipment needs, reducing program expenses, improving efficiencies and providing learning environments easily modified to accommodate future academic programs.

This project will complete the two-phase project that started in 2012 that continues the renovation of areas of our college that have not undergone remodel since its original construction in 1973.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

By providing training for high-wage, high-demand jobs, transportation and technical programs continue to attract student interest at increasing levels. More than 50 percent of students in these programs are underrepresented. Space efficiencies will support curricular modifications that will provide additional points of entry and increase student access to state-of-the-art laboratories and specialized equipment. These modifications will improve the quality of the instructional environment and the academic success of the learners.

Dakota County Technical College (DCTC) serves more than 11,500 total students annually; 3,000 students take credit-based courses and 8,500 students take continuing education or customized training courses. During FY12, there were 356 students in transportation and 367 students in technology programs, most of which are affected by the two phases of this project. DCTC collaborates with more than 300 businesses in our service area. The renovation will attract further opportunities for partnerships and collaboration with universities and business and industry, such as RDO Equipment Inc., the largest privately owned John Deere dealership chain in the US, and Nortrax, the corporate owned John Deere dealership chain. Both of these companies are in the early stages of establishing partnerships with the Heavy Construction Equipment program. Additional partnerships include with Penn State University, Nuclear Regulatory Commission, Nuclear Energy Institute, Xcel Energy, 3M, Metronic, and Boston Scientific will continue to grow with are STEM related programs of study.

The proposed renovation will focus on efficiently and flexibly identifying and sharing common classrooms, laboratory space, and equipment across transportation and technology-related program areas. The renovation project will right-size spaces used by both DCTC and Intermediate School District 917.

Dakota County Technical College-Transportation & Emerging Tech. renovation

The remodel will allow DCTC to more adequately provide students with the industry-standard equipment and technology used in these high-wages, high-demand fields (i.e. working with water borne paint booth procedures instead of solvent borne paint in automotive collision repair) as well as to more effectively partner with business and industry by providing the updated curriculum, skills and training necessary in a competitive global economy (ie. Nuclear Uniform Curriculum Program in partnership with Xcel Energy). It will also pave the way for further enhancement and development of STEM-related programs through enhanced technology and multifunction lab space. As an example, DCTC has recently started new programs in the emerging fields and had 102 students in Civil Engineering Technology, Nanoscience Technology, Energy Technical Specialist, and Nuclear Energy Technology in FY12.

Be the partner of choice to meet Minnesota's workforce and community needs:

Classroom and lab spaces within the transportation and technical divisions will be reorganized, modernized and right-sized, thereby helping DCTC to better prepare graduates for high-wage, high-tech industries in this region. On average, 95 percent of graduates were able to secure work in their area of study.

This trend will likely continue; the Minnesota Department of Employment and Economic Development projects that high-pay emerging technology careers will experience growth equivalent to or greater than other occupations through 2016. In the seven-county metropolitan area served by DCTC, biomedical equipment is projected to grow 12.5 percent, engineering services are projected to grow 19 percent, and other professional and technical services are expected to grow 33.8 percent.

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

Establishing new corridors and absorbing others into learning spaces provides the ability to expand and increase programs with the existing square footage. By creating more efficient spaces, the college will right-size classroom and laboratory spaces, utilize lab space across multiple programs, design spaces that are adaptable and flexible for future growth and changes in academic programming, and create the best value for learning through

collaborative partnerships with higher education institutions and business and industry.

The project provides shared spaces and equipment designed to educate students about transmission and engine systems in both the Heavy Construction Equipment Technology and Heavy Duty Truck Technology programs. The previous Phase I project provides for coring/sharing between our Welding Technology, HCET and Energy Technical Specialist programs that continue to support the more flexible, multi-use space to provide a more efficient teaching and learning environment.

This project will utilize an innovative coring strategy focused on efficiently and flexibly using common classroom and laboratory space to support multifunctional learning across transportation- and technology-related program areas. The college will also realize significant value that will result in a reduction in the FCI that is currently more than twice the system FCI.

Institution Master Plans and Regional Collaborations: The college is taking a leadership role in the newly funded Transportation Industry Consortium, where we work with all MnSCU colleges to strengthen the quality of the relationships between all modes of transportation and the industry sectors. The quality environment of our new facilities will strengthen the collaboration with higher education institutions as well as with businesses and industries already partnering with the college. These partnerships include the University of Minnesota in Nanoscience Technology, 10 two-year colleges within MnSCU in Energy Technical Specialist, and Zeigler Caterpillar, Nortrax, and RDO Equipment in Heavy Construction Equipment Technology.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: DCTC has leveraged partnerships leading to a broad range of support. Workforce-related grants and long-standing industry partnerships have provided access to equipment and other technology resources for all instruction at the college. The college was recently awarded a leveraged equipment grant from the System Office with matching funds generated through alumni, faculty and staff contributions to the college Foundation. Through these past successes and with a recent shift in priorities through the college's Foundation, future equipment, technology, and facility needs are to be considered special projects and may receive

Dakota County Technical College-Transportation & Emerging Tech. renovation

priority support from the Foundation efforts. As a direct result of this sector's strength and need for skilled graduates, industry partners in both transportation and emerging technologies have partnered with the college including companies such as General Motors, Chrysler Corporation, 3M, Zeigler Caterpillar and Xcel Energy by supporting the college's training and education programs through donations of equipment, materials, in-kind services, and scholarship dollars which recently totaled \$1 million. Additionally, the college has been able to secure dollars from the National Science Foundation and Nuclear Regulatory Commission through emerging technologies programming, and the renovation of the area would allow the college to leverage other governmental sources for additional funding.

Campus Data:	2008	2009	2010	2011
FYE	2,104	2,206	2,484	2,549
Headcount	4,690	5,282	5,598	5,915
Space Use %	92%	69%	62%	65%
R & R (<i>per sq. ft.</i>)	\$3.60	\$1.53	\$1.43	\$0.89
FCI	0.32	0.24	0.26	0.27

Deferred Maintenance Backlog removed: The college had an FCI of 0.26 in 2009-10. Items from the deferred maintenance backlog to be renewed include HVAC/VAV totaling \$8.3 million, thereby reducing FCI to 0.20. The FCI remains high until the remaining 20 air handlers are replaced.

Rightsizing and Space Utilization Improvement: This project will utilize an innovative coring strategy focused on efficiently and flexibly using common classroom and laboratory space to support multifunctional learning across transportation- and technology-related program areas. The proposed renovation will focus on efficiently and flexibly identifying and sharing common classrooms, laboratory space, and equipment across transportation and technology-related program areas. The renovation project will right-size spaces used by both DCTC and Intermediate School District 917.

Energy efficiency and/or other Sustainability Improvements: Seven new air handlers will reduce energy consumption by one-half for the areas affected in this project. Additionally, the project will upgrade the VAV and lighting systems in the remodeled area. This project aligns with and will continue the mission and goals set forth by DCTC's sustainability efforts.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The utility demands of the proposed project are well within the capacity of current utility infrastructure.

Building Operations Expenses: Replacing the air-handling units will save approximately 12.5 percent of DCTC's utility bills.

OTHER CONSIDERATIONS:**Consequences of Delayed Funding**

- Recruitment of underrepresented students to these programs will be severely hindered when the learning environment is of poorer quality than area high schools.
- Growth of current and future industry partnerships and additional external funding will be impeded when the facility is unable to fulfill outcome expectations and obligations.
- DCTC will not adequately meet industry skill standard expectations of its transportation and emerging technologies industry partners. The ability to meet skill standards is directly impacted by the condition of the learning environment.
- The Phase I program moves that were accomplished under Phase I outcomes have a huge impact on Phase II programs that will potentially be funded under this request. Partial completion of the two-phase project impacts the delivery of many DCTC programs.
- Classroom and laboratory spaces will continue to be used inefficiently and programmatic coring will be slowed, delaying significant savings in shared equipment, space utilization, and program sustainability efforts.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-

MAIL: Paul DeMuth, Director of Operations, 1300 145th Street East, Rosemount, MN 55068. Phone: 651-423-8370, Fax: 651-423-8076, Cell: 612-770-9024. Email: paul.demuth@dctc.edu

Century College - Initiatives

2014 STATE APPROPRIATION REQUEST: \$2,020,000

AGENCY PROJECT PRIORITY: 15 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Design, renovate, furnish, & equip space to meet workforce training needs
- Renovation and Renewal of 4,500 GSF (Kitchen space)
- Renovation of 3,450 GSF (Digital Fabrication Lab)
- Renovation of 1,200 GSF (Solar Panel System)
- Each project cost will be between \$490,000 and \$770,000, and a construction schedule of less than 18 months
- Number of classrooms/labs impacted: 11
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Kitchen: The project will fully renovate an underutilized kitchen space into 2 new technology classrooms and 3 revitalized classrooms with upgraded technology. The 3 revitalized classrooms are currently operational as classrooms; however none have adequate provisions for technology for contemporary teaching. The existing space to be repurposed for the New Technology Classrooms is currently a prep kitchen used to prepare cafeteria lunches. As the food service program follows a deli concept, we do not require extensive prep and dishwashing functions, rendering the existing space as under underutilized.

Fab Lab: This project will renovate and enhance the Century College Digital Fabrication Laboratory (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, and allowing the Fab Lab spaces to be combined and join spaces with Engineering and Engineering CAD.

Solar Panel: 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 (24 students) and faculty to support instruction, research and experimentation in solar energy technologies. The Energy Technician Specialist Associate in Applied Science Degree at Century College is part of a state-wide consortium of nine MnSCU colleges that is offering this joint Associate in Applied Science degree in Renewable Energy. Century College is the only Metro-area college in the consortium.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Kitchen: As the largest two-year college in Minnesota, and the third largest in the MnSCU system, Century is striving to meet the space needs of the student population. To ensure access to an extraordinary education and expand existing partnership agreements with other MnSCU institutions, we must provide additional classroom capacity soon, as the college is not currently able to meet demand for courses and partnerships due to lack of space. The proposed project will alleviate the space deficit, allowing for greater collaboration with other MnSCU institutions thereby increasing access to baccalaureate programs.

Fab Lab: The need for skilled technicians in engineering, science, and manufacturing fields continues to grow. According to the MN Dept. of Employment and Economic Development, the employment level for STEM related jobs in Minnesota will increase dramatically between 2004 and 2014, with jobs in architecture and engineering occupations growing 46% while computers and high tech occupations grow by 31%. (MN DEED, Education and Workforce Overview, 2012)

Solar Panel: College's vision for the Solar Technician Lab is to create a space that can support Alternative Energy curriculum programming and increase access and interest in STEM disciplines. The current lab space

Century College - Initiatives

exists on a mezzanine above the HVAC lab. It was undesignated found space (previously storage) that the Alternative Energy curriculum has made use of. As the program grows and develops, a more appropriate and identifiable space is necessary. This project also supports expanded cooperation with internal and external partners, including Continuing Education/Customized Training (CE/CT), foundations, corporations, government, and other MnSCU campuses.

Be the partner of choice to meet Minnesota's workforce and community needs:

Kitchen: As the largest continuing education / customized training provider in the state, it is critical for Century to remain responsive to workforce and community needs. Century's workforce development program has assisted area adults during the economic downturn with numerous workshops and training opportunities. This classroom initiative project will provide necessary classroom space to high-demand programs including business careers, interior design, allied health, human resources, and criminal justice and technical careers.

Fab Lab: By renovating space and combining the Fab Lab and Tech Lab (Engineering and Engineering CAD), the proposed project will better support STEM programs and workforce needs. The renovated space will encourage the development of technical skills and professional skills, as well as facilitating both group-work and individual work. Students will be able move between a team meeting, a computer, and a machine as they would in the work place. Improvements adding storage space will improve of team projects. The College also offers the use of the Fab Lab to local K-12 partners and various educational community and business agencies. The College keeps open several seats in the course, "How to Make Almost Anything" (ECAD 1025), for non-credit students.

Solar Panel: A new company in Iron Mountain, Minnesota has recently begun to produce solar panels. This and other energy companies in Minnesota are being approached by Century College for partnerships in designing, operating and purchasing the solar components of this project. All of these facts combine to tell a story that there is a growing need within the workforce for persons skilled in solar and alternative energy technology.

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

Kitchen: Century has utilized its operating budget to make the highest direct investment in physical renovations of all MnSCU institutions. In this way, Century has maximized the efficient use of space on campus. By eliminating obsolete kitchen facilities and renovating to new active learning classrooms, the proposed project maximized the efficient use of space and demonstrates an investment to preserve and project facilities, infrastructure, and reduces operating costs.

Fab Lab: Developed with MIT, the Century Fab Lab is one of only a handful of such labs within the United States, and one of only 26 in the world, connected to MIT and the network via ITV. With support from NSF, Century is also collaborating with Fox Valley Technical College and UW-Stout to form the Midwest Digital Fabrication Partnership. Through these partnerships, as well as the growing international network of Fab Labs, Century is able to play a key role in providing users around the globe with the ability to locally conceptualize, design, develop, fabricate, and test almost anything. Regionally, the Century Fab Lab is visible as a "pioneer venture." Century played a key role in launching the Midwest Fab Lab Network (MFLN) – the first regional network of Fab Labs in the United States – and continues to provide national leadership as one its faculty members serves as the Associate Director. Locally, Century is developing partnerships with 3M and other technology and engineering related businesses to expand the use of the lab and explore joint ventures addressing issues of common concern.

Solar Panel: The renovation of the existing Digital Fab Lab into the Solar Technician Lab maximizes efficient use of existing space; it requires no additional infrastructure and only minimal demolition and construction. The project is located on the East Campus, an area of the College with a high FCI (.30). By eliminating worn and dated interior finishes, the project will lower the FCI. The renovation of the Fab Lab is ideal for the Solar Technician Lab because the current exhaust systems within that space can be reused by equipment utilized by the Solar Lab.

Institution Master Plans and Regional Collaborations: These three initiatives support the master plan goals to strengthen our offerings to provided boarder educational opportunities to students within the region in workforce areas that are in critical demand.

Century College - Initiatives

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Because of the high demand for the FAB Lab, we have started to charge some of our partners a small fee for the material used in the fabrication. We are keeping it free for the high school students and the College’s student technology fee is covering the portion for the Century students. Local entrepreneurs using the Fab lab will be charged.

Campus Data:	2008	2009	2010	2011
FYE	6,287	6,714	7,650	7,879
Headcount	12,329	13,030	14,766	15,219
Space Use %	104%	111%	108%	105%
R & R (per sq. ft.)	\$2.52	\$1.76	\$2.30	\$4.71
FCI	0.26	0.21	0.21	0.23

Deferred Maintenance Backlog removed: Removal of obsolete equipment (exhaust hoods, no longer necessary) and replacing oversized equipment with new energy efficient HVAC systems removes a backlog of \$100,000 and reduces operating energy costs.

Rightsizing and Space Utilization Improvement: The kitchen project repurposes existing underutilized space, which was used for support for building functions, and repurposing that space for direct use by students and programs. The Digital project is proposed for a new location, within the existing facility, which will be vacated. By co-locating the two lab functions into one lab, and increasing the lab capabilities, as well, when the current fab lab locations become available, they will be reconfigured for a solar lab (solar panel system) which is currently located in an upper level non-accessible space. The utilization of both spaces is expected to increase in their new locations due to effective proximity to classrooms and other support spaces. Solar Panel lab will be located within the existing space of a vacated fab lab space returning that space to utilization and will in turn vacate an upper floor mezzanine, which is not accessible.

Energy efficiency and/or other Sustainability Improvements: These projects will increase the operating efficiency of HVAC systems through new HVAC distribution and local controls and the removal of obsolete inefficient equipment. Also new energy efficient exhaust venting will be installed on the equipment as required by code. Abatement will also occur at this location,

improving envelope quality. Power from the photovoltaic arrays will be provide savings in the two most common modes of connectivity (utility grid and battery backup).

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Current infrastructure is adequate for this project and no new utility services are anticipated.

Building Operations Expenses:

Removes inefficient HVAC equipment positively impacting utility costs savings, and removes old equipment from backlog, eliminating the level of on-going maintenance currently required.

OTHER CONSIDERATIONS:

The existing kitchen is underutilized, and the existing classroom capacity campus wide is heavily burdened. A delay in project funds will not enable the campus to continue to increase classroom capacity to meet current need.

The Fab Lab is currently spread between two spaces, causing challenges in safety, visibility of students, and in classroom scheduling. Delayed funding for this initiative will continue to cause challenges of those types. As well, delay will not enable the Campus to provide the Fab Lab spaces to additional programs, and will need to limit use by industry partners (who are charged for its use) due to the safety and space conflicts.

Delayed funding of solar panel system would mean the existing solar energy lab would remain in an inaccessible mezzanine space and the program would not grow to include hands on solar learning / analysis from the array panels, limiting the students’ access to relevant learning in an advancing energy market. The program requires an eligible solar installer and has an associated guide for hiring a renewable energy contract. Without this solar technician lab, properly trained installers and maintenance technicians may not be available to ensure the success of the program.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Dr. Patrick Opatz, V.P., 3300 Century Avenue North, White Bear Lake, Minnesota 55110, email: Patrick.opatz@century.edu

Northland Community & Technical College, TRF - Aviation Maintenance Facility

2014 STATE APPROPRIATION REQUEST: \$5,864,000

AGENCY PROJECT PRIORITY: 16 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, Aviation Maintenance Facility - \$300,000 (design)

Project At A Glance:

- First college in America to offer a degree program in Unmanned Aerial Systems (UAS) Airframes and Powerplant Mechanics
- Renovation of 5,500 GSF
- Addition of 20,400 GSF
- Demolition of 21,680 GSF
- Number of classrooms/labs impacted: 4
- Schematic Design completed
- Eliminate 30% of deferred maintenance backlog
- Increase enrollment and expand Technology programs

PROJECT DESCRIPTION:

Existing Aviation Maintenance Technology (AMT) facilities at the NCTC airport campus are inadequately designed to support the future needs of the Unmanned Aerial Systems (UAS) and Imagery Analyst (IA) programming and need to be replaced. The Swenson Hangar and the 1990s-era classroom building are adequate for the existing AMT program. The current metal hangers that are located between the Swenson Hangar and the classroom building are at the end of their life cycle, and do not provide the secure and flexible spaces necessary for the new programs. Equipment must be secured and used effectively and efficiently to serve the needs of the projected 150–250 students who will be trained each year. Various major pieces of equipment need to be replaced, modified, and adapted. Additionally, the site modification plan allows for multi-platform/multi-use training. With national airspace restrictions expected to be lifted by the FAA as soon as 2014, industry leaders will be increasing their operations in the United States. The proposed modification and construction project will allow

for future training and partnerships within the industry; and, ultimately ensure that NCTC will have a significant influence in the UAS and aviation industry. Additionally, campus airport facilities will be brought in line with today's technology standards in order to properly interface with the equipment needed for the AMT, UAS and IA training programs.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans: Northland provides a critical component in the education of the aviation maintenance workforce. It has developed an unmanned aerial systems (UAS) maintenance training program, funded by a \$5 million ARRA grant from the US Department of Labor. The program enables the development of specific curriculum for a multitude of unmanned aircraft systems. Further, the training program will train maintenance professionals in this new and emerging industry to provide a significant response to meeting the challenges related to the Department of Defense's (DOD's) top priority (i.e. UAS development, training, and implementation).

Northland worked with UAS Industry vehicle/systems manufacturers in the development of the initial framework for the UAS certificate program. The need for highly skilled and trained technicians for this new and emerging technology has been given considerable support from military, governmental, and manufacturing groups. This program directly relates to Northland's institutional mission to: inspire student success; cultivate high-quality program services and employees; and, revolutionize growth strategies to sustain vibrant learning communities.

The new UAS and Imagery Analyst programs will provide students the opportunity to enter new technological fields that are projected to have high demand and high wages. At least 150 potential students not currently affiliated with the college have requested program information for Fall 2012. Inquiries have been generated from advertising on the college and/or aviation program websites, and through feature articles in aviation industry-specific journals.

Northland Community & Technical College, TRF - Aviation Maintenance Facility

Be the partner of choice to meet Minnesota's workforce and community needs:

Northland received overwhelming support from local, regional, and national industry/user groups for this program. In addition, several organizations and publications support the high demand for this occupational skill set:

- One recent industry study estimates that between 2010 and 2015, more than 23,000 UAS jobs could be created by the integration of unmanned aircraft into the National Air Space (Association for Unmanned Vehicle Systems International (2010), "An Assessment of the Impact on Job Creation in the US Aerospace Industry")
- According to Bureau of Labor Statistics, employment growth in the UAS sector for Mid-Level to Supervisory-Level occupations is estimated at "Faster than average", between 14 – 20% (2006 – 2016) (Bureau of Labor Statistics (2008), Occupational Employment Statistics).

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

The Unmanned Aerial Systems (UAS) industry shows promise to drive technology development and economic growth for the future. Northland is strategically aligned to seize this opportunity for growth by leveraging its state-of-the-art aviation maintenance facility and cutting-edge training programs to meet emerging needs. Northland will be the nation's industry leader for UAS maintenance training.

This project will eliminate 21,680 square feet of inefficient metal pole barn type hangars at the end of their useful lifecycle with new efficient multi-use training facility in a new and developing program. With a focus on energy efficiency and technological innovations this project will establish Northland as a leader in the State for Unmanned Aerial Systems (UAS) and Imagery Analyst training. This program even in its infancy is bringing much needed national attention and potential funding to the college and to the region.

PROJECT RATIONALE:

In 2010, Northland received a \$5 million dollar ARRA grant from the Department of Labor to develop the first civilian training program for UAS maintenance. This program requires secure facilities to house new aircraft and equipment. The current Northland facilities are out of date and designed around technology existing when the Aviation Maintenance Technology program was founded 50 years ago. The current hangar/class space is at

the end of its life cycle and would require over 50% of the total valuation to bring it up to an operational level. This estimate does not include the modifications necessary to house the UAS and Imagery Analyst programs.

It is estimated that tuition income from the aviation programs will be at least \$1.8 million per year (AMT \$10,000 x 50 1st year students + AMT \$10,000 x 50 2nd year students + UAS \$8,000 x 100 students per year). The US Department of Defense has already earmarked several billion dollars for UAS research and development from 2009 to 2013. These numbers will only increase as the demand from the UAS industry increases. Space allocated in the proposed building project would allow for partnership with industry leaders with the intent to lower the overall cost for product and equipment support.

Institution Master Plans and Regional Collaborations: Northland's 2009 Master Facilities Plan supports the replacement of these buildings and indicated the following for the Arctic and Composite Hangars:

- Demolition: The proposed demolition will eliminate 21,680 square feet at the Airport campus. This square footage is housed in the Arctic and Composite Hangars. The master plan noted that it would be less costly to replace the structures than to repair them.
- HVAC: The buildings are heated with a number of furnaces. The system should be upgraded to an air handling system with controls and proper exhaust systems meeting current building code requirements.
- Interiors: The interior walls of these buildings primarily consist of the foil faced insulation blankets and metal wall panels. Some of the insulation blankets are falling down. Interior partitions and mezzanines are constructed of wood framing materials.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment:

The college has received two grants for the program. Combined together the grants are around \$10 million with the bulk of the funds going to program costs. A small percentage of the grants included funds for infrastructure upgrades (data/telecommunications/security) and furnishings. The infrastructure funds have or soon will be spent to make temporary improvements to allow the program to function. The furnishings purchased in these grant funds has already been accounted for in the project reducing the amount of funds being requested in the budget forms.

Northland Community & Technical College, TRF - Aviation Maintenance Facility

Campus Data:	2008	2009	2010	2011
FYE	1,121	1,048	1,127	984
Headcount	2,416	2,331	2,384	2,154
Space Use %	62%	63%	62%	53%
R & R (per sq. ft.)	\$1.20	\$1.00	\$0.96	\$0.83
FCI	0.06	0.09	0.11	0.11

Deferred Maintenance Backlog removed: Elimination of backlog and 5 year Renewal work at the Arctic and Composite Hangars.

- Arctic Hangar: Roofing, Walls Flooring; Doors, HVAC Controls, HVAC Equipment, HVAC Distribution; Electrical Equipment; Plumbing, Fire Protection Systems, Fiore Detection Systems, and miscellaneous interior finishes.
- Composite Hangar: Roofing, Walls Flooring; Doors, HVAC Controls, HVAC Equipment, HVAC Distribution; Electrical Equipment; Plumbing, Fire Protection Systems, Fiore Detection Systems, and miscellaneous interior finishes.

Rightsizing and Space Utilization Improvement: The airport campus is currently at 47 percent space utilization due to facilities that are not designed to support the present technical training environment. The capital improvement will provide updated facilities to enhance utilization of space but will not result in additional square footage. The updated facility will include a multi-use laboratory space for the aerospace programs. Enrollment in the current Aviation Maintenance Technology and Unmanned Aerial Systems programs is anticipated to increase significantly over the course of the next several years. The current space utilization of 47% for the aerospace location is anticipated to double within the next couple of years and increase to over 100 percent space utilization in the next five years. This utilization rate is anticipated based on credits necessary for completion and enrollment.

Energy efficiency and/or other Sustainability Improvements: On-site renewable energy will be considered for the project to achieve a minimum of 2% of the total energy for the building addition/renovation. It has been determined that wind generation is not a likely source due to location and FAA height restrictions. However, Azimuth tracking photovoltaic units have been determined as the most likely solution allowing space on the site and avoiding height restrictions in place. Estimations of installed azimuth tracking

photovoltaic systems are \$6.00-\$7.50 per installed watt. With each unit estimated at \$20,000, the total renewable energy cost will approach or exceed \$60,000.

An energy analysis was performed to determine the feasibility of utilizing a ground water geothermal system to heat and cool the UAS building addition. The payback on the geothermal system would be about 144 years. Based on the energy analysis, it is recommended to use an HVAC method.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The capacity of the existing water, sewer, gas, and power infrastructure systems will support this project. Existing utility demands at the airport campus will be reduced through improvements in the existing heating and cooling controls along with proposed renewable energy harvesting as part of this project.

Building Operations Expenses: Heating, cooling, and electrical operational costs are projected to be reduced by this project through the elimination of approximately 2,000 sq. ft. of underutilized space, improved energy efficiency, and use of renewable energy sources. One additional maintenance/security worker will be added to help maintain the facility and its secure areas.

- Operating: \$/SF and \$Total
- Renewal spending @ \$1/SF: \$Total

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Clinton Castle, Director of Facilities, 1101 Highway 1 E
Thief River Falls, MN 56701, (218) 683-8600, Fax (218) 683-8999,
Clinton.Castle@northlandcollege.edu

NHED Itasca, Hibbing, Rainy River, Vermilion-Initiatives & Demolition

2014 STATE APPROPRIATION REQUEST: \$3,344,000

AGENCY PROJECT PRIORITY: 17 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Design, renovate, furnish, and equip space to meet workforce training needs for the initiatives. Demolish obsolete portion of building
- Number of classrooms/labs impacted: 18
- Itasca Campus:
 - Renovation of 1,859 GSF (Wilson Hall)
 - Biomass Heating (campus-wide)
- Rainy River Campus:
 - Renovation of 1,920 GSF (Clinical Nursing Lab)
- Vermilion Campus:
 - Renovation of 2,172 GSF (Art Classroom)
 - Renovation of 4,997 GSF (Natural Science)
- Each project cost will be between \$318,000 and \$887,000, and a construction schedule of less than 18 months.
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands
- Hibbing Campus:
 - Design only of \$387,000
 - Renovation of 11,500 GSF
 - Demolition of 46,805 GSF
 - Eliminate \$4.3 million of deferred maintenance backlog
 - FY2016 request of \$5 million for renovation

PROJECT DESCRIPTION:

Itasca Classroom: Renovate biology lab space located in Wilson Hall. This lab space has not seen any significant upgrades since 1971. The current condition and learning environment of this lab presents an inflexible, outdated learning environment that is not easily accessible to students, nor does it provide the technology needed to engage students in active learning.

Itasca Biomass: Seeking to implement a new woody biomass boiler system on its campus for the purpose of creating a national woody biomass energy demonstration and educational site in support of Minnesota's wood product industry. This project will replace ICC's existing outdated wood boiler with "state of the art" woody biomass energy conversion equipment and will position ICC to serve as a regional and national model for the effective use of woody biomass, to further develop educational opportunities and training in renewable energies, and serve as a potential applied research lab for evaluating woody biomass fuel products.

Rainy River: The purpose of the Clinical Skills Lab is to offer the students a fully equipped, state-of-the-art environment that promotes clinical practice in a professional setting which fosters learning. Once the skills have been mastered, the students can demonstrate and be evaluated by the faculty on the learned skills.

Vermilion Art: The project renovates the VCC Fine Arts studio and adapts an adjacent classroom to become a media design center. This project also constructs an outdoor covered kiln yard consisting of bio-fuel fired kilns (utilizing wood and used cooking oil) and will also allow 24/7 student access to the art room for open lab time.

The college has had significant increases in studio arts course enrollments in recent years resulting in an increased need for proper studio lab space as well as digital media labs. Also the college maintains a relationship with Community Education and is exploring offering more community art classes in this space.

Vermilion Science: This project renovates three laboratories, four adjacent prep spaces, and two offices for a total of 5000 square feet in the Natural Science (NS) building. The existing GIS lab will be upgraded with new work stations, a key card system allowing 24/7 student access and technology upgrades including document cameras for a detailed view of equipment. An existing unused adjunct faculty office would be converted to a specialized computer mapping station allowing for collaborative work across the disciplines that will not be affected by rotating classroom schedules. Another vacant office would be converted to a mini (2-3 stations) AUTOCAD lab for Natural Science student use.

NHED Itasca, Hibbing, Rainy River, Vermilion-Initiatives & Demolition

Hibbing: Demolish obsolete space in buildings G, L & M and related connecting links, and renovate existing space.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:**Minnesota State Colleges and Universities Strategic Framework:*****Ensure access to an extraordinary education for all Minnesotans:***

Itasca Classroom: Classroom and associated lab spaces fail to meet ADA requirements and are extremely outdated, cramped, and inoperative for today's STEM curriculum. The STEM redesign will contribute to the retention and academic success of our students who increasingly are seeking STEM related careers to meet the growing workforce needs of the state. The renovation will advance regional academic plans through collaborations with Bemidji SU and Vermilion CC.

Itasca Biomass: Provide renewable and sustainable energy educational opportunities for students in engineering and natural resource programs. The significance of this is increasing with the natural resources program's partnership with the University of Minnesota to offer the 3rd year of a four-year forestry degree at ICC and the engineering department's partnership with Minnesota State University – Mankato to offer the 3rd and 4th years of an engineering degree through the Iron Range Engineering Program.

Rainy River: The project will allow collaboration with the region's upcoming technology in the nursing program by providing students with experience in digital record keeping, physical therapy exercise, modalities lab experience, and computer classroom training. With growing digital technology entering the medical field, this lab with hospital students meet the challenging demand in programs and have the capacity to sustain changes in the future.

Vermilion Art: Technological advances in studio arts means integrating technology and traditional media to create extraordinary education. Studio lab renovations are required for the traditional studio courses such as ceramics and painting that continue to be important to liberal arts offerings.

Vermilion Science: Vermilion students are well trained in GPS and GIS technology, utilizing Garmin and Trimble GPS with ArcPad and CAD

applications in the field, but data needs to be compiled, processed and analyzed in a lab with computers capable of loading and editing graphic intensive files producing high resolution maps. Use of this GIS Technology is becoming more ubiquitous throughout all fields of natural resource related careers and beginning in Fall of 2013 this specialized training will move from being a requirement in two of our natural resource programs to four, with a fifth program adding the requirement in FY15.

Hibbing: The project will provide access to improved technology, flexible classrooms, and modern learning environments. Current learning spaces have limited technology capabilities – sloped fixed seating classrooms of irregular shapes with low seat capacities. These variables constrain teaching opportunities and techniques. Student enrollment has shifted towards technical education, where program enrollments are at maximum levels. Current classroom space utilization in lecture type rooms are some of the lowest percentages in the MnSCU system.

Be the partner of choice to meet Minnesota's workforce and community needs:

Itasca Classroom: Healthcare industry is one of the top employers in the region. This project will attract and serve students pursuing nursing and pre-med careers, a growing demand within the region's workforce and the project will allow growth in environmental/biology related career tracks.

Itasca Biomass: The addition of woody biomass training will further strengthen and improve the ability an advanced workforce prepared in renewable and sustainable energy and methods of operation for these systems.

Rainy River: With the college's nursing clinic skills classes, RRCC continues to assist the local medical community by providing a well-trained workforce. Students become more engaged in their profession when they make connections between their skills in the classroom and work in the field. This creates an atmosphere that is crucial for their field.

Vermilion Art: The project will ensure Vermilion is the partner of choice for artists in the Arrowhead Region by offering extraordinary learning opportunities and up to date curriculum offerings to meet workforce needs in the arts. Artists are entrepreneurial according to the National Endowment for

NHED Itasca, Hibbing, Rainy River, Vermilion-Initiatives & Demolition

the Arts. With this entrepreneurial attitude and access to quality arts education, artists are more likely to remain in rural areas energizing the local work force and providing substantial economic impact.

Vermilion Science: Campus provide required training for numerous partner agencies, USGS, USFS, NPS, MN DNR, as well as meeting the growing needs of Minnesota communities for Water Quality and Water Treatment professionals. All of these programs are heavily laboratory science based and involve training in current GIS technology. On average, the cohort of programs affected by this project would graduate approximately 80 – 100 students, who seek to acquire employment within the region.

Hibbing: Customized Training (CT) department exceeds 5,000 served in annual headcount. Each year several hundred businesses depend on our CT department for incumbent workforce training to keep them at the leading edge of their professions. The mining industry, medical, and law enforcement fields are all key consumers of our CT programs.

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

Itasca Classroom: This project will take inefficient, inflexible, and outdated space and create a state of the art learning environment for students.

Itasca Biomass: Demonstrate that an education entity can do more than just educate students. It can create positive economic impacts to the region. Instead of relying on a main fuel source of natural gas, which is not sourced from Minnesota and provides very little local economic impact, ICC will be utilizing a fuel source that generates local economic activity.

Rainy River: The renovation of the Clinical Skills Lab and adjacent classroom will reduce the overall energy efficiency by reducing electrical costs. This project will result in a net neutral in total campus space utilization while maintaining the multi-use lecture classroom. The classroom area remains attached to the library for multi-use capabilities

Vermilion Art: Art classroom has seen little upgrading since it was constructed in 1971. Improvements to this space will greatly enhance teaching and learning in our visual arts courses, an integral component of our Liberal Arts curriculum. VCC is committed to assisting faculty with

integrating technology into their curriculum and providing instructors and students with technology-equipped classrooms. Increases in the use of blended and online courses, as well as increased faculty and student use of technology have necessitated the addition of smart classrooms and computer capabilities in many art media.

Vermilion Science: By enhancing student access and opportunities and collaborative efforts between programs, curriculum can be more effective with cross-disciplinary, unduplicated instruction that meets the needs of multiple programs.

Hibbing: Renovated classroom space and increased technology access will increase methods of course delivery, in alignment with current enrollment trends. Operating expenses will be reduced with the rightsized facility by using less energy and maintaining less square footage.

Institution Master Plans and Regional Collaborations: The current master plan identifies a number of classroom renovations within the next two years. The work described is in alignment with the goals of the facilities master plan, and is in alignment with the strategic goals of the college and NHED system to provide quality learning environments within the community and Arrowhead region.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: ICC has partnered with Itasca County for equipment funding for its Water Quality Lab. Itasca County has donated \$100,000 for equipment. In addition, the Itasca Water Legacy Partnership has created a grant writing committee to assist the college in grant requests. Vermilion campus has many partners (USGS, USFS, NPS, MN DNR) and these partners freely give of their time and expertise and, more importantly, provide field experiences for VCC students. They are not in a position to provide resources for updated campus labs or equipment.

Deferred Maintenance Backlog removed: Itasca project will reduce the backlog for this building by approximately 36%, as most of the backlog in the built in equipment for this building is located in the project area. The biomass will address two significant fuel-handling issues with the current boiler. First, it will update the wood chip transfer system from the chip hopper to the feed

NHED Itasca, Hibbing, Rainy River, Vermilion-Initiatives & Demolition

auger system. Second, it will address the chip size sensitivity of the current feed auger and injection system.

Rightsizing and Space Utilization Improvement: Itasca rightsizing recommends the renovation of the existing Biology lab to a modern science space. The intention is to re-use (refurbish and remodel) the existing space rather than build/add new space. Renovation will allow the college to modify the existing interior walls slightly to provide for a more supportive and flexible educational environment. Rainy River existing classroom/lab space will be reconfigured to prepare students to achieve the outcomes of the nursing education unit, including safe practice in contemporary health care environments, provide curriculum and instructional practices that reflect educational theory. Vermilion has relatively low space utilization compared to other campus classrooms (44%); the art room is used by students working on class projects during the evening and weekend hours, usage not currently captured in space utilization.

Energy efficiency and/or other Sustainability Improvements: The demolition (Hibbing) and reconfiguration of underutilized space on campus will increase classroom utilization. The renovation of mechanical and electrical systems on the campus will remove backlogs and increase efficiency. Itasca mechanical and engineering systems will be high efficiency. Biomass will allow ICC to transfer from its natural gas boiler as its main heat source to a more sustainable fuel source with a modern woody biomass boiler system. Vermilion will incorporate sustainable approaches to reduce energy including an outdoor kiln yard of alternative fueled kilns (wood and used cooking oil). Fuel consumed would be procured on site using Natural Resource Technology students and be safely stored on VCC forest property until needed. Used cooking oil will be recycled from campus food service operation.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Existing utilities in the older campus building is in need of renovation, in some case not meeting current code requirements or accepted standards. Electrical power supply systems in these buildings are in similar condition.

Building Operations Expenses: Hibbing renovation of the existing mechanical and electrical systems will improve operational efficiency and

reduce operating costs. The demolition of underutilized space will further decrease operation expenses. Itasca new system will provide estimated fuel cost savings in the range of \$18,000 to \$25,000 annually. Vermilion building operating expenses are expected to be reduced as a result of this project.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

Itasca Classroom: Delaying funding will only result in a loss of student enrollment and a real lost opportunity to expand current programming and future plans for enhanced opportunities in the science & health related fields.

Itasca Biomass: Partnerships with the Swedish companies and agencies presents an opportunity that is time sensitive; acting now positions MnSCU to serve as a leader in demonstrating the effective use of woody biomass.

Rainy River: Failure to graduate nursing students that are prepared for the facilities and equipment they will see in the "real world". Inability to meet the need for adequately trained nursing professionals in the local community and Minnesota-wide.

Vermilion: Art classes will continue to be held in a classroom with known health and safety concerns. Students may be less inclined to register for these classes and, possibly, look for other college alternatives. Delay to Natural Science upgrades to the classroom will limit the ability to display technical equipment which is core to the course content.

Hibbing: Delayed funding will result in continued issues related to air quality, and code compliance related to mechanical and electrical systems. The Buildings G, L, and M on the campus will result in continued increases in deferred maintenance for a building that is underutilized as classroom spaces presently.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

- Ken Simberg, Provost, Hibbing and Rainy River CC, 1515 East 25th Street Hibbing, MN 55746, Tel: 218-262-7241, kennethsimberg@hibbing.edu
- Mike Johnson, Provost, Itasca Community College, 1851 East Highway 169 Grand Rapids, MN 55744, 218.322.2401, Mike.johnson@itascacc.edu
- Dave Marshall, Dir. of Facilities & Auxiliary Services, Vermilion CC, 1900 East Camp Street, 218-235-2125, d.marshall@vcc.edu

Winona State University - Education Village, Phase I renovation

2014 STATE APPROPRIATION REQUEST: \$5,902,000

AGENCY PROJECT PRIORITY: 18 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Renovate faculty offices, classrooms, student labs, and observation rooms to create a holistic learning and mentoring environment
- Renovation of 18,816 GSF (FY2014)
- Addition of 1,000 GSF (FY2014)
- Eliminate \$8 million of deferred maintenance backlog
- Number of classrooms/labs impacted: 20
- FY2016 request of \$18.7 million for Phase II
 - Renovation of 63,880 GSF
 - Addition of 5,450 GSF

PROJECT DESCRIPTION:

The WSU predesign plan includes the wise reuse of three buildings and environs that will be renovated into a modern, integrated space that supports a truly transformative proposal--purposefully-designed specialty labs and classrooms for all education programs. The new space is critical to support the delivery of innovative curriculum that provides an extraordinary education for the preparation of teachers and school professionals.

The three buildings slated for renovation and reuse (Wabasha Hall, Wabasha Rec and the Cathedral School) are located 1-2 blocks from the NE corner of the main campus. For the purpose of this predesign we will refer to the renovation of the three buildings as the Wabasha Education Project. One of the buildings houses our current Child Care Center, which will remain as an important as part of the integrated approach which is referred to as the B-20 (Baby to Graduate and Extended) educational spectrum.

The renovated facilities will serve the faculty in four College of Education departments (Education, Special Education, Educational Leadership, and Counselor Education) and the faculty involved in what are referred to as content-area teacher education programs such as STEM, Health, Art,

Therapeutic Recreation, Outdoor Education, etc. Specialty spaces and sensible adjacencies will be equipped with the modern technologies, resources and equipment necessary for the preparation of tomorrow's teachers, counselors, coaches, mentors and educational leaders.

The Project also will provide space for the expanding Outreach and Continuing Education (OCED) and Graduate Studies programs that serve the needs of working learners and their employers. The project will convert outdated space into flexible, high tech space that can be used in multiple ways, such as for adult learning, workforce training (including displaced workers), and corporate and partnership meetings. It will offer an integrated approach to continuing education, graduate programming, and collaborative partnerships between the university and the communities that it serves.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The design supports diverse learning styles and the efficient delivery of instruction, taking full advantage of emerging methods and tools. The repurposed, technology-enabled, flexible classrooms will facilitate proven pedagogies and allow faculty and students to flourish as innovative methods are implemented. The design provides for innovative learning spaces and instructional delivery consistent with students' learning styles. New hybrid models that blend classroom and online learning opportunities will meet student demand. New pedagogical delivery and redesigned curriculum will be supported by the renovated spaces ensuring students, faculty and community will have access to extraordinary education.

Be the partner of choice to meet Minnesota's workforce and community needs:

The project will allow for enhanced partnerships with school districts, businesses, and agencies. Many of the departments slated for the new spaces already have strong ties to the community with programs such as the Free Clinic in Counselor Education and tutoring internships in Education and Child Care. Additionally, the design supports the need for more accessible and integrated space that will provide professional spaces for our expanding graduate and outreach efforts. The mission of our outreach and extended

Winona State University - Education Village, Phase I renovation

learning specifically addresses enhancing partnerships and serving our community. New space will support the expansion of these efforts.

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

The reuse and redesign of existing buildings that housed K-12 classrooms previously is wise stewardship not only for the university but for the community. WSU will continue to be a top value choice and this addition to our small, landlocked campus will finally address the critical need for additional general learning spaces and specialized spaces for one of our largest programs -- education.

PROJECT RATIONALE:

Nothing is more important to the future health of our communities than providing the finest education possible and encouraging and supporting those who are called to teach, to coach, to mentor, to counsel and to lead. Future teachers and their students will require more intentional preparation, support and inspiration. Hands-on practical, early clinical, team based and problem based learning has proven to be more effective in reaching and keeping top students and giving them the tools to excel. The Wabasha Education Project will be a big step in meeting this need for Minnesota. Winona State is known for its leadership in instructional technologies, the quality of its students, and it's wide ranging connections and service to the regional community. This is the right project at the right time for WSU to create a new home for remarkable learning and teacher preparation – addressing specifically areas of the most need for the region:

- The project will provide learning environments that dramatically improve the technological, experiential and collaborative learning experiences of the students while improving facility standards; a critical component of the program is to prepare future teachers, professionals and leaders. The inclusion of specialty learning “labs” will address the total lack of current space for those disciplines such as Special Education, Adaptive PE, STEM, Health Education and Language/Global Studies.
- The majority of spaces will contain the latest technology for remote observation and training, and several will include advanced simulation and virtual learning capabilities. Several classrooms will mimic real-life classroom settings with built in observation and co-teaching space in order to accommodate visiting K-12 students.

- Nationally and regionally, Outreach, Extension and Graduate Programs are being challenged to help more adults update their job skills, attain industry certifications, and complete baccalaureate and graduate degrees - often with new, hybrid learning opportunities.

Institution Master Plans and Regional Collaborations: In Minnesota and surrounding states 72 percent of school districts report shortages of new graduates prepared to teach in Special Education, Sciences, Math, Technology and Foreign Languages/English as a second language.

In Minnesota, 55.4% of the population aged 25 to 64 years does not have a college degree; 57.9% in Winona County does not. Clearly, demand exists for highly-skilled adult learners and working professionals and this demand will continue in the foreseeable future.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The selection of Wabasha Hall as the location for the College of Education was an alternative to building a new building directly adjacent to the main campus. Winona State University is located in the center of our community with limited choices for campus development. Wabasha Hall was acquired 8 years ago from the Cotter Catholic Schools for needed swing space during the renovation of Maxwell Hall. Our child care center moved at that time and occupies the entire first floor of Wabasha Hall. The Wabasha Education Project includes the redevelopment of Wabasha Hall and an adjacent (Cathedral School) elementary school. Two blocks from campus, this site is also adjacent to another building (Central School) owned by the Winona Public Schools. Central School’s proximity promotes a number of collaborative activities including the direct involvement of WSU students in district classrooms.

The two blocks envisioned for the Wabasha Education Project allows for WSU to expand its campus footprint to help accommodate enrollment growth while minimally impacting the campus neighborhood. The proposal calls for thoughtful re-use of school buildings that are not currently on the local tax rolls. The selected location supports curricular collaboration, minimally impacts the community, focusses on renovation and reduces deferred maintenance.

Campus Data:	2008	2009	2010	2011
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Winona State University - Education Village, Phase I renovation

FYE	7,952	8,172	8,391	8,294
Headcount	9,388	9,549	9,848	9,691
Space Use %	81%	89%	82%	85%
R & R (<i>per sq. ft.</i>)	\$1.21	\$2.56	\$1.19	\$0.54
FCI	0.09	0.09	0.10	0.11

Education Enrollments: The number of education majors in the College of Education and in the content areas is 2,035, which is about 20% of the total student body. The number of all education majors increased by 8% during the past 7 years (2006-2012).

Deferred Maintenance Backlog removed: The project will remove \$5.4 million of deferred maintenance in Wabasha Hall, thereby reducing the FCI from 0.30 to 0.11. Project also eliminates \$2.6 million of deferred maintenance in Cathedral Elementary, thereby lowering the FCI from 0.33 to 0.12.

Rightsizing and Space Utilization Improvement: Current space utilization rates of spaces primarily used for teacher education ranges from 85-100%. Current space utilization of the three buildings included in this proposed renovation project ranges from 0-30%. By renovating these three existing buildings, WSU will be able to even out space utilization rates amongst all campus buildings to better utilize all of our facilities.

Energy efficiency and/or other Sustainability Improvements: The design will incorporate sustainable design approaches as outlined in the Minnesota Sustainable Building Guidelines. The project is preliminarily scored as a LEED GOLD level project.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Project will add a 50 space parking lot to the campus. All other infrastructure is adequate for the project.

Building Operations Expenses: The following annual building operations expenses will be incurred: \$100,000 for building operations, \$150,000 for compensation and \$175,000 for the 1% renewal account.

- Operating: \$250,000 annually or \$2.80/sq. ft.
- Renewal spending @ \$1/SF: \$175,000

Debt Service: The annual debt service for this project will be \$396,567. WSU is currently at a debt service to operating revenue ratio of 0.93% and it would increase to 1.5% if the project is funded. This 1.5% is still well below the 3% MnSCU guideline.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding Delaying this project will keep the affected College of Education units in unappealing, inflexible spaces that do not improve the recruitment, training or equipping of future faculty who will lead in transforming education in Minnesota. New education programs that are sorely needed will not be started. If there is no delay the Wabasha and Cathedral buildings will be transformed and made new, and the College of Education units that it will house, those most important to the region today, will feel a spark of new talent, new ideas and a renewed spirit of innovation and commitment to excellence in education training. If this project is delayed, Wabasha Hall will continue to be a compromise "swing space" building, even while it houses preschool children – our future.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Anoka Technical College - Initiatives

2014 STATE APPROPRIATION REQUEST: \$1,500,000

AGENCY PROJECT PRIORITY: 19 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

Design, renovate, furnish, and equip space to meet workforce training needs

- Renovation of 10,070 GSF (Automotive Technology)
- Renovation of 31,955 GSF (Manufacturing Technology Hub)
- Each project cost is \$750,000 and a construction schedule of less than 18 months.
- Number of classrooms/labs impacted: 9
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Automotive: Renovation will update classrooms and equipment in order to accommodate the increased demand in the program and update curriculum to stay ahead of industry demand. This ever-changing industry demands updates including new diagnostic equipment. Mechanical infrastructure needs improvement to protect occupant health. Install carbon monoxide detectors and provide exhaust hose reels rather than existing in-floor/in-door ports to fix ventilation needs. Original in-floor vehicle hoists are broken, where parts are no longer available, and replaced with awkward overhead vehicle lifts that impede access and group instruction. Three new in-floor vehicle hoists would improve instructional access and group observation without interfering posts. Additional training space becomes available by converting an unused alcove and duplicate hallway into automotive bays. This reclaims two bays for college instruction, offsetting the two work bays used by high school students participating in training through STEP (Secondary Technical Education Program). The project additionally addresses environmental concerns by removing existing hoists and contaminated oil.

Manufacturing: Creates a workspace conducive to collaboration between Anoka Tech's Machine Trades, Welding and Mechanical Drafting and Design Technology programs. The proposed renovation will provide a collaborative environment where Design and Manufacturing students will interact while building on each other's abilities and skills. This will provide real world skills in team work, design and manufacturing. The collaborative environment additionally exposes prospective students to related programs. These combined programs incorporate Engineering, Math and Technology aspects of S.T.E.M. for college students as well as high school students in nearby communities participating in these training opportunities through STEP (Secondary Technical Education Program).

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Automotive: The Automotive program has experienced a 62% increase from 2007-2011. The department needs safety and energy updates in addition to equipment and technology updates in order to meet the increasing demand. The project includes acquisition of new equipment and installation of current equipment in order to create a competitive learning environment. Proposal will update the current automotive shop to mirror industry, attracting and retaining students. Request will update safety measures including air quality measures for carbon monoxide detection and exhaust and improving sight lines in the classrooms.

Manufacturing: The collaborative learning environment created by this project will closely reflect industry, better preparing students for employment. The project will provide an opportunity to facilitate capstone and combined capstone program for students. The three programs will have the opportunity to share up-to-date equipment, such as 3-Dimensional print, between several programs in an easily accessible location. The Hub creates a synergistic and innovative environment for students to develop multiple technical skills directly transferable to manufacturing trades.

Be the partner of choice to meet Minnesota's workforce and community needs:

Anoka Technical College - Initiatives

Automotive: Renovation would provide the needed and advanced space to adequately train students in advanced automotive technologies and skills in response to increased workforce needs. Skilled automotive technicians and workers continue to be needed in a variety of areas within the state. Anoka Tech meets business and industry need by partnering with area business and providing well-trained employees with highly developed skills. Automotive Technology Renovation will allow students to utilize newer and more advanced equipment to better serve the industry need and allow for teaching advanced skills through shared support. Updating the automotive lab will allow students to be trained in a real-world setting with the new automotive diagnostic equipment and repair technologies currently being used in the industry.

Manufacturing: Provides needed space to departments in response to increased industry need. The average age of the students in this program is 29. This is reflective of non-traditional students retraining for placement in the workforce. Moving these spaces provides added opportunity for current and future expansion of the Manufacturing department. The project provides an area to accommodate high school students enrolled in the Secondary Technical Education Program (STEP) program.

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

Automotive: Renovation would allow for more advance cooperation and efficient use of space for both STEP and Anoka Tech while also supporting the existing infrastructure through a more advanced and flexible work/classroom environment. To do so would better serve all students and maximize space while providing an opportunity to address needed maintenance that currently limits program growth and operations. The project will keep the automotive program current and will provide lighting and HVAC controls to improve energy efficiency.

Manufacturing: Bring programs together in one collaborative and interactive space at the college. Aligning Machine Trades, Mechanical Design and Welding to better serve students and maximize courses and create space efficiencies while providing a multidisciplinary learning environment. Repurposing the existing computer lab and classroom space for both Machine Trades and Mechanical Design will increase efficiency in classroom scheduling as well as providing access to similar technology for a more

diverse group of students. A common Computer Lab that will facilitate both Machine Trades and Mechanical Design students further maximizes space and efficiently provides curriculum to multiple programs.

Institution Master Plans and Regional Collaborations: The Automotive project further strengthens Anoka Tech’s relationship with Anoka-Hennepin school district by providing space for students to interact with one another and faculty while further building upon abilities and skills. The students enrolled in the Secondary Technical Education Program (STEP) program currently occupy this space. The project would allow the opportunity to better provide for the needs of these students, reducing scheduling conflict with shared equipment and strengthening the STEP partnership by ensuring a seamless transition from the STEP program to the Anoka Tech automotive program. For the Manufacturing Hub, the mechanical upgrade fits with the mechanical Master Plan conversion of the facility from a steam-system to a hot-water system, which helps reduce energy costs with lower temperature water and boilers.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Exploring the possible use of Repair and Replacement funding for potential hazardous materials survey as well as replacement of mechanical equipment/noisy, old, overhead air handling units.

Campus Data:	2008	2009	2010	2011
FYE	1,527	1,643	1,896	1,876
Headcount	3,090	3,405	3,643	3,531
Space Use %	72%	63%	68%	57%
R & R (per sq. ft.)	\$0.19	\$0.50	\$0.62	\$0.33
FCI	0.08	0.04	0.01	0.09

Deferred Maintenance Backlog removed:

The ventilation in the Automotive Technology is currently not tied to carbon monoxide sensors, and the original vehicle exhaust hook ups are inconvenient and insufficient for the usage. The sensors and hose reel exhaust hook ups will provide a health and safety improvement for the occupants of the space.

Anoka Technical College - Initiatives

The Manufacturing Hub includes the removal of aged and difficult to access overhead mechanical systems, including one unit that has been abandoned, with a replacement mechanical room for better access. Two of the five of these air handling units have recently been replaced and this would help update the remainder of the air handling units in the space.

Rightsizing and Space Utilization Improvement:

The Automotive project will allow the conversion of an unused alcove and a duplicated common corridor into usable space for training students. The Manufacturing Hub would allow the currently underutilized space from the suspended Plumbing Program to help fill the overflow need by the other combined already successful programs. This may enable potential enrollment of additional students that have been on waiting lists for these programs.

The Manufacturing Technology utilizes and rightsizes existing spaces to design collaborative workspace used by several programs. This project additionally proposes to utilize spaces currently underutilized due to suspension of the plumbing program which provide a growth opportunity to expand Machine Trades and Sheet Metal, and integrate the other programs.

Energy efficiency and/or other Sustainability Improvements:

Improved indoor air quality is a sustainability improvement for the health of the occupants in the space.

In the Manufacturing Hub, the implementation of a part of the mechanical Master Plan conversion, from steam- to hot water- mechanical units, allows lower temperature fluid to condition the space, with less energy spent at the boilers to generate the lower temperature.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Current infrastructure is not impacted by this project. The roads, driveways, parking lots and drainage remain largely unaffected.

In the Manufacturing Hub, the jib crane by the loading dock may require specific alignment of the flatbed truck for unloading stock material.

Building Operations Expenses: Energy reductions should be realized if the make-up air unit has been running in excess of what the sensors control and by allowing the doors to remain closed when engines are running during colder weather.

Removing the abandoned mechanical unit over the faculty office as well as the original 1960's era, noisy mechanical unit over the ceiling of the computer lab and replacing with a newer, properly sized unit will dampen noise transmission into lecture spaces as well as reduce electrical energy consumption and thus operating expenses.

- Operating – Space being repurposed, operating costs will remain neutral. The replacement of HVAC equipment provides a modest savings in energy consumption.
- Renewal spending @ \$1/SF: \$750,000 requested.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding The alcove and hallway space sit vacant while the program has a waiting list of students that needs to be turned away. In addition, the indoor air quality remains a concern, without carbon monoxide sensors tied to makeup air to ventilate vehicle exhaust in the enclosed garage space, primarily during the heating season from September through May.

If delayed, the area of the suspended Plumbing Program sits empty, underutilized, while the programs proposed to fill the space have waiting lists of students that may decide to go elsewhere for education.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Saint Paul College - Health and Science Alliance Center addition

2014 STATE APPROPRIATION REQUEST: \$14,482,000

AGENCY PROJECT PRIORITY: 20 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, Health and Science Alliance Center - \$1,500,000 (design)

Project At A Glance:

- Accommodate the enrollment growth to meet current health and STEM needs and new health programs
- Renovation of 3,248 GSF
- Addition of 36,770 GSF
- Demolition of 8,000 GSF
- Provide 'one-stop shop' for Student Services
- Number of classrooms/labs impacted: 10
- Provide the campus a competitive edge in attracting and retaining students
- Potential increasing tuition revenue by \$885,000 per year

PROJECT DESCRIPTION:

The project seeks to construct a 36,770 GSF Health & Science Alliance Center (HSAC) addition at Saint Paul College to address the growing demand and inadequate available space for health and science programs offered by the College. In the last 12 years, the College's overall enrollment has grown more than 86%, primarily due to a change in mission from a technical college to a comprehensive community and technical college, yet the College's square footage devoted to science and health courses has not increased. Between 2010 and 2012, the College's enrollment in Science, Technology, Engineering, and Math (STEM) increased by 25.6%. In the same period, enrollment in Health programs grew by 2.7%, primarily due to capacity constraints related to maximum cohort sizes and selective admissions. In the fall semester of 2012, existing space utilization of chemistry, biology, and math labs ranged from 141% to 162%. As a result, a bottleneck currently exists in health and science program enrollment, specifically in the lab sciences such as biology and chemistry that are core requirements of allied health programs. On-going demand for more STEM

and health courses has grown, but lab and related classroom space constraints limit the number of STEM and health courses that can be taught.

The proposed addition will create new program space in health and STEM, including two Health SIM labs, four Science/STEM labs, and two flexible Health/STEM classrooms/labs, adding a total of 86 FYEs in STEM and 96 FYEs in health. As employment demands change, all flexible classroom/lab spaces will have the potential to be transformed into new health programs, including pharmacy technician, phlebotomy, physical therapy assistant, audiology assistant, medical assistant, and occupational therapy assistant. The addition will also increase access to four-year baccalaureate programs by creating a University Center and expand workforce opportunities by creating two flexible Business & Industry classrooms in order to eliminate current leased space costs because the College can consolidate the Workforce Development and Customized Training program into a Business and Industry Center on the main campus. The proposed addition will further reduce on-going operating costs by using solar panels to offset 2% of the new structure's energy costs. The addition will be attached to the western end of the main campus building and will be offset by demolition of older space with deferred maintenance needs.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The project will build upon Saint Paul College's tradition of providing access to extraordinary education to the most diverse student body in the MnSCU System. The College also has a tradition of providing an extraordinary education with one of the highest percentages of student engagement in the United States as identified by the Community College Survey of Student Engagement (CCSSE) and a high graduation rate which warranted being ranked the #1 Community College in the nation by the Washington Monthly Magazine in 2010. The construction of a new Health and Science Alliance Center embodies this tradition of providing access to an extraordinary education by ensuring greater access to high-demand, high-growth health and science jobs for the College's uniquely diverse student body, many of whom have not had sufficient access to STEM programs and career

Saint Paul College - Health and Science Alliance Center addition

prospects, are place bound, and have had more success in a face-to-face learning environment.

Saint Paul College has numerous existing health career programs, rapidly growing math and science programs, and partnerships that attract students. Due to capacity constraints, the College is unable to meet the growing demand for these programs without additional science and health labs. Specifically, some biology and chemistry courses have waiting lists of up to 60 students (or 18%) of the total seats available. As a result, potential Saint Paul College students cannot attend and must be turned away each semester. Programs that rely on this addition for continued growth include:

- All STEM course offerings that lead to an A.S. or A.A. degree.
- A.S. & A.A.S. degree programs in Biomedical Engineering Tech and pre-engineering programs.
- New health programs, including pharmacy technician, phlebotomy, physical therapy assistant, audiology assistant, medical assistant, and occupational therapy assistant.
- Existing articulation agreements that exist with more than 17 colleges or universities in health and STEM programs.

Be the partner of choice to meet Minnesota's workforce and community needs:

The College's health programs have a history of meeting Minnesota's workforce and community needs. Graduate placement rates in FY2010 were high in practical nursing (100% for Diploma, 94.7% for AAS Degree), medical laboratory technician (71.4%), respiratory care practitioner (92.9%), and health unit coordinator certificate (71.4%). Graduates of these programs fill workforce shortages that are a vital resource for the City of Saint Paul and the State of Minnesota. Regional demand for employment is expected to increase in STEM and health occupations. For example, by 2020, the Minnesota Department of Economic and Employment Development (DEED) currently projects 20.4% employment growth for medical and clinical laboratory technicians in Minnesota and 15.2% employment growth in this occupation in the Twin Cities metropolitan area. Outpatient care centers are expected to have 55.1% job growth in the Twin Cities by 2019. Over the past three years (2010-2012), enrollment in math and sciences courses at Saint Paul College leading to engineering and health careers has increased by 60% in chemistry and 22% in all math and science courses. This has resulted in the development of on-line courses which still do not meet the

student demand as evidenced by wait lists of up to 60 students for the face-to-face entry level biology and chemistry courses.

With additional, focused space, the Health & Science Alliance Center (HSAC) will also allow expansion of the following programs in addition to the advantages outlined above:

- Expansion of science and math sections offered to a diverse student body.
- Expansion of health programs, including pharmacy technician, phlebotomy, physical therapy assistant, audiology assistant, medical assistant, and occupational therapy assistant. Based on the most up-to-date employment projections from DEED, medical and health services jobs will grow 16% by 2019.
- Provision of additional educational options, retraining, and degrees for adults currently employed in the bioscience, health, engineering, and science industries.
- Expansion of the partnership with Metropolitan State University by preparing a growing number of students for transfer to baccalaureate STEM programs.

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

The project seeks to increase capacity to meet the growing demand for high-wage health and science programs. The facility has the potential to immediately add 86 FyEs in STEM and 96 FyEs in health programs, thereby increasing tuition revenue by \$885,000/year that can be used to meet operational costs and provide the highest value/most affordable option for students, employers, communities and taxpayers. New space will be built to maximize space utilization and space flexibility, thereby increasing academic efficiency and reducing costs.

Institution Master Plans and Regional Collaborations: This project is modified from Component #1 of the College's Master Facilities Plan by refocusing on Health & Science programs in a smaller addition in lieu of a freestanding building, and provides additional space to support the priorities of the Strategic Plan. The project also supports priorities of the Master Academic Plan goal to provide seamless, comprehensive learning opportunities for diverse, life-long learners, and partner with other higher education institutions.

Saint Paul College - Health and Science Alliance Center addition

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: Saint Paul College seeks to expand its partnership with Metropolitan State University by preparing a growing number of students for transfer to baccalaureate STEM programs. The College is also partnering with the Friends of Saint Paul College Foundation to collaborate with community and corporate foundations for fundraising purposes.

Campus Data:	2008	2009	2010	2011
FYE	3,499	3,785	4,562	4,590
Headcount	8,013	8,731	9,625	9,558
Space Use %	132	99	93	83
R & R (<i>per sq. ft.</i>)	2.18	1.59	2.59	1.34
FCI	0.18	0.07	0.09	0.09

Deferred Maintenance Backlog removed: By demolishing 8,000 GSF of space required for the early learning center with a deferred maintenance backlog, the FCI for the west tower will be reduced from 0.19 to 0.18.

Rightsizing and Space Utilization Improvement: In Fall 2012, existing space utilization of chemistry, biology, and math labs ranged from 141% to 162%. High space utilization in these subjects has prevented additional laboratory sections from being added to meet current student demand. New construction will allow the College to meet student demand and continue to maximize space utilization through the use of flexible classrooms and shared laboratory spaces. All newly constructed spaces will be designed to serve multiple educational purposes.

Energy efficiency and/or other Sustainability Improvements: The HSAC Addition will use heating from District Energy Saint Paul, which uses wood chips (biomass), natural gas, oil or clean-burning coal. The project will incorporate energy recovery, day-lighting and control strategies. The project will be built as an addition adjacent to the existing west tower, thereby minimizing the additional exterior envelope. To help meet B3 Guidelines, solar photovoltaic panels are currently in the project scope to reduce the new building's operating energy costs by 2%.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: This project will add new utility infrastructure, included in the project budget, to connect with city services. A partnership with District Energy will maximize energy efficiency.

Building Operations Expenses: Cost for operations of the HSAC project, including utilities, equipment, maintenance and repair, will be approximately \$166,000 per year.

- Operating: \$4.51/SF/year and \$166,000/year
- Renewal spending @ \$1/SF: \$36,770

Debt Service: The college's current average debt service is \$309,691. If funded, this project will add approximately \$176,317 in average annual debt service.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding: Saint Paul College increased its enrollment from the fall of 2011 to the fall of 2012 by 5.8 percent – the highest in the Twin Cities. The College minority student population is greater than its majority student population, most of whom are underserved. Despite all odds, numerous obstacles to learning, and a poor economy, the College placement rate remains high at 72% (2010). The most profound impact of delayed funding is the lost opportunity for our diverse student population to have sufficient sections of STEM and health classes available to continue their education at the lowest cost and at a location where they feel comfortable, supported and successful.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Century College - Classroom & Workforce Alignment addition

2014 STATE APPROPRIATION REQUEST: \$1,000,000

AGENCY PROJECT PRIORITY: 21 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: FY2012, Classroom Addition - \$5,000,000 (Design and Construction)

Project At A Glance:

- To meet critical needs for more classrooms by adding flexible learning labs that will prepare students for highly skilled jobs
- Renovation and Renewal of 5,000 GSF
- Addition of 25,584 GSF
- FY2016 request of \$12.4 million for the construction
- Number of classrooms/labs impacted: 10
- LEED Gold or Platinum being proposed
- Modular spaces for flexibility to meet constant changing demands in future programming

PROJECT DESCRIPTION:

A proposed new facility and existing space renovation designed to meet critical needs for classroom and learning space by adding flexible learning labs that will prepare students for highly skilled jobs. The project builds on the 2010 predesign incorporating recent input from college leadership, deans, staff and faculty.

The proposed project adds new space and transforms existing outdated spaces into highly flexible, technologically relevant, multi-use learning labs and active learning classrooms. Workforce Learning Labs, the nucleus for the project, are flexible, reconfigurable spaces that are technologically equipped for fostering training on leading edge equipment or for use in a more traditional classroom format. The labs are grouped with active learning classrooms, forming modules where students engage in multiple modes of learning within close proximity.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

The College is out of space. Century College's classroom utilization rate is 105%, which is one of the highest in the system. In order for the college to attain the average classroom utilization rate of the metro colleges (82%), Century would need to add 20 new classrooms now, irrespective of any projected enrollment growth. In order for the college to attain the average classroom utilization rate of all System colleges (71%), the College would need to add 42 classrooms now. By adding 10 classrooms, we are slightly improving our utilization rate and will be able to accommodate some of the projected growth. Century College also has the highest course saturation/fill rate of all colleges in the system. If the College's saturation rate (the number of seats filled per course section) were comparable to other Colleges in the system, the College would need to add 28 new classrooms now.

The College's original bonding request in 2010 was for 26 all-purpose classrooms. The College was asked to separate the proposal into two projects. Six of the 26 classrooms originally requested were funded in the 2012 bill.

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Because of lack of available space on campus, we are limiting access to extraordinary education. Since we are already fully utilizing our classroom space, many courses are being taught in less than adequate space, inhibiting our ability to increase student success. Adding new classrooms will allow us to decrease our extremely high utilization rates and improve the overall quality of our available classrooms.

The College is currently unable to offer necessary courses for a full collaboration with its university partners due to limited available space. The project will increase access to baccalaureate programs and enable greater collaboration among colleges and universities in courses, academic programs, and student services.

The creation of flexible learning spaces will contribute to academic success of students traditionally underrepresented in higher education. Century College enrolls a large number of underrepresented students. Nearly 4,000 students are persons of color (36%), more than 6,000 students meet the

Century College - Classroom & Workforce Alignment addition

Federal definition of first-generation college students (60%) and over 5,000 are defined as low-income by the Federal Pell Grant Program (48%).

Century's Bridge to Success program, built on proven student retention and completion strategies such as New Student Seminars (NSS), Intrusive Advising, Tutors Linked to Courses, and Learning Communities, serves underrepresented students at much higher percentages than other courses. The percentage of students of color enrolled in NSS--which will number 1,500 in FY2013, is typically double the percentage enrolled at Century as a whole. The seminars of 25 students per section are currently held in classrooms designed to seat a maximum of 20 students, with no room for the small group breakouts that are a critical part of the curriculum. The College can neither increase the number of sections offered nor properly serve currently enrolled students given the existing classroom spaces. The learning labs will increase student success by providing both additional space and better designed space that can be configured to accommodate larger groups of students.

Be the partner of choice to meet Minnesota's workforce and community needs:

The lack of space has made it nearly impossible to develop strategic partnerships with area businesses. The credit programs are the primary users of learning spaces on campus, while the College's CECT programs, which enroll over 10,000 students, utilizes space only when it is available. Non-traditional academic formats such as accelerated or "boot camp" formats requested by industry cannot be accommodated when the learning spaces are not consistently available.

Based on the East Metro Environmental Scan, Century is very deeply invested in its ability to meet the workforce needs in healthcare and human services. However, the immediate economic development needs of our community would require Century (in partnership with the other east Metro colleges) to expand its resources across other industry sectors, specifically, the engineering, applied technologies and advanced manufacturing.

The flexible, technologically based, workforce Learning Labs are completely modular, interdisciplinary, and amenable to all STEM programs--they work equally well for sciences, technology, arts and humanities—and will help to serve current and emerging programs and workforce markets.

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

Century operates very efficiently relative to other institutions in the system. Century College's utilization rate and saturation rate are among the highest in the system. The College's gross square feet per FYE student and operating costs per student are among the lowest in the system. Given these rates, the operating costs for this space should be lower than at most other colleges in the system.

The proposed project also demonstrates an investment to preserve and protect facilities, infrastructure and reduce operating costs by renovating 1,000 square feet of existing campus space, removing backlog and reducing FCI.

By renovating dated classroom space that no longer meets the educational needs of students, the project maximizes the efficient use of existing space on campus or within the region and creates flexible space with greater capacity for changes in program utilization and/or individual program growth.

The College invests more of its own operating funds in R&R per square foot than most other colleges in the system. The college is planning to continue that trend into the future.

The College is decreasing its utility costs through HVAC and other system enhancements by incorporating PBEEP recommendations. A key to a higher utilization is to increase enrollment while holding down or maintaining costs. By continuing to maintain our very high utilization and course fill rates, the College will be able to enroll more students without having to add unnecessary expenses.

The College will continue to explore other alternatives, such as lease space and online education. Online curriculum is offered in 871 course sections affecting over 5,285 students. This approach to curriculum delivery eliminates 15 classrooms and 12,000 square feet of instructional space from the campus.

Institution Master Plans and Regional Collaborations: The College is partnering with other east metro area colleges to address the needs in

Century College - Classroom & Workforce Alignment addition

important industry sectors, specifically, the applied technologies and advanced manufacturing. The project will allow the College to offer necessary courses in collaboration with its university partners, Metropolitan State University and Minnesota State University-Mankato.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The campus has funded the predesign and will be funding portions of the technology and furniture from our own reserves. Industry partners may be sought for in-kind donations of equipment and technology.

Campus Data:	2008	2009	2010	2011
FYE	6,287	6,714	7,650	7,879
Headcount	12,329	13,030	14,766	15,219
Space Use %	130%	113%	105%	105%
R & R (<i>per sq. ft.</i>)	\$2.52	\$1.76	\$2.30	\$4.71
FCI	0.26	0.21	0.21	0.23

Deferred Maintenance Backlog removed: This project eliminates \$334,000 in backlog and reducing the FCI of building J from .20 to .00.

Rightsizing and Space Utilization Improvement: This project will help address continued moderate enrollment growth. Even with the building addition, the College’s utilization rate will continue to be above 100%.

Energy efficiency and/or other Sustainability Improvements: The Facility has received ongoing updates to Mechanical and Electrical systems and envelope improvements, which have improved energy efficiency. This project will further improve the Campus Energy efficiency and will be a LEED Gold or Platinum performing building and meet SB2030 Sustainable Challenge and will investigate the use of solar panel energy to further offset energy use.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The current utility infrastructure is adequate but is reaching capacity. Dollars have been allocated within the project budget for some added equipment to support this addition & renovation. Additionally, the Link 6 Classroom Project, currently under construction, will go online within the 2013-2014 academic year, providing a minimum of 7-8 months of energy load data, which will be captured prior to

the design of the Workforce Alignment project, and used to confirm capacity and inform design.

Building Operations Expenses: The combined utility costs projected for the new space account for an addition of approximately \$1.26 per gross square foot, not accounting for potential offsets of energy realized from solar panels. The College invests more of its own operating funds in R&R per square foot than most other colleges in the system. The college is planning to continue that trend into the future.

Debt Service: The college has about \$500,000 in average annual debt service. The new project is expected to add another \$250,000 in annual debt service.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding The College is already operating well above system averages for utilization, students per square foot and saturation rates with 92% of available seat filled and 105% utilization. Without additional space, we are jeopardizing our ability to improve student success and our ability to ensure access to an extraordinary education, as well not being able to accommodate any projected enrollment growth.

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South Central College - STEM & Healthcare Workforce renovation

2014 STATE APPROPRIATION REQUEST: \$7,467,000

AGENCY PROJECT PRIORITY: 22 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance

- Renovation of laboratory, classroom, office spaces for healthcare, STEM, computer, and agribusiness
- Renovation and Renewal of 90,890 GSF
- Number of classrooms/labs impacted: 31
- Eliminate \$2.9 million of deferred maintenance backlog
- Increase enrollment and expand healthcare program facilities

PROJECT DESCRIPTION:

This project will renovate approximately 19,765 sq. ft. and renew 71,125 GSF for laboratory, classroom, and office spaces. This includes abating asbestos from 21,600 GSF replacing 12,210 GSF of roof, and upgrading 47,705 GSF of HVAC systems (original to the 1968 building).

The purpose of this project is to renovate healthcare, STEM, computer, and agribusiness laboratory and classroom spaces to create student and faculty environments that simulate real-world technical experiences and prepare students to enter the workforce. These enhanced spaces will foster more efficient use of space, encourage and support collaboration, and increase access and opportunities for alliance with business and industry partners.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

The greatest numbers of jobs projected for 2009–2019 in southern Minnesota are in health care, STEM, and manufacturing occupations. Workforce data indicates

- DEED projections for 2009–2019 indicate a 16.3% growing in healthcare technical occupations and a 22.4% growth in healthcare support

occupations. Personal care aides, home health aides, nursing aides, and registered nurses are listed as the first, second, sixth, and eighth most in demand occupations in south central Minnesota.

- DEED projections for 2009–2019 show a 3.2% growth in the Installation, Maintenance, and Repair occupations (8,985 projected employment).
- Welders are listed as the seventh most in demand job in today's market at an average wage of \$36,060/yr.

The renovation and renewal requested in this bonding project directly supports programs that serve these workforce needs. In addition, several of these programs have A.S. degrees (Engineering Foundations, Broadfield Health and Engineering, Biology) that articulate to four-year universities (Minnesota State, Mankato) within the MnSCU system. Future programs (Chemistry, Agronomy) are currently developing partnerships and articulation agreements with four-year universities (Minnesota State, Mankato; Southwest Minnesota State).

The requested bonding will also allow the college to situate classrooms, labs, and faculty offices for related programs in the same physical area (i.e., the health corridor, centralized STEM area). This will build familiarity to the layout of a four-year university (where individual buildings are allocated for business, science, health, etc.) and allow students to interact with others in similar fields of study.

Finally, moving the TRIO: SSS offices next to the new advising center that SCC is currently developing (will house our Access and Opportunity advisor) supports the academic success of underrepresented students (as defined by MnSCU and the federal government). The veteran's resource center will serve the large number of National Guard members who recently returned to Minnesota and support our mission as a Beyond the Yellow Ribbon organization.

Be the partner of choice to meet Minnesota's workforce and community needs:

As demonstrated above, the college implements programs based on the current workforce demand. However, we also take into account the needs of our industry, workforce, and community partners. In doing so, we have been able to successfully start several programs (Mechatronics Engineering Technology, Medical Assistant, etc.) within the past five years. As we

South Central College - STEM & Healthcare Workforce renovation

continue this model, several new programs have been identified to address our community and service region's current needs including industrial maintenance, welding, agronomy, and additional STEM programs (biotechnology, chemistry). Many of these programs require lab space that is up-to-date with the latest technology. As the majority of the spaces identified for these labs have not been renovated since the campus was built in 1968, SCC will not be able to offer students an extraordinary (or even relevant) education without updating these spaces.

In addition, the flexible, multipurpose labs resulting from this project will provide hands-on and experiential learning opportunities in addition to traditional course delivery. In turn, this will increase SCC's retention, completion, and transfer rates by providing opportunities that fulfill the needs of kinesthetic learners.

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

The college currently uses ITV technology to connect our campuses and decrease costs for course delivery. Using this technology also provides us with the ability to connect with other MnSCU colleges and universities that provide common academic programs. This allows students to take classes at SCC after they have articulated to a four-year university; for example, Southwest Minnesota State. The addition of new technology (similar to ITV) in the fab lab will allow students to connect their peers in fab labs across the United States.

The college looked at several different options for this project, including building an addition or purchasing an external building for additional STEM labs and classroom space. However, after examining these options, the administrative team determined that by rightsizing classrooms and placing similar programs near each other in the building (i.e. a health care corridor), an efficiency of space would be created and savings would be realized.

The college has maintained a very strong CFI over the past few years (2011 CFI: 6.69). The college has been conservative in the anticipation of a capital bonding project to cover some of these costs. That being said, the college has still invested heavily in the college's facilities over the last three years (\$2.70 R&R 3-year average) and has worked hard to secure external funding

through grants and partnerships that allowed us to pursue and implement additional programming.

Institution Master Plans and Regional Collaborations: This project heavily supports regional collaboration by providing updated spaces for programs that have been developed in partnership with the college's industry, workforce, and community partners. For example, SCC is currently working with Minnesota West to establish a center of agriculture for southern Minnesota. This includes sharing a Dean of Agriculture between the two campuses, reinvigorating Minnesota West's agronomy program, and reinvigorating the Agronomy lab to meet current industry standards so that the college can offer an Agronomy AS degree that articulates with Southwest Minnesota State.

A second example of this regional collaboration is college's partnership with the South Central Workforce Center (SCWC). As a result of this partnership, two key programs have been identified and are in development (welding, industrial maintenance). SCWC has committed resources, including financial support, for these programs. They have secured a FastTRAC grant to provide pre-manufacturing and integrated welding courses to dislocated and low-income workers across southern Minnesota. This will serve as a pathway into the new credit-based welding and industrial maintenance programs, as well as other established manufacturing-based programs at SCC (CIM, mechatronics, etc.).

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The college has made a substantial effort to secure external funding for program initiatives. As a result of these efforts, the college has brought in over \$9 million in external grants (since FY09) to implement programs and student services that support these workforce demands. However, in most cases this funding comes with restrictions, so although we've been able to develop curriculum, buy equipment, and hire personnel for extraordinary education programs, we have been limited in our ability to make environmental changes to support these programs. As a result, classroom and lab renovations and other facility changes must be supported through alternative funding.

Campus Data:	2008	2009	2010	2011	2012
FYE	1,998	2,174	2,416	2,528	2,347

South Central College - STEM & Healthcare Workforce renovation

Headcount	3,482	3,534	4,125	4,087	4,787
Space Use %	108%	86%	80%	83%	88%
R & R (<i>per sq. ft.</i>)	\$0.90	\$0.70	\$1.53	\$3.13	\$3.50
FCI	0.10	0.11	0.11	0.14	0.15

Deferred Maintenance Backlog removed: The College’s current building FCI is listed as 0.15 for 2012. An update to the MnSCU Accountability Dashboard released on August 22 places the college in the red (needs attention) for the FCI indicator. If the college is awarded this project then approximately 2.9 million of deferred maintenance backlog will be removed and the FCI will decrease to 0.11.

Rightsizing and Space Utilization Improvement: Funding for this project will allow the college to rightsize classroom and lab spaces that have not been renovated since the North Mankato campus was built in 1968. The college’s current overall space utilization is 88%, but the percentage is much lower for the spaces identified in this project. By repurposing the targeted areas and creating multipurpose labs, classrooms, and learning spaces, SCC hopes to increase the space utilization for the selected areas as follows:

- Health corridor: 80% to 95%
- STEM and IT/Ag areas: 50% to 80%

Energy efficiency and/or other Sustainability Improvements: The college is requesting funding to replace all four of the building’s air handlers with new 2012 HVAC units for a significant savings on utility costs. Three of the four units that will be replaced are 1968 models, and the fourth is a 1987 model.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Existing utility infrastructure will support the proposed work. We are not requesting expansions to the building.

Building Operations Expenses: Debt Service is the only thing that will be impacted. The sq. footage of the building will remain the same as we are not requesting any expansions, only to repurpose existing rooms. Although the new science labs will require hoods, the energy savings from the new HVAC units will cover the increased costs to the run these hoods.

- Operating: No impact – no new square footage

- Renewal spending @ \$1/SF: Approximately \$3/sq. ft. for the past two yrs.

Debt Service: Debt service for this project will peak in 2018 at \$157,000. SCC projects an R&R of 3.52 for 2012 making our average over the past three years approximately \$2.70/sq. ft. compared to the system requirement of \$1.00/sq. ft.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

- Several of the college’s classrooms, labs, and systems will remain at 1968 levels.
- Will not be able to offer an A.S. in agronomy or properly support the Southern Minnesota Center of Agriculture.
- TRIO: SSS offices will remain in the far corner of the building isolating these students from the main student population.
- Labs for new programs (physics, fab lab) will have limited capabilities affecting our ability to offer students an extraordinary education.
- Additional welding stations will not be added resulting in the ability to serve a limited number of students at one time. This is not cost effective.

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St. Cloud State University-Student Health & Academic renovation

2014 STATE APPROPRIATION REQUEST: \$865,000

AGENCY PROJECT PRIORITY: 23 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Co-locate 4 student health services programs into a historic facility that is currently not in use.
- Renovation of 43,291 GSF
- Addition of new floor, 15,562 GSF (Mezzanine space)
- FY2016 request of \$15 million for the construction
- Eliminate \$3.8 million of deferred maintenance backlog
- Strengthen ties with local medical communities
- Utilizing existing space for additional square footage without creating new footprint

PROJECT DESCRIPTION:

This capital budget request is for the renovation of Eastman Hall, co-locating Student Health Services (SHS), Counseling and Psychological Services (CAPS), Human Performance Lab (HPL) and U-Choose in Eastman Hall. The project aligns with the University's mission of preparing students for life, work, and citizenship. Specifically, our strategic focus of an Integrated Student Experience frames the design through linkages between learning in and outside of the classroom, linkages between career choices and experiential learning, work force development through partnerships and community outreach and accessible service delivery.

From the inception of this work, our commitment is to align the project design to support sustainability and stewardship of place by repurposing a historic facility, currently not in use, that highlights its location by the Mississippi River. This project increases square footage but not cubic footage with the use of air space in the gymnasium, resulting in increased energy efficiency and facility productivity.

The co-location of these programs will address the fractured and insufficient spaces that limit our ability to serve students. In addition to creating

efficiencies by co-locating SHS and CAPS, the renovation will provide students with easier access to U Choose (the campus alcohol and drug education program), health education services and HPL, in the School of Health and Human Service. It will provide an improved retail pharmacy, the addition of diagnostic imaging and enhanced laboratory space to support clinic functions. Improving these professional spaces will allow existing academic programs, such as radiologic technology, to offer more real world, collaborative experiences to students.

When the renovation is completed, it is anticipated that the existing SHS space in Hill Hall will return to its original use as a residence hall and the existing CAPS clinic in Stewart Hall and HPL program in Halenbeck Hall will be re-purposed for academic space. The costs for any such re-purposing are not included in this project.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

- Supports redesign of the classroom experience in needed health related areas such as radiologic technology, medical laboratory science, nursing, community health, counseling and kinesiology. This includes multi-purpose spaces that are flexible and utilize technology to enhance learning.
- Expansion of program space in the medical clinic, pharmacy, counseling, human performance lab, health promotion and alcohol and drug programs along with the addition of on-site radiologic imaging provides opportunities for St. Cloud Technical and Community College (SCTCC) and SCSU students to have clinical experiences, job shadowing, research opportunities, internship and practicum experiences. Because CAPS is an accredited counseling center, SCSU serves as a location for students to obtain clinical experiences to complete their academic degrees from state higher education institutions and due to space limitations, we are limited in our ability to provide this experience to more students.
- Supports employer expectations that students will have applied learning experiences to better prepare them for the work force.
- Supports our commitment to development of the whole student. Given the changing demographics and needs of the student body, greater

St. Cloud State University-Student Health & Academic renovation

integration and collaboration of programs is required. For example, we have seen an increase of 398% from 2001 to 2011 in our students with mental/emotional disabilities requesting support services. Our student-veteran population has increased from 521 students in 2011 to over 600 today. These changes require us to build partnerships and linkages throughout campus to help these students succeed.

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

- Enhance collaboration with SCTCC for student services. We have seen an increase in SCTCC visits to our clinic from 18 visits in 2002 to 312 visits in 2012.
- The completed project will encourage more experiential learning opportunities, preparing students for the workforce, For instance, the remodeled space will provide greater opportunities to engage students in Medical Lab Science program via shared use of our clinic labs, designed large enough to serve as a working/ teaching space.
- Accommodate anticipated demand for university graduates in health sciences – projected to increase 23.27% (3,033 total new hires needed) from 2009 to 2019 for medical/radiological/nuclear med technicians (Source: DEED analysis & DEED Labor Market Info Office, MN Employment Projections).
- Strengthen ties with the local professional and medical communities including CentraCare, Central MN Heart Center, St Cloud Hospital and the St Cloud Police Department, and city of St. Cloud.
- Health care remains among the top areas for job opportunities for 2010 and beyond. Registered nurses are among the top occupations in demand for all regions of Minnesota.

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

- The entire amount of Eastman hall’s deferred maintenance will be eliminated (\$3.836 million), decreasing need for future R & R expenditures
- Existing systems will be replaced with more energy-efficient systems
- The building’s Facility Condition Index (FCI) will be decreased from .31 to 0.00, reducing the need to use campus R & R funds
- Renovating an existing structure is more cost effective

- Multi-purpose rooms will provide increased opportunity for academic collaboration
- Backfilling current CAPS space in Stewart hall and HPL program in Halenbeck hall with co-located Academic programs will aid SCSU re-organization efforts & return spaces back to academic use.
- Although not on the Historic register, renovating and re-purposing this structure by adding a floor within the building has important local and regional significance.

Institution Master Plan and Regional Collaborations: This project supports many of the items discussed in the 2010 campus master plan.

With Eastman Hall being located near a campus edge, it will support the master plan to push services and programs that have community connections closer to the perimeter of the campus. There will be parking stalls near the building that will be designated “visitor parking”, which will provide improved parking access It will also make access to the services offered more convenient to students who are living off-campus. By incorporating a ground floor gathering space, café, and exterior patio area overlooking the river, it will provide interior and exterior spaces that “allow and encourage lingering/gathering/incidental social interactions.”

- An integrated health service facility is identified as a need in the master plan to compete with St. Cloud State’s peer institutions.
- Support our commitment to sustainability by incorporating high end building systems. (see following data for more sustainability detail)
- Expand links to the river emphasizing the existing river walk, will take advantage of river views and expand river oriented uses and activities.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: The addition of radiographic imaging (x-ray) services on campus could be accomplished by the University purchasing the equipment and hiring staff to perform the work. Revenue from the x-rays done on campus would be generated rather than sending the students to community providers. Revenue could also be shared with the inclusion of the café on the river side.

Campus Data:	2008	2009	2010	2011
FYE	14,382	14,563	15,096	14,976
Headcount	17,429	18,123	18,650	17,604

St. Cloud State University-Student Health & Academic renovation

Space Use %	83%	89%	88%	80%
R & R (per sq. ft.)	\$1.17	\$0.58	\$0.67	\$1.03
FCI	0.08	0.06	0.06	0.07

Deferred Maintenance Backlog removed: Eastman hall’s current Facility Condition Index (FCI) is.31. The project will eliminate the entire \$3.836 million dollar deferred maintenance amount and includes upgrades to the shell of the building, replacement of all plumbing, heating and cooling, electrical, and low voltage systems in the building. The project will add life safety and fire protection systems to the building and bring it up to current code requirements. FCI after construction will be 0.00

Rightsizing and Space Utilization Improvement:

- Existing previously shuttered building will be completely renovated
- Space utilization will be improved by providing more heavily-used, multi-use spaces

Energy efficiency and/or other Sustainability Improvements:

- The entire HVAC system will be replaced with a DDC-controlled VAV system, with exhaust air heat recovery planned
- All lighting will be controlled by motion sensors
- Outdoor air ventilation will be modulated via CO2 sensors, minimizing pre-heating of outside air
- The perimeter hot water system will be high-efficiency variable flow to match heating energy to actual heating load
- Rigid insulation will be added to all exterior walls
- The renovation of the existing building will have a positive impact on campus sustainability initiatives by incorporating high-efficiency systems and high-value life cycle materials and products.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The construction cost estimate carries costs to upgrade domestic water, fire protection, sanitary and storm sewer lines required for the project.

Building Operations Expenses:

- Operating costs: Eastman is currently vacant, but heated to a point to maintain building integrity. Once re-occupied, operating costs are

expected to rise by \$30,000/year once the project is complete. Cubic footage remains the same, so the increase in operating costs won’t be as dramatic.

- Renewal spending @ \$1/SF: Once renovation is complete, building maintenance R & R investment will be planned: \$58,962.00/year.

Debt Service: Average current SCSU share of the debt service is \$673,501. \$618,339 will be added to the SCSU share of the debt service, totaling \$1,291,840.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding

Potential accreditation issues, increased project cost, loss of students to nearby private colleges with superior student health services, inability to retain students, inadequate health services and increased deferred maintenance costs.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:

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Minnesota State Community & Tech College - Initiatives

2014 STATE APPROPRIATION REQUEST: \$1,385,000

AGENCY PROJECT PRIORITY: 24 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Design, renovate, furnish, & equip space to meet workforce training needs.
- Fergus Falls Campus:
 - Renovation of 12,443 GSF (Center for Student and Workforce)
 - Matching Funds of 750,000 (Donations)
- Wadena Campus:
 - Renovation of 7,470 GSF (Campus Rightsizing Phase 2)
- Each project cost will be between \$605,000 and 750,000, and a construction schedule of less than 18 months
- Number of classrooms/labs impacted: 5
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands

PROJECT DESCRIPTION:

Fergus Falls: This project calls for the establishment of a collaborative Center for Student and Workforce Success (CSWS) on the Fergus Falls Campus of Minnesota State Community and Technical College. Under the umbrella of the CSWS, M State will combine the college's access, career and transfer services with the services offered by the current Regional Workforce Center and its participating federal, state and local partners in Fergus Falls. This partnership and collaboration will expand community access to both education and employment options, better fulfilling the mission of each organization.

M State will provide intrusive, intentional academic services and career instruction to students to ensure their success: at entry with college readiness, career guidance and program/course selection and progress assistance; with tutoring and financial aid information to encourage retention in college; and with job placement and transfer services to ensure completion

and success after college. The on-campus Regional Workforce Center will supplement the counseling services and expertise currently available to students while also introducing Workforce Center clients to M State's resources in academic development, transfer and workforce training.

CSWS will update and repurpose existing library, meeting and classroom spaces which are currently underutilized and in need of finish and equipment upgrades. This space has not been renovated since the early 1970s. Renovation for the CSWS will displace two classrooms and a meeting room, with most of this space leased to the collaborating partner agencies which will operate on the campus and generate revenue for the college on a long-term basis.

Wadena: Rightsizing project will update and renovate seven existing classrooms into a combination of classrooms and a new library space (approximately 7,500 square feet). The proposed project is a combination of two previously approved by the Board of Trustees. They include the 2012 Classroom Initiative and the 2010 Library Initiative. The spaces are technologically outdated and do not provide a modern learning environment. The proposed general-purpose classrooms allow space for the growing population of MnSCU transfer, science and nursing courses on the campus.

The project will allow expanded course offerings and will further our expedited campus updating, which has had a profound visual impact as part of the rebuilding that followed tornado damage to the campus in 2010. The project also will modernize a restroom to meet handicap access requirements. In addition to providing a much-improved learning environment, the renovation of these classrooms will enhance the recruitment of new students to the campus.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

Fergus Falls: Access to an extraordinary education for all Minnesotans will be expanded by offering entry-to-exit services for students and residents of the region by the Center for Student and Workforce Success. The CSWS will be available to students and community members who are graduating

Minnesota State Community & Tech College - Initiatives

from high school, employed, under-employed, unemployed, seeking retraining or interested in higher education.

Academic and career planning services will be readily available and will positively impact retention and completion through job placement or transfer to a university. CSWS will include M State, non-profit, state and federal services, with multiple agencies with distinct service missions all located in one facility. As a result, there will be expanded access to education and employment options for students, workers and community members.

Wadena: Due to the diminished economic status of residents within that coverage area, the Wadena campus presents the most accessible option for extraordinary education. This project will complete our efforts to provide a modern learning environment and to implement technological upgrades. The project seeks to update an area of the campus that has had little renovation since its construction in the 1960s. The project will significantly enhance the learning environment for a broad array of programs and courses by bringing the look, feel and usability of our facilities into the current century. The proposed classrooms and modern library will allow the campus to serve as a hub for learning, research and small group studies and provide access to computer labs and online learning options. This project will create a modern learning environment allowing the students/faculty to maximize their teaching and learning potential. With this project, the college will sustain enrollment and experience modest increase in retention. Ultimately, increased retention equates to an enrollment increase without additional instructional resources.

Be the partner of choice to meet Minnesota's workforce and community needs:

Fergus Falls: Partnerships are the foundation of the Center for Student and Workforce Success. These partnerships combine several elements that will greatly enhance the services provided to the workforce and Fergus Falls area communities.

The co-location of multiple workforce agencies and M State will mean more efficient delivery of services to community residents and will create synergies between the services provided by the college and those provided by workforce agencies to their clients. Job searches, retraining, employer postings, resume building, academic advising and transfer counseling currently take place at multiple locations and are done independently of each

other. CSWS will provide a one-stop site for both M State students and community members who are training, retraining, unemployed or under-employed.

Wadena: The college serves a key role in the region in providing a skilled workforce and in retraining dislocated workers. M State works closely with the local Workforce Center, MN CEP, and provides businesses with customized training options. This project will assist in the effort by providing students with a high-quality learning environment which will enable them to better learn the skills and competencies they will need as key employees in the community and region.

The modernized library and technological services will offer additional educational access through online educational options. Thirteen area high schools within a 50-mile radius of Wadena utilize the courses offered through PSEO options and M State has become the partner of choice for additional training options. This project will also allow additional space for area businesses to use the campus for meetings, conferences etc. Rural community colleges are the hubs for information and connections for all area residents.

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

Fergus Falls: The Center for Student and Workforce Success is based on a partnership between M State - Fergus Falls Campus and the offices of DEED, Rural MN CEP, Veterans Services, Someplace Safe, the Department of Vocational Rehabilitation, State Services for the Blind and Experience Works (Green Thumb). Locating these services together will lead to increased efficiencies for M State and the individual agencies and provide new opportunities for collaboration.

Underutilized space on the Fergus Falls Campus will be converted to improve facility space utilization, repurposing space for one-third the cost of new buildings. The working environment for the Regional Workforce Center will be enhanced; the center is currently housed in an overcrowded, below-ground former retail space.

Wadena: The classrooms to be renovated were constructed in 1960s and have had only cosmetic changes over the years. The proposed project will

Minnesota State Community & Tech College - Initiatives

establish a library and classroom value perception that delivers the technological capacity and environmental conditions for contemporary teaching and learning.

The Wadena campus continues to promote its transition from a technical college mission to one of a comprehensive community and technical college. This transition is bringing increased enrollments in general education courses and the Associate in Arts degree and offers an affordable gateway to a four-year education. However, the aging classrooms have hindered this transition. The proposed project will allow the campus to offer additional Minnesota transfer courses that historically have not been taught due to the limitations of the classrooms and lack of modern technologies. The additional course offerings and increased class size, as a result of increased retention, will drive additional enrollment on the Wadena campus.

Institution Master Plans and Regional Collaborations: M State is a collaborative comprehensive community college with campuses in Detroit Lakes, Fergus Falls, Moorhead and Wadena. This project is representative of college academic, facilities and technology plans. The college master facilities plan identifies the need to continuing rightsizing.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: M State - Fergus Falls Campus and the Workforce Development Center are forging a collaboration to implement this project. The project is part of the college capital campaign and has drawn great interest from private donor organizations and the campus Foundation. Indications are that 50 percent of the \$1.5 million project (\$750,000) will be raised in unrestricted donations for this particular construction project if the remaining 50 percent is funded through capital bonding.

Fergus Falls Campus Data	2008	2009	2010	2011
FYE	913	853	921	909
Headcount	2,624	2,848	3,219	3,789
Space Use %	65%	56%	77%	64%
R & R (per sq. ft.)	\$0.61	\$0.40	\$0.91	\$0.80
FCI	0.01	0.05	0.10	0.09

Wadena Campus Data	2008	2009	2010	2011
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FYE	714	659	642	523
Headcount	1,208	1,224	1,073	1,160
Space Use %	84%	79%	65%	74%
R & R (per sq. ft.)	\$0.61	\$0.40	\$0.91	\$0.80
FCI	0.25	0.25	0.25	0.16

Rightsizing and Space Utilization Improvement: By repurposing classrooms and additional space, the campus will improve on its underutilized facility. The project brings to campus the Workforce Development Center, which is located in downtown Fergus Falls. The Wadena project transforms three classrooms into library. Sequentially this will ultimately produce space that will be identified for new academic program space and/or lease-out opportunity.

Energy Efficiency and/or other Sustainability Improvements: Reconfiguration will allow full access to solar light, and daylight control devices will be included with new high-efficient lighting, which includes some LED. Financial sustainability will be achieved with the partnership lease.

IMPACT ON AGENCY OPERATING BUDGETS:

Debt Service: The current average debt service paid by the college is \$239,971 annually. This project would increase our average annual debt service by \$8,875.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding If not funded, the campus will continue to suffer in terms of an outdated facility, in addition to limitations to the proposed Workforce Development Center partnership/lease. And the modernization of these areas is vital to the health and stability of the campus and the educational experiences for the local students.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Matt Sheppard, Director of College Facilities, 1900 28th Ave. South, Moorhead, MN 56560, 218-299-6519 (office) 701-371-5636 (cell), 218-299-6852 (fax), matt.sheppard@minnesota.edu

Northland Community and Technical College, East Grand Forks - Initiative

2014 STATE APPROPRIATION REQUEST: \$749,000

AGENCY PROJECT PRIORITY: 25 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Design, renovate, furnish, & equip space to meet workforce training needs
- Renovation of 5,370 GSF
- Construction schedule of less than 18 months
- Number of classrooms impacted: 4
- Reduce deferred maintenance in the college's labs and classrooms, and bring to current building codes
- Removal of obsolete spaces to respond to workforce demands
- Aligns with equipment obtained through leveraged equipment program

PROJECT DESCRIPTION:

The project will renovate three existing science laboratories and the radiologic technology laboratory. The renovation includes an increase to storage for each of the three science laboratories. The radiologic laboratory will be updated to compliment new digital imaging equipment, which is being procured through the 2012 Leveraged Equipment Program.

The current science laboratories are outdated, unsafe, and cramped with equipment and supplies. In each of the three laboratories, there is limited space between the rows of students and storage cabinets, forcing students to carry microscopes, dissection supplies, specimens, and hazardous chemicals along a very narrow corridor while navigating book bags, chairs, and other students creating safety risks. The instructor has to navigate the same areas, which limit the instructor's ability to interact with students. The benches in the anatomy and microbiology laboratories are low, only 30 inches, which makes it difficult for the instructor to interact on the same level with students and limiting interaction.

The current storage areas make it necessary to store equipment and supplies in the laboratories on top of cabinets against the ceiling, which is not consistent with fire code requirements. The chemistry and biology labs often

use flames and hot plates, which make these safety concerns that much more severe. Due to the lack of storage, incubators and refrigerators are stored in the laboratory space which further decreases the available space in the student laboratory area.

The current preparatory areas for all three science laboratories are small and significantly inadequate, causing faculty to have to prep lab exercises within the lab room. Not being able to prep in the actual prep area reduces the ability of this room to be used for other courses whether these are science lab courses or lecture-based classes.

The renovation of the science laboratories will increase the useable lab room space, thereby correcting the safety issues. Moreover, the open design concept will allow for an improved teaching area, the ability to incorporate new technologies to support a potential new lab technician program, better and improved storage, and better interactions with students. In addition, the renovation to the chemistry laboratory will allow for scheduling laboratories with 24 students. At the present time, only 18 students are scheduled in each laboratory due to safety concerns surrounding the use of hazardous chemicals in close working conditions.

The redesign of the science laboratories will improve ADA compliance. Currently, in each of the three laboratories, it is necessary for a student in a wheelchair to sit at a station that faces a sink in the back of the room with their back to the instructor.

Finally, our radiologic laboratory is built around film process radiologic technology. Business and industry has moved to digital imagery equipment. Renovation of the radiologic laboratory provides a learning environment in which we are able to efficiently install digital imaging equipment which has been secured as part of the 2012 Leveraged Equipment Program. The digital equipment along with the renovation of the lab space will remove the existing dark room, create a better organized lab for student interaction, and provide the opportunity seek approval from the accrediting entity for an addition of four students. The improved laboratory experience will serve to improve the skills and knowledge students acquire during the lab practice. Much of what students encounter in the clinical training will be able to be learned and practiced first in the lab setting allowing for a much more effective transfer of skills and preparation to work with patients.

Northland Community and Technical College, East Grand Forks - Initiative

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:**Minnesota State Colleges and Universities Strategic Framework:*****Ensure access to an extraordinary education for all Minnesotans:***

Science lab updates will improve safety and provide up-to-date laboratory experience for approximately 600 students each year. The science courses and respective laboratories serve as part of the core curriculum for both practical and registered nursing programs, as well as ten allied health programs. The redesigned space will allow all students to be able to clearly see the instructor as the lab activities are demonstrated or important topics are covered. Better engaged students are students that excel, which is really the measure of extraordinary education experience.

The renovation will also allow for the implementation of new technologies to the lab rooms, which are not possible with the current design. The renovated room in the anatomy lab will allow for incorporation of new technologies in anatomy and physiology, including the incorporation of virtual cadavers, life-size touch screen counters that allow students to virtually dissect a human cadaver. The ability to use virtual cadavers effectively would revolutionize the anatomy lab. With the current lab design it would be too cramped to have the cadavers out all the time, meaning having to wheel these fragile and expensive counters in and out of the lab.

The redesign of the microbiology lab will allow for incorporating molecular biology technologies and techniques. This will allow students to learn current molecular lab techniques, providing them with hands on knowledge of many advanced concepts, including DNA replication, gene structure, cell cloning, DNA sequencing, and genetic modification.

Radiologic technology lab space updates will facilitate conversion from a film to digital lab experience for students. Additionally, providing the most current technologically advanced digital equipment for the students at the college will increase their access to extraordinary education. This equipment and renovation will allow students to critically think about problems and apply creative solutions in a controlled lab setting instead of depending solely on the clinical training for this experience. By adding computer work stations in the lab, students are able to work on digital images with close supervision by

the instructor while other students work on positioning and technique for exposures. This will allow for group activities and teamwork simulations to be incorporated into the curriculum for students.

Be the partner of choice to meet Minnesota's workforce and community needs:

Each of the renovations in this project will provide students with a contemporary, state-of-the-art laboratory experience in their courses. As mentioned above, the science courses and respective laboratories serve approximately 600 students per year for nursing and allied health programs. These renovations will allow for expansion in other STEM fields such as biological lab technician. Having contemporary lab spaces will better prepare students for the transition to the workforce.

In addition, the radiology program is recognized by area health care facilities as providing high quality graduates. Upgrading the equipment and space is critical to maintaining this respected status of providing quality graduates to area healthcare providers.

Census data supports there will be an increase in the need of the number of quality health care professionals in the future due to the aging population. The nursing and allied health programs strive to meet the demands of area healthcare providers in the region and support the current as well as future need.

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

Renovations of the science laboratories will allow for higher enrollment in chemistry labs increasing capacity from 18 to 24 students, repartition of square footage of the Microbiology or Anatomy Labs will increase the usable lab space for students, allow for better delivery of content to students, and better interaction between faculty and students and between students themselves. In addition, renovations of the science laboratories allow the space to be more flexible for the inclusion of new technology such as the virtual dissection cadaver. The shifting of the chemistry preparatory and storage room into a current classroom maintains space adjacent chemistry lab (conference room) that can be converted into space for a chemistry technician program as a future program expansion opportunity.

Northland Community and Technical College, East Grand Forks - Initiative

Radiologic technology updates allow the opportunity to increase program capacity by over ten percent. Approval will be sought from the accrediting agency, Joint Review committee on Education in Radiologic Technology, to increase program enrollment by four students. These improvements not only increase the quality of student learning experience but also the effectiveness and efficiency of learning. More students can be better served in the same space.

Institution Master Plans and Regional Collaborations: Radiologic technology, as well as our allied health programs that rely on our science labs, expect above average growth. These improvements will help us meet regional workforce needs. The vast majority of students that use the science labs, over 90%, are enrolled in one of the health programs on campus. Based on meetings with regional biotech industry leaders, there will be a growing need for biology and chemistry lab technicians. The newly renovated lab space will allow the campus to create programs to meet these growing needs. This will strengthen current partnerships and build new ones with business and industry in the region.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: NCTC received \$100,000 through the 2012 Leveraged Equipment Program for a computed radiography system.

Campus Data:	2008	2009	2010	2011
FYE	1,366	1,355	1,369	1,326
Headcount	2,300	2,288	2,390	2,370
Space Use %			57%	42%
R & R (per sq. ft.)	\$1.20	\$1.00	\$0.96	\$0.83
FCI	0.12	0.16	0.15	0.15

Deferred Maintenance Backlog removed: Current FCI is .25. This project will make improvements to \$100,000 in HVAC controls, \$75,000 in HVAC equipment, \$15,000 in fire protection systems, and \$120,000 in interior finishes, reducing backlog by \$310,000, improving our FCI by .01.

Rightsizing and Space Utilization Improvement: The changes to the chemistry lab will actually allow for a 33% increase in available seats in the lab. Remodeling of the radiologic technology lab will allow for better

utilization of existing lab space by removing the existing dark room, and will allow additional space for equipment upgrades.

Energy efficiency and/or other Sustainability Improvements: New HVAC controls and equipment will minimally decrease energy usage and allow for possible utility rebates.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: Existing infrastructure meets all needs.

Debt Service: The debt service associated with the project is included on the Project Detail tab and is estimated to be \$12,000 per fiscal year for the first three years.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding: The safety issues and improvement of ADA compliance alone warrant remodeling the science labs. However, being left behind the tide as science expands as never before seen is a major consequence of delayed funding for our ability to meet the workforce needs of the region. This expansion is seen in the growing need for students that are trained in these very specific skills to work in this ever growing multi-billion dollar industry. Technological growth in the sciences will also impact healthcare and a consequence of not funding the renovations is that we will not be able to provide high quality training for health programs. We can already see this consequence as our radiologic technology lab has been outdated with the current business and industry standard.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND

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Winona State University - Initiative

2014 STATE APPROPRIATION REQUEST: \$592,000

AGENCY PROJECT PRIORITY: 26 of 26

PRIOR YEAR CAPITAL APPROPRIATIONS: None

Project At A Glance:

- Design, renovate, furnish, & equip space to meet workforce training needs
- Renovation of 3,703 GSF
- Number of classrooms/labs impacted: 5
- Construction schedule of less than 18 months
- Reduce deferred maintenance in the university's labs and classrooms, and bring to current building codes

PROJECT DESCRIPTION:

WSU is proposing to renovate the spaces currently used for Psychology courses on the second floor of Phelps Hall. This includes classrooms, labs, and lab support spaces that are not able to be used simultaneously due to space sharing and inefficiencies. The intention is to renovate the current footprint of these spaces to be more flexible, efficient and up to date with today's technology and teaching methods. This will include upgrades to the existing HVAC and electrical systems that serve these areas, with the intent to increase system efficiency and decrease deferred maintenance and operating costs.

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY STRATEGIC FRAMEWORK:

Minnesota State Colleges and Universities Strategic Framework:

Ensure access to an extraordinary education for all Minnesotans:

This department has a hard time scheduling labs and classes for the high number of students. This is due to the limitations with the design layout of the current spaces that cannot be used simultaneously. The goal of this renovation is to create more flexible spaces with increased seating capacity that can each be scheduled independent of each other. This increased space and scheduling flexibility are necessary to accommodate the 50% increase in majors that WSU has seen in the past decade, and the two new

faculty lines, which will produce an additional 16 classes per year. By completing this proposed project, seating capacities, access to these classes and hands on lab opportunities will be available to more students.

Be the partner of choice to meet Minnesota's workforce and community needs:

WSU is currently limited in offering Psychology courses, simply because they cannot offer enough seats in some classes and labs due to space limitations. The current outdated furniture and work benches make it difficult to incorporate today's technology into the lab and classroom. Proceeding with this renovation work will bring our outdated labs and classrooms up to date, to be more competitive with other institutions. It will also demonstrate that WSU is committed to this program, which will aid with student and faculty retention, and helps to better prepare our students for the growing field in the community and regional workforce.

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

In its current state, the labs and classrooms are underutilized due to the outdated furniture and lack of flexibility. Through this renovation, we intend to reconfigure the same footprint of space to create more flexible classrooms, updated labs and support spaces, and individual testing lab spaces that can all be used simultaneously.

Upgrading the HVAC and electrical systems will reduce the building deferred maintenance and operating costs. System efficiency will be improved by creating separate zones based on type of use. This will result in overall energy usage reduction.

WSU has already invested the time and funds to do a predesign for this renovation work. This predesign has shown that the proposed renovation work is not only feasible for the department and building, but that the increases in efficiency will benefit the WSU campus as a whole.

PROJECT RATIONALE:

By proceeding with this renovation, WSU will be better equipped to provide high quality options to all students. Psychology minors represent every major in the College of Liberal Arts, and a long list of programs seeking neuroscience research and coursework including Biology, Chemistry, Pre-

Winona State University - Initiative

Medicine, Pre-Pharmacy, Nursing, and Health/Exercise/Rehabilitative Sciences. With the growing need for graduates to have hands on lab experiences and a diverse class history when entering the work force, the demand for Psychology classes continues to increase. In order to meet these needs, WSU needs to upgrade our spaces. By creating more flexible space, WSU will be better able to change in the future as the needs of the industry and work force change.

Institution Master Plans and Regional Collaborations: In the past few years, the nation as a whole has placed more emphasis on the importance of mental health. This extends to the south east Minnesota region, which includes the Winona community and WSU as an institution. Stemming from this importance is the growing need for people to be trained in the fields of Psychology and Neuroscience. Proceeding with this renovation project will ensure WSU can continue to offer the education needed for the growing workforce of the region.

Likewise, by creating an up to date lab space that can be better utilized and scheduled to increase efficiency, the faculty can continue doing research projects that benefit the industry. This will help to maintain WSU's role in the industry and region.

Exploration/Implementation of Alternatives and Partnerships for Funding and/or Equipment: To date WSU has not explored alternative funding sources for this project, other than different combinations of internal funding. Originally WSU thought the entire project cost would be much lower, and would be able to be funded using internal operating budgets or one time carry forward funds. Upon completion of the predesign, it became apparent that the project cost was much higher than originally anticipated.

Campus Data: The information listed below has been gathered by our best ability. Some figures are unknown.

	2008	2009	2010	2011
FYE	7,775	7,950	8,200	8,450
Headcount				
Space Use %	82%	83%	80%	83%
R & R (per sq. ft.)				
FCI	.09	.12	.14	.12

Deferred Maintenance Backlog removed: Current building FCI = 0.24. By completing the proposed renovation, WSU will correct the previously identified moisture issues in the building attic space. The HVAC system will be separated and upgraded to serve the different uses in the building. The electrical service will be upgraded to handle the increased loads created from moving all lab equipment into one central location. These modifications and upgrades will decrease the building's deferred maintenance and backlog, to the point that WSU expects the building's FCI to decrease to 0.20.

Rightsizing and Space Utilization Improvement: The most prevalent goal of this renovation work is to maximize efficiency of the spaces used by this department. Currently a number of spaces are not able to be used simultaneously due to space sharing of some kind. The distribution of equipment throughout several rooms due to the electrical limitations requires those rooms to all be available at the same time. In addition to space sharing and scheduling issues, the rooms are generally under-utilized due to the outdated configuration and furnishings. By updating these items, the rooms will be more flexible, and will be able to better serve differing configurations.

Energy efficiency and/or other Sustainability Improvements: Currently the entire project area is served by one HVAC system. The animal holding rooms require strict HVAC control 24x7. By adding a new roof top unit to serve only the animal holding rooms, the existing system will be able to be controlled more efficiently, particularly when not in use. This increased efficiency in operations will drastically reduce the energy use in this building area, and should result in substantial cost savings.

IMPACT ON AGENCY OPERATING BUDGETS:

Capacity of Current Utility Infrastructure: The current WSU utility infrastructure has adequate capacity to take on the minor HVAC and electrical system upgrades. There should be no impact on any other utilities, as this project is intended to renovate the same square footage footprint, with no increase to the overall project area.

Building Operations Expenses: The HVAC and electrical upgrades associated with this project will help to create more efficient use of the

Winona State University - Initiative

systems. The current HVAC system that serves the project area is required to operate 24x7, year round, to maintain consistent conditions in the animal holding rooms. This system serves a number of other spaces in the building that are not required to be maintained to this same level. By adding a new roof top unit, separate zones will be created to serve the different uses in the building. This increased HVAC efficiency alone is expected to lower energy usage substantially, and will thus lower operating costs of the building. The exact costs of operations and savings are unknown at this time, though this will be tracked before and after the renovation work for comparison.

The electrical service to this area of the building will also be upgraded to better support the electrical loads of this department. As with any substantial upgrade to an entire system, the efficiencies are expected to increase while lower operating costs.

- Operating: unknown for this specific area of the building
- Renewal spending @ \$1/SF:

Debt Service: Debt Service-Current & Projected Debt Service with Added Project. WSU does not anticipate a change to our current debt service if this proposed renovation project is funded.

OTHER CONSIDERATIONS:

Consequences of Delayed Funding: The WSU Psychology Faculty raise animal colonies to be used for research and testing purposes tied to their curricula. Once begun, this 18-month process cannot be moved from the original holding room in which it is started. Delaying funding will mean putting this cycle on hold for an indeterminate time period, which has a direct correlation to the year's research based lab work and department curricula.

In addition to disrupting academics, delayed funding will prolong WSU's scheduling issues within this department. This will also extend inefficiencies in space use, energy use and will prolong the deferred maintenance issues in this area of the building.

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL: Patricia Bremer, AIA, WSU Campus Planner, Facilities Planning and Construction Office 203A, 175 West Mark Street, Winona, MN 55987
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