ALPENA
COMMUNITY COLLEGE

Alpena Community College
Alpena, Michigan

Five-Year Capital Outlay Plan
2026-2030
Submitted October 2024

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I. Mission Statement

The College Mission

The mission of Alpena Community College is to create a culture of educational excellence and service to the community.

The College Goals

(1) Campus/Culture

Offer a welcoming, safe, and adaptable culture that inspires diversity.

(2) Learning/Education

Motivate continuous exploration of diverse opportunities and knowledge acquisition through a flexible learning environment.

(3) Community

Stimulate community collaboration, which fosters comprehensive economic, cultural, and community development.

(4) Value

Exercise sustainable value that supports career pathways and fiscal responsibility.

The College Vision

To be recognized in our local and global communities as the premier resource and first choice for exceptional, affordable, and innovative education.

The College Values

- We demonstrate **accountability** to all our stakeholders, students, staff, business partners, industry alliances, and taxpayers.
- We act with **integrity**, placing fairness and honesty at the center of all our actions.
- We aspire to **excellence** in all our endeavors.
- We show **respect** for diversity, individual contributions, and educational partnerships.

II. Instructional Programming

a. Existing Academic Programs

ACC offers the Associate in Arts and Associate in Science degrees for students who plan to transfer to a four-year institution after two years of study.

Associate in Arts Concentrations

- Anthropology
- Business Information Systems
- Computer Information Systems
- Criminal Justice
- Economics
- Education, Elementary
- Education, Secondary
- Education, Vocational
- English
- Fine Arts
- Geography
- History
- Liberal Arts
- Political Science
- Pre-Law
- Psychology
- Social Work
- Sociology

Associate in Science Concentrations

- Biology
- Chemistry
- Computer Science
- General Sciences
- Mathematics
- Natural Sciences
- Physics
- Pre-Construction Management
- Pre-Dental
- Pre-Engineering
- Pre-Fisheries and Wildlife
- Pre-Medical Technology
- Pre-Medicine
- Pre-Occupational Therapy
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Radiology Technology
- Pre-Veterinary
- Psychology

The Associate of Applied Science degree marks the progress of students seeking employment after graduation from a variety of two-year programs. Current majors for the AAS degree include the following.

- Accounting
- Auto Service and Repair
- Business Information Systems
- Business Management
- CADD Technology
- CAD/CAM Technology (Machining Option and Welding Option)
- Concrete Technology
- Corrections
- Customer Energy Service
- Electrical Maintenance Technician
- Industrial Sales
- Law Enforcement
- Manufacturing Technology
- Marketing
- Medical Coder and Biller
- Millwright Technician
- Network Administration
- Nursing
- Small Business Management
- Utility Technician

The Certificate award marks the progress of students seeking employment after graduation from a variety of one-year programs. Certificate awards are currently made in these fields.

- Apprentice – Electrical
- Apprentice – Millwright
- Auto Service and Repair
- Business Information Systems
- CAD/CAM, Advanced
- Construction Technology – Green Building
- Corrections Officer
- Customer Energy Service
- Industrial Technology
- Manufacturing Technology
- Network Administration
- Licensed Practical Nursing
- Small Business Management
- Utility Technician
- Welding Fabrication

b. Unique Characteristics

According to the most recent federal IPEDS (Integrated Post-Secondary Education Data System) report, ACC ranked first in graduation rate among Michigan's 28 community colleges with a rate of 42 percent. The next highest community college had a graduation rate of 36 percent.

Since 2017-18 ACC has annually ranked in the top five Michigan community colleges in Student Success Rates, according to data aggregated by CEPI (Center for Educational Performance and Information), Michigan's repository of post-secondary educational data:

Average student success rate all colleges	2 years 23.8	3 years 38.4	4 years 40.3	5 years 45.4	6 years 48.3
Student success rate ACC	2 years 33.4	3 years 48.0	4 years 50.8	5 years 60.1	6 years 56.8
ACC rank	5th	3rd	3rd	1st	4th

ACC currently administers the following federal grants: Trio Talent Search; Title III Part A, Strengthening Institutions Program grant; HEERF Coronavirus Relief; USDA Distance Learning and Telemedicine grant; a FIPSE earmark appropriation; a USDA Rural Development Community Facilities earmark appropriation; and is partner in a federal Strengthening Community Colleges workforce grant through U.S. Department of Labor, Employment and Training Administration. ACC received the U.S. Department of Labor's Recognition of Excellence award for the best community college training program in the nation in 2007.

ACC currently administers the following state workforce training grants: MiLEAP; Michigan New Jobs Training grants; a MIOSHA CET grant; a $2 million ADN/BSN partnership; and a $4.617 million grant from the Michigan Public Service Commission to fund a six-acre solar array on College property.

Alpena Early College in collaboration with Alpena Public Schools is now in its 11th year. The most recent class of 51 graduated in May 2024 having attained an average of 49 college credits. Average Grade Point Average of these graduates was 3.268. Total early college enrollment for all participating school districts for Fall Semester 2024 is 297 students.

ACC has boosted enrollment in dual enrollment and Early College programs by offering discounted in-district tuition to all K-12 districts enrolling students in our classes. As a result, ACC now offers dual enrollment postsecondary transfer courses to 28 K-12s across NE Lower Michigan and has established approved Early College partnerships with seven K-12s in the service district. ACC also offers direct credit to approximately 1,000 Career and Technical Education (CTE) students annually.

ACC is fortunate to provide a classroom and office on campus for a very robust Association of Lifelong Learners boasting 250 members of all ages and over 200 presentations, excursions, and social events per year.

The Concrete Technology AAS program at ACC is one of only two in the nation. It operates out of the World Center for Concrete Technology on the ACC Main

Campus alongside incumbent worker training and research/testing performed as a service to the concrete industry.

ACC's Utility Technology Certificate and AAS degree is a premier occupational program providing trained pre-apprentice lineworkers to utility companies, electrical cooperatives, and municipalities statewide. ACC's Electrical System Technology Bachelor's degree program provides trainees knowledgeable in grid design, sub-station control, and moving green sourced power onto and off the electrical power grid.

Recent upgrades of ACC Nursing education facilities contributed to a total Nursing enrollment increase from 54 fulltime students in 2020 to 132 in fall semester 2024. An innovative AND-to-BSN partnership has 23 students in the pipeline.

As for university partnerships, ACC participates in the new Michigan Transfer Agreement, administers numerous other articulation agreements, and performs reverse transfer functions for students who leave us before graduating to begin university study. In addition, ACC's Madeline Briggs University Center brings bachelor's degree programs in business from Northwood University and integrative studies and information technology from Ferris State University. ACC implemented a partnership with Saginaw Valley State University to offer a Bachelor of Science in Nursing (BSN) degree in FY23.

c. Other Initiatives Affecting Facilities Usage

- Capital improvements include the $8.7 million Center for Health Sciences Van Lare Hall renovation project, completed in 2021. This project replaced the original HVAC and electrical wiring system of a legacy building constructed in 1957. All windows were replaced, the building was abated for asbestos, sprinkled for fire suppression, and air conditioning and a new roof were installed. Technology upgrades included simulation manikins and a virtual cadaver Anatomage table for the Nursing program. Videoconferencing technology was installed in multiple classrooms with enhanced WiFi and internet connectivity for students throughout the building.

- The $1.6 million Fitzpatrick Hall was completed in October 2022. The 54-seat lecture hall supports the BSN partnership with Saginaw Valley State University and offers state-of-the art technology for both face-to-face and distance learning instruction applications.

- A $3.5 million Center for Manufacturing Excellence renovation of the welding and manufacturing labs was completed in fall 2023. This project will upgrade the classroom and lab space for two robust occupational programs with outstanding job opportunities for graduates.

- Successfully introduced LPN and RN nursing programs to the Oscoda Campus, which entailed developing a nursing instructional laboratory and new clinical partnerships with area hospitals in Tawas and West Branch.

d. Economic Development Impact

In general terms, ACC's economic impact is documented by a study performed in 2006 by CCBenefits, Inc. The Fact Sheet is attached at the end of this report in the Source Material section. This document demonstrates that within the five-county college service area, the regional economy is $88.1 million stronger per year as a result of past and present college operations.

III. Staffing and Enrollment

a. Enrollment by Program with ≥10 Majors

PROGRAM	MAJORS
Apprenticeship Millwright Certificate	10
Automotive Service Certificate	10
Business Info Systems Adm. Asst.	10
Mathematics	10
Marketing	10
Auto Body Repair Certificate	11
Apprentice-Electrical Certificate	11
Pre-Pharmacy	11
Millwright Technician	12
Network Administration	12
Pre-Radiologic Technology	15
CAD/CAM Tech (Machining Option)	15
Electrical Maintenance Technician	15
English	15
Pre-Veterinary Medicine	16
Marine Technology	17
General Studies	17
Computer Information Systems	17
Computer Science	17
Education Secondary	18
Automotive Service Technology	20
Sciences General	25
Pre-Engineering	25
Biology	26
Law Enforcement	26
Pre-Physical Therapy	27
Psychology - AA	28
Education Elementary	29
Accounting	34
Utility Technology	34

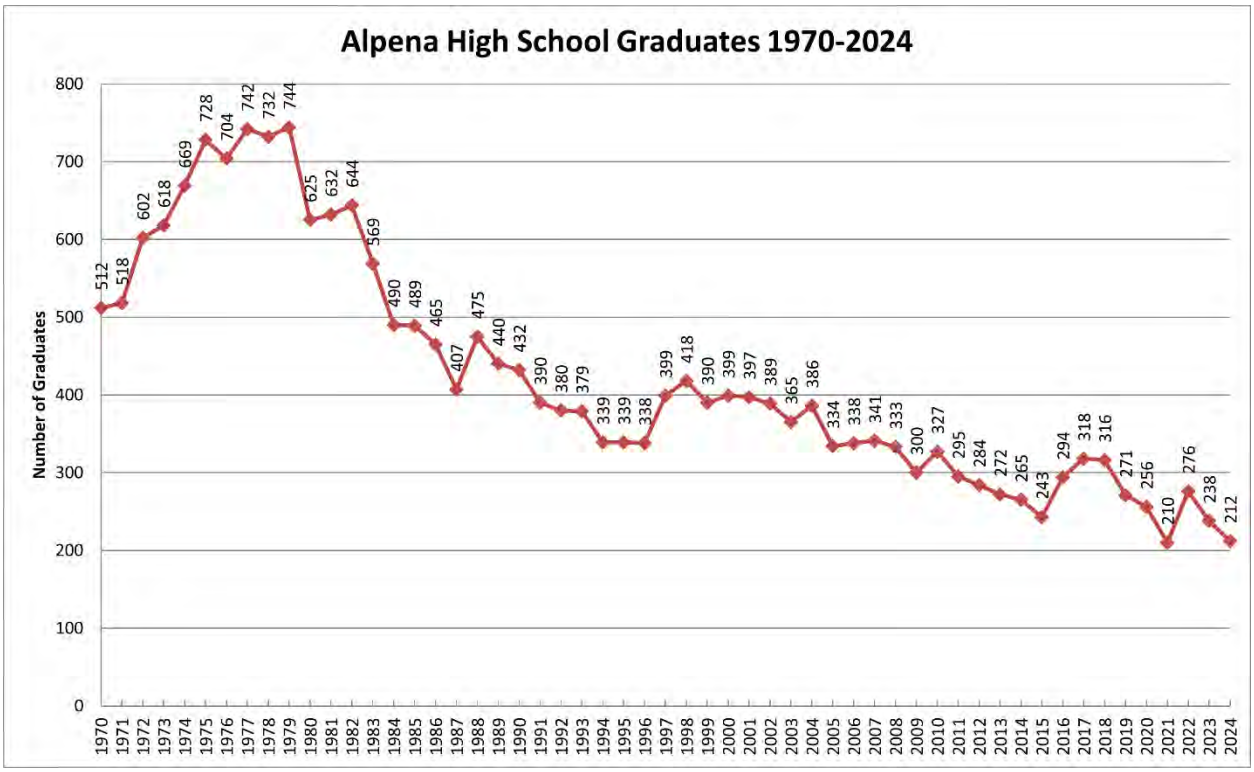
Licensed Practical Nursing Certificate	35
Business Administration	36
Welding Fabrication Certificate	37
Fine Arts	43
Pre-Medicine	44
Social Work	44
Registered Nursing	49
Concrete Technology	55
Utility Technician Certificate	58
Criminal Justice	60
Business Management	78
Pre-Nursing	176
Liberal Arts	280

b. Enrollment projections

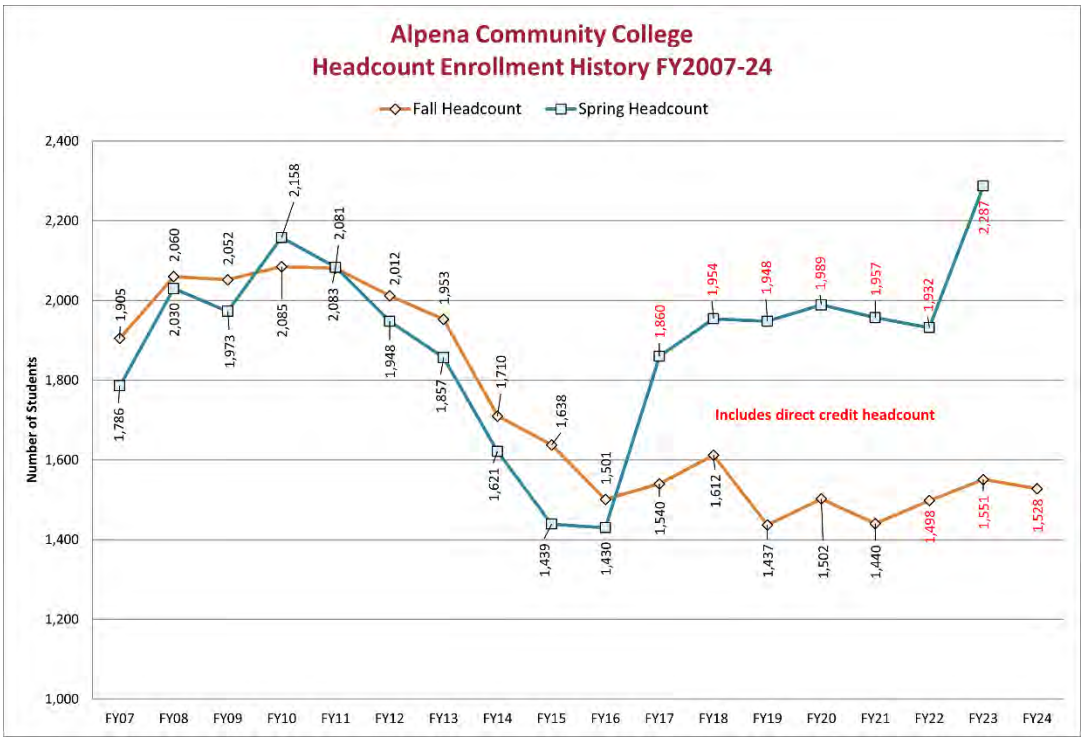
Fall 2024 headcount increased five percent over fall 2023 while contact hours rose 7.4 percent. Enrollment continues to be a significant challenge, due primarily to an ongoing demographic of fewer high school graduates per year in every K-12 in NE Michigan coupled with uncertainties associated with the COVID-19 pandemic. ACC's occupational programs continue to sustain robust enrollment levels and its dual enrollment and Early College partnerships now represent more than half of headcount enrollment. Traditional General Education transfer courses appear to be the enrollment sector that is most challenged currently. Futures for Frontliners and Reconnect have helped enrollment, though it is a concern to College officials and program participants alike that a sustaining funding model to keep these programs viable has yet to be passed by the legislature. ACC's migration to remote videoconferencing instruction, piloted to good success prior to the pandemic, continues to extend the footprint of the College beyond its traditional boundaries. College officials continue to see evolution of remote learning modalities such as videoconferencing as critical to sustaining enrollment in the years ahead.

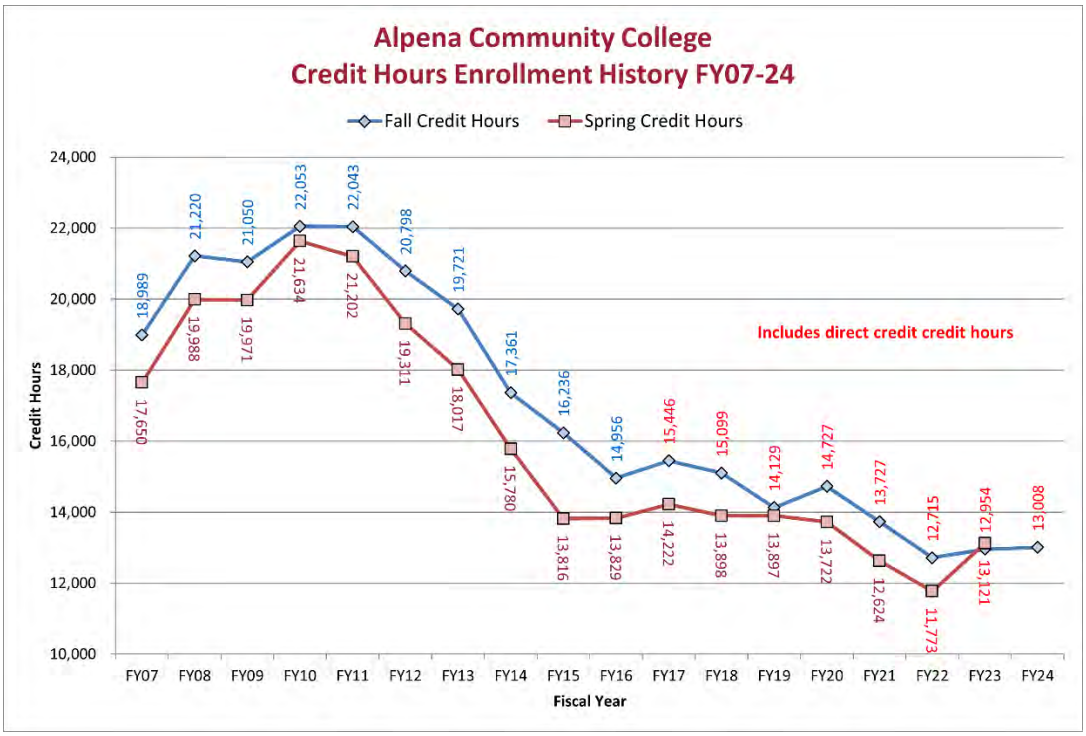
Over the next five years at least, ACC will be dealing with demographic factors that will cause continued enrollment challenges. Population in Alpena County, the largest source of ACC students, is likely to remain stable with an increasing senior citizen component and a decreasing youth component. Neighboring counties served by ACC all experienced significant population declines over the past 10 years, particularly among school age young people. To address the local demographics, the college continues to follow an annually updated marketing plan, available at https://discover.alpenacc.edu/document_center/About%20ACC/Office%20Public%20Information/acc_marketing_plan.pdf. The plan calls for continuing proven strategies and also initiating new emphases on technical program recruitment all over the state.

The concern about enrollment decline is based on the following graduation data from Alpena High School. About 65% of Alpena High School graduates attend ACC within two years of receiving their high school diploma.



c. Past ACC Enrollment Patterns





d. Future Program Staffing Needs

For programs affected by the capital outlay plan, no new full-time faculty positions are anticipated.

e. Average Class Size

Not counting independent studies or internships, average credit class size for fall semester of 2022 is 13.

IV. Facility Assessment

Following is Alpena Community College's most recent Facility Condition Analysis report prepared by Integrated Design Inc. of Marquette, Michigan.

Alpena Community College

Facility Condition Analysis

Prepared By

integrated designs inc.
IDI ARCHITECTURE ENGINEERING CONSULTING

1021 West Baraga Avenue
Marquette, MI 49855
906-228-4480 Fax: 906-228-7524

Final Report Issued: October 9, 2024

Project Number

24-104

Alpena Community College
Facility Condition Assessment Report

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Introduction and Purpose

Alpena Community College (ACC) consists of two campuses – the main Alpena campus and a satellite Oscoda facility. In response to a request for proposal for facility assessment services from January 2024, Integrated Designs, Inc. (IDI) was selected to provide a comprehensive study of the instructional, housing and maintenance facilities located throughout the campuses, as well as the building grounds and ancillary sites, to develop the following:

- Provide an inventory of the College's facilities in a database format to be easily updated and maintained by college personnel and allow for quick access to facilities information.
- Determine the general condition of the buildings and grounds of the college and provide the data in a concise format, allowing quick determination of the current replacement value and condition of each facility.
- Determine a Facilities Condition Index (FCI) for each building and the college as a whole. The FCI is a benchmark index that rates the condition of existing buildings and is used by facility managers to quantify and prioritize deferred maintenance projects for capital planning purposes.
- Assist the College in meeting the goals of its Mission Statement through timely maintenance of the physical backbone of the College – the campus buildings.
- Clearly define code deficiencies, functional effectiveness, while being mindful of energy consumption.

The facilities assessment and deferred maintenance capital planning study was developed through a combination of personnel interviews, facility walk-throughs and building system analysis and was performed the following members of IDI:

- Erik Coursey – Architectural Designer
- Phil Niemi – Structural Engineer
- Brian Kudej – Civil Engineer
- Steve Boettcher – Mechanical Engineer
- Adam Manty – Electrical Engineer

The report is grouped into three separate sections, starting with observation highlights and an executive summary of each facility. This section is then followed by a cost summary, accompanied by a breakdown of each deficiency with photo log of each individual facility.

Material And Labor Cost Factors and Additional Markups

The cost summaries and totals are illustrated by condition and priority class. R.S. Means (2023) cost estimating and historic cost data was used in developing the project cost information. No regional project cost adjustment factors for materials or labor were used for this report given the R.S. Means factor for Gaylord, Michigan was a cost reduction. Typical general contractor and professional fees would need to be added on a project-by-project basis, as applicable.

Markup Percentages		R.S. Means
Local Labor Index:	74.3%	of National Average (Not applied)
Local Materials Index:	94.0%	of National Average (Not applied)

General Contractor Markup:	10.0%	Contractor profit and overhead, bonds and insurance
Professional Fees:	15.0%	Architect, Engineering, Survey, Geotechnical, Governing Agencies fees

Project Classification

DM = Deferred Maintenance: Refers to expenditures for repairs which were not accomplished as part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Cost estimated for deferred maintenance projects should include compliance with applicable codes. Deferred maintenance projects represent catch up expenses. Capital renewal costs, a subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (i.e. roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance), was also included within this classification.

Condition

The analysis of facilities and their systems in clued a qualitative score. Qualitative scoring is based on a scale of 1 through 5 using the following definitions:

1 – Unsatisfactory, replacement required.
2 – Poor, many major repairs required.
3 – Fair, some major maintenance deficiencies.
4 – Excellent, routine maintenance deficiencies.
5 – New, system less than one year old.

Priority Class

PRIORITY 1 – Currently Critical (Immediate)

Projects in this category require immediate action to:

a. Return a facility to normal operation
b. Stop accelerated deterioration
c. Correct a cited safety hazard

PRIORITY 2 – Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in the category include:

a. Intermittent interruptions
b. Rapid deterioration
c. Potential safety hazards

PRIORITY 3 – Necessary – Not Yet Critical (Years Two to Five)

Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

PRIORITY 4 – Recommended (Years Six to Ten)

Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; Priority 4 projects will either improve overall usability and / or reduce long-term maintenance.

PRIORITY 5 – Future (Years Ten to Twenty)

Projects in this category include items that represent potential future improvement to existing conditions. Priority 5 projects should be reviewed over time to improve overall usability and / or reduce long-term maintenance.

Facility Condition Index (FCI)

FCI = Facility Condition Index, Total Cost vs. Replacement Cost. The FCI provides a life cycle cost comparison. Current Replacement Value is based on replacement with current construction standards for the facility use type, and not original design parameters. The index gives the client a comparison within all buildings for identifying worst case / best case building conditions.

$$FCI = \frac{\text{Deferred Maintenance}}{\text{Current Replacement Value}}$$

FCI Range	Condition Description
0.01 – 0.05	Excellent condition, typically new construction
0.06 – 0.15	Good condition, renovations occur on schedule
0.16 – 0.30	Fair condition, in need of normal renovation
0.31 – 0.40	Below average condition, major renovation required
0.41 – 0.59	Poor condition, gut / renovation indicated
0.60 and above	Complete facility replacement indicated

Category Code (Uniformat II)

UNIFORMAT II is the elemental classification in this report because it was developed through industry/government consensus process and has been widely accepted as an ASTM standard. UNIFORMAT II is a classification that comprises four hierarchical levels for both building elements and related site work elements. This system was used as a guide for the basis of our report.

Life Cycle Cost Model Description and Definitions

Included in this report is a Life Cycle Cost Model. This model is a summary of all major systems and components in the facility. Each indicated component has the following associated information:

UNIFORMAT II CODE	This is the standard UNIFORMAT II that applies to the component
Life Expectancy	Average life expectancy for each individual component
Component Description	This line item describes the individual component
Action	Changes necessary to individual component
Quantity	The quantity of the listed component
Units	The unit of measure associated with the quantity
Unit Cost	The cost to replace each individual component unit
Total Cost	Unit cost multiplied by quantity. One-time renewal / replacement cost

Photo Number

A code shown on the photo log identifies the component number and letter for designation of architect, civil, structural, mechanical, and electrical.

Besser Technical Center

Facility:	**Besser Technical Center**
Use Type(s):	Votech, Classroom, Kitchen/Food Service, Administration
Built:	1962
Area:	76,140 SF
Floors:	2 stories

Summary

Besser Technical Center, built in 1962 with additions in 1996 and 2008, is primarily utilized as a general/vocational technology classroom building and overall is aging well. The structure of the building is mostly masonry construction including most of the roof structure. An area of concern is water infiltration through masonry in a few areas. Another area of concern is the building energy efficiency as the glazing is still mostly original single pane.

New high-efficient boilers and heating water pumps provide hot water as the primary source of heat. Classroom unit ventilators are the primary means of heating and ventilation within original building classrooms, while baseboard radiation and cabinet heaters supplement the heating in various common spaces and offices. No cooling exists in the original building classrooms. The Commons and Lumberjack Dining spaces are served by packaged heating and cooling rooftop units, and the classrooms in the two-story LaFarge addition have vertical classroom heating and cooling unit ventilators. Some offices have split system single zone fan coil units dedicated for cooling. HVAC controls are a mix of pneumatic and a variation of building automation system manufacturer components.

Welding lab has a very effective exhaust and make-up air system; while the Automotive Services vehicle exhaust capacity is minimal and lacking.

Many of the plumbing fixtures are original, still functional but the appearance is beginning to deteriorate. Two water cooler stations have bottle fillers and filtered water, while the remaining are older and do not. Roof drains are not properly spaced, nor is the roof properly sloped to drain off storm water. Storm water exits the roof through overflow scuppers and is causing damage to the Automotive area.

The building is not fire sprinkled, and because of the type of concrete planked ceiling construction, would be difficult to install fire sprinklers that does not have much of the fire protection piping fully exposed.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 50 percent of the building lighting fixtures retrofitted to LED tubes. Minimal emergency egress lighting exists, and most of the exit signs are original to the building's initial construction. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in fair condition with limited spare capacity and should be replaced to allow for additional future loads. Select areas have been renovated and both lighting switches and receptacles have been replaced, however any the remaining devices that are original should be replaced. The existing fire alarm system panel is no longer supported by Simplex and should be replaced with a new code-compliant voice annunciation style system.

A drive west of Besser Technical Center accesses parking Lot B which serves as the main parking lot for the facility. A concrete loop drive in front of the building provides additional access to Lot B, barrier free parking at the front entrance, and provides access to a drive for the east enclosed lot between Besser Technical Center and the Newport Center. This drive, off the loop on the east side of the facility also serves as access to Lots F, N, W, and E.

The pavements for the west drive, Lot B, and the east enclosed lot are aged and should be replaced. They are still in serviceable condition for their age, but potholes and pavement cracks are present. These have been treated to

maintain longevity. However, the potholes and alligator cracking indicate a weakening of the base material and any new pavement treatments will be less effective. There are some curbs in poor condition on the south side of Lot B and they should be replaced when Lot B is reconstructed. When considering reconstruction for Lot B, a parking count study is advisable. Reconfiguring the lot size to meet current needs may reduce the amount of reconstruction required.

The concrete loop drive, as well as the east drive off the loop, are in good condition. Some curbs around the loop are damaged, most likely from plowing. They are still serviceable, and replacement is not necessary.

Runoff from these parking lots is captured in a storm water system with the exception being the area in front of the loading dock on the west side of the facility. There is a catch basin in this location that's not connected to the existing system. The structure acts as an infiltration basin and the capacity, at times, is inadequate and ponding will occur.
The stormwater system is original and installed over 50 years ago. The culverts between the catch basins should be scoped with a camera to note their condition and the basins should be cleaned out if needed. The infiltration basin should be connected into the stormwater system if possible.

Observation Highlights

- **Civil**
  - Some minor cracking in concrete sidewalks. Concrete at west entry heaved, chipped.
  - Some washout at roof drain outlets.
  - Asphalt pavements are serviceable but in need of replacement.
  - Campus wayfinding signs are faded and aged. New signage should be considered throughout the campus.

- **Structural**
  - Block wall sealant at exterior control joints at end of life, due for replacement.
  - "Dox" plank structural system sagging, cracked – never tested to address structural integrity issue. Vertical displacement observed at soffit. Spalling block in a few locations.

- **Architectural**
  - 1996 built-up roof with membrane past useful life. Newer 2008 roofing close to end of life. Recommend replacing all roofing.
  - Masonry above kitchen wall needs to be sealed as well as exterior wall at commons to prevent water from infiltrating through block.
  - Original single pane storefront/windows past useful life and in need of replacement. Recommend replacing throughout building for energy savings. HM windows at Computer Commons are in need of replacement due to water infiltration at heads.
  - Exterior doors are Aluminum single pane or HM in poor condition and/or rusting and in need of replacement. Recommend replacing throughout building for energy savings.
  - Original interior doors have scratched finish/veneer damage. Recommend replacing all original doors.

- Suspect ACM floor tile in some areas of the building is asbestos and should be remediated and new flooring installed.
- Carpet at end of life in most areas of building.
- Original gang restrooms in need of updating.
- Science classroom casework in poor condition. Recommend replacing.

- **Mechanical**
  - Many of the plumbing fixtures are original to the 162 building. While the function of the fixtures and flush valves appear to be working, appearances are deteriorating.
  - The five older unfiltered water coolers and porcelain drinking fountains need to be replaced.
  - Several stormwater roof drain sumps are not insulated or poorly insulated, that can lead to condensation and dripping. Sumps and drains should be insulated.
  - Unit ventilators in classrooms are original to the building, quite noisy and disturbing. Replace unit ventilators and add DX cooling coils (placed on roof if possible) so that rooms can be individually air conditioned.
  - Cabinet heaters within the common corridors are original. Heaters appear to be functioning, but cabinet housing is in poor condition.
  - Provide ventilation for Offices 126A and 126B.
  - Provide ventilation for the Computer Center second floor corridor/lounge area.
  - Automotive Services exhaust system capacity is lacking for the number of vehicle exhaust hoses attached.
  - Controls are a mix of original pneumatic, and a variation of building automation controllers, devices and trunk lines. Convert all original pneumatic and integrate current automation systems into an integrated controls system campus wide.

- **Electrical**
  - Existing Main Panel and branch circuit panels should be replaced. Panels are past their useful life expectancy and have limited space/spare capacity.
  - Emergency lighting was very minimal in main corridors stairwells and not present in all required areas (toilet rooms, interior/window less rooms, lab type classrooms, etc.)
  - Several of the original exit signs remain and should be replaced with LED source signs with built-in emergency battery back-up. Some areas also have missing exit signs.
  - Existing fluorescent lighting and older/damaged fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
  - The original brown receptacle devices and light switches should be replaced with new to ensure proper and safe operation when used.
  - Existing data/communication wiring was observed to be functional and installed to serve workstations as needed. Wireless access points were observed and operational.
  - Fire alarm original, not ADA complaint. Replace with new modern voice annunciation style system.

COST SUMMARY - BESSER TECHNICAL CENTER

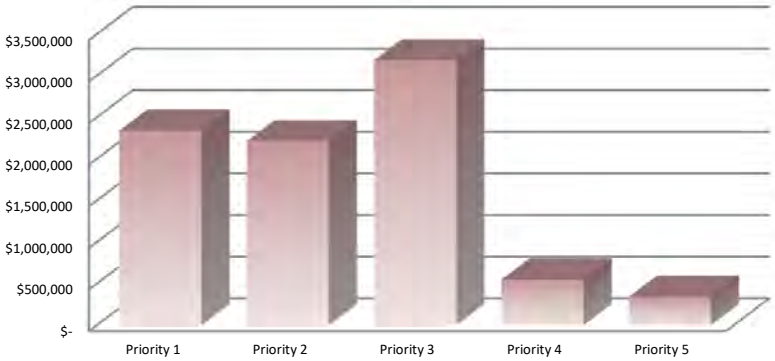
Besser Technical Center

Facility Size (Gross)	76,140		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	1962				
Year of renovations	1996, 2008, 2022		Replacement Value =	$26,649,000	$350 /SF
Facility Type	Votech, Classroom, Kitchen/Food Service, Administration				
			DM =	$8,632,395	
Number of Floors	2 story		FCI =	0.32	(Fair condition / normal renovation)
Total	$ 8,632,395	Per Square Foot	$ 113.38		

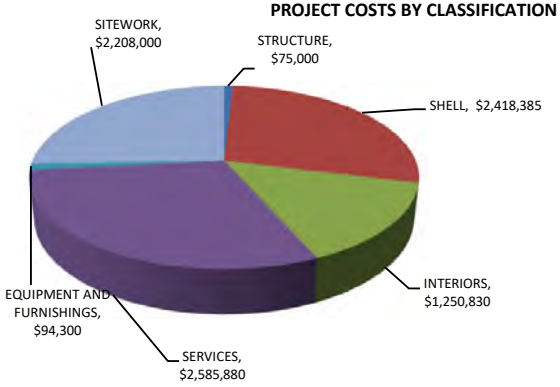
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ 75,000	$ -	$ -	$ -	$ 75,000
B. SHELL	$ 1,730,260	$ 648,450	$ 39,675	$ -	$ -	$ 2,418,385
C. INTERIORS	$ 20,300	$ 568,380	$ 152,500	$ 167,020	$ 342,630	$ 1,250,830
D. SERVICES	$ 585,500	$ 801,665	$ 1,198,715	$ -	$ -	$ 2,585,880
E. EQUIPMENT AND FURNISHINGS	$ -	$ 94,300	$ -	$ -	$ -	$ 94,300
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ 3,900	$ 26,250	$ 1,795,150	$ 382,700	$ -	$ 2,208,000
	$ 2,339,960	$ 2,214,045	$ 3,186,040	$ 549,720	$ 342,630	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Newport Center

Facility:	**Newport Center**
Use Type(s):	Athletic, Votech, Classroom, Library, Auditorium, Administration/IT
Built:	1996
Area:	70,790 SF
Floors:	1 story

Summary

Newport Center was built in 1996 with a remodel to machine shop in 2022. Exterior masonry construction is aging well. Mostly interior materials are original, and some are due for replacement including select doors, restroom sinks and partitions, and flooring.

The classrooms and Fletcher Library are served by a variable volume central heating and DX cooling air handling unit and a return/exhaust fan located in the mechanical room. Air distribution to each classroom is regulated with variable air volume boxes with reheat coils. Heating water is generated from the Besser Tech Center Boiler Room and separate distribution pumps serve the Newport Center. Air Cooled condensing unit is located outside at grade.

Auditorium/Lecture Hall has a dedicated air handling unit with hot water heat and DX cooling coil. Park Arena has two large, packaged gas-fired heating, ventilating and cooling rooftop units. The locker rooms have a separate exhaust air handling unit with heat recovery coil and a pumped glycol loop to preheat outside air in AHU-2 serving the locker rooms. The Marine Technology Room and CAD Lab has a dedicated packaged rooftop unit, and the Reznor gas-fired heating-only rooftop unit serving the toilet rooms in the Marine Center is in need of replacement.

Building automation controls within the building are a mix of older pneumatic (replace), and new "Staefa Talon" controls that operate on the campus wide web platform.

Plumbing fixtures in the main building are in good condition. Toilet room fixtures in the Marine Technology toilet rooms are old and in need of replacement. The 500-MBH Lochinvar domestic water heater and large hot water storage tank in the mechanical room should be replaced, as well as the 199-MBH 100-gallon capacity 78% efficient water heater serving the kitchen.

A wet-pipe fire sprinkler system exists throughout the building and has a 30-hp fire pump that should be replaced.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 50 percent of the building lighting fixtures retrofitted to LED tubes. Minimal emergency egress lighting exists, and most of the exit signs are original to the building's initial construction. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition with spare capacity and replacement parts readily available. Select areas have been renovated and both lighting switches and receptacles have been replaced, however any the remaining devices that are original should be replaced. The existing fire alarm system panel is no longer supported by Simplex and should be replaced with a new code-compliant voice annunciation style system.

Access to the Newport Center parking Lot C is from the drive on the west end of the campus and continues north past Lot B. The asphalt pavement is in serviceable condition for their age, but pavement cracks are present throughout and potholes are beginning to form. This indicates a weakening of the base material and deterioration of the pavement will accelerate. Crack sealing will slow the deterioration, however this treatment will need to be applied every 1-3 years and may ineffective on wider cracks.

Runoff is sheet flow across the parking lot to the north.

Observation Highlights

- **Civil**
  - Concrete sidewalks are in good condition with some minor cracking.
  - Asphalt pavement is serviceable but in need of replacement.
  - Campus wayfinding signs are faded and aged. New signage should be considered throughout the campus.

- **Structural**
  - Pressure bar attachment at transition from low roof to arena wall has no counter-flashing; just caulk bead along top edge. Caulk is cracked, potentially allowing water on wall or from cavity to run inside building at transition bar location.
  - Extensive patching dating to original installation, particularly at seams.
  - Water infiltration at split faced, single width masonry walls.
  - Control joints at gymnasium require tooling and caulk.
  - Extensive concrete floor cracking at east machine shop require tooling and epoxy crack fill.

- **Architectural**
  - Membrane roofing past its useful life and needs replacing as staff reports leaks at gym RTU.
  - Glazing at Gym high windows needs replacing.
  - Select exterior doors in poor condition including faded leafs and rusting frames at HM doors and corrosion at AL doors. Recommend removal and replacement with FRP doors and aluminum frame.
  - Select original interior doors have scratched finish/veneer damage. Recommend replacing these doors.
  - Original VCT floor tile throughout building with cracks at various areas should be replaced with LVP or LVT.
  - Carpet at end of life in most areas of building.
  - Original restrooms in fair condition. Recommend updating partitions, sinks and mirrors.

- **Mechanical**
  - Install filter on the water cooler outside of Lounge 118A.
  - Upgrade the plumbing fixtures in the Marine Technology wing.
  - Replace the 500-MBH domestic hot water boiler, storage tank, recirculation pump and piping with 199 MBH and 100-gallon capacity sealed combustion water heaters. Verify domestic water load before replacing with two and possibly combine kitchen hot water load with these heaters, eliminate the dedicated kitchen heater which is near the end of its useful life and install a dedicated 140 F hot water line to kitchen.
  - Replace the Reznor make-up air unit and exhaust fan serving the Marine Tech toilet rooms with a new Energy Recovery Unit and reheat hot water coil in supply duct.
  - Replace the air-cooled condensing unit located on grade north of the Marine Lab and East of the Lounge. New higher-pressure refrigerants will require that the ACCU, refrigerant piping and DX coil be replaced.

- There is no fresh air supplied to the toilet and locker rooms east of Park Arena. The rooms are significantly negative with respect to the corridor; so much so that the doors are held open and the air rushing past the door makes a loud wind noise. Recommend installing an ERV shared between these two restrooms.
- AHU-2 serving the locker rooms has an energy recovery water loop to capture energy from the exhaust air stream. When this AHU requires replacement, consider also eliminating the exhaust fan, glycol energy recovery loop, pump and hydronic specialties, and installing two energy recovery ventilators (one for each locker room) and duct reheat coils.
- Replace the Marine Tech/CADD Lab Rooftop Air Handling Unit.
- Properly distribute air and install zoned VAV boxes in Informational Office 108 where walls had been constructed to provide several enclosed offices in a previously large, open room.
- Service the rooftop unit RTU-6 on the Park Arena – believed to be not working due to relay failure; RTU-5 is handling the Arena load. The ventilation and heating load normally can be met with one of the two RTU's, with operation of units alternated via the BAS system. However, events with large crowd capacities likely require the use of both units to meet the ventilation load requirements. Add carbon dioxide space sensors in the arena and modify the control sequence for the RTU's to introduce only the ventilation air necessary to satisfy the occupant load.
- Upgrade controls to eliminate the pneumatic components that still exist and place all HVAC control onto the Building Automation System. Controls replacement will require variable air volume (VAV) boxes that regulates air to each zone to be replaced.
- Fire suppression riser leaking at valve, likely packing failure.
  The fire pump impeller was noted to be in poor condition. Recommend replacing the 30-hp fire pump.

- **Electrical**
  - Emergency lighting was very minimal in main corridors and not present in all required areas (toilet rooms, interior/window less rooms, lab type classrooms, etc.)
  - Existing fluorescent lighting and older/damaged fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
  - The original brown receptacle devices and light switches should be replaced with new to ensure proper and safe operation when used.
  - Existing data/communication wiring was observed to be functional and installed to serve workstations as needed. Wireless access points were observed and operational.
  - Fire alarm original, not ADA complaint. Replace with new modern voice annunciation style system.

- **Equipment and Furnishings**
  - Consider replacing the six-burner stove with standing burner pilots with a new electronic spark type. All six stove pilots create a significant amount of heat.

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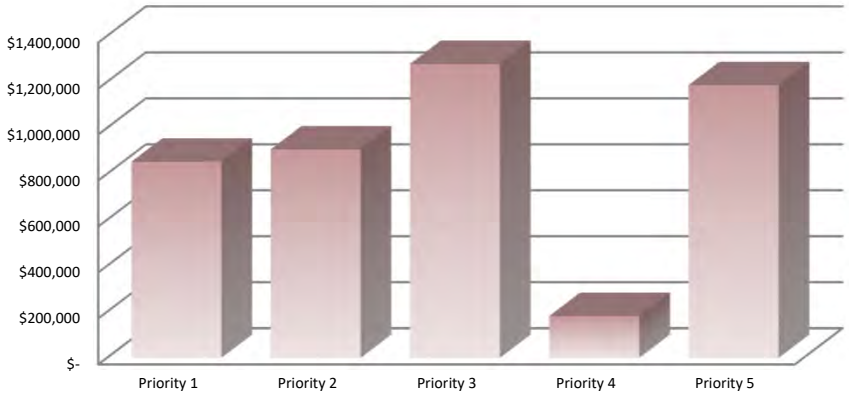
NEWPORT CENTER

Facility Size (Gross)	70,790	FCI =	Deferred Maintenance / Current Replacement Value
Year Original Const.	1996, 2022		
Year of renovations	0	Replacement Value =	$24,776,500 $350 /SF
Facility Type	Athletic, Votech, Administration, Classroom, Library, Auditorium	DM =	$4,410,353
Number of Floors	1 Story	FCI =	0.18 (Good condition / in need of normal renovation)
Total	$ 4,410,353 Per Square Foot	$ 62.30	

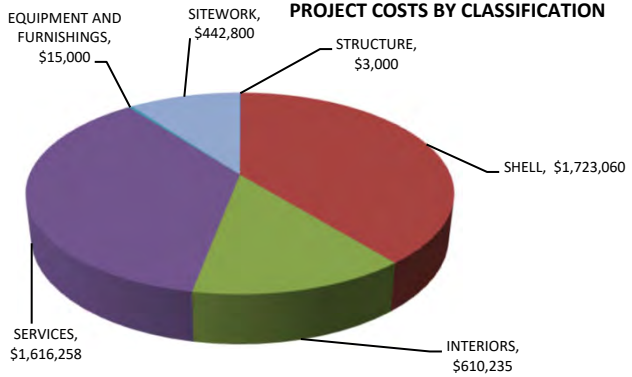
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ 3,000	$ -	$ -	$ 3,000
B. SHELL	$ 397,640	$ 78,500	$ 19,800	$ 40,000	$ 1,187,120	$ 1,723,060
C. INTERIORS	$ 10,800	$ 408,635	$ 48,000	$ 142,800	$ -	$ 610,235
D. SERVICES	$ 445,500	$ 403,253	$ 767,505	$ -	$ -	$ 1,616,258
E. EQUIPMENT AND FURNISHINGS	$ -	$ 15,000	$ -	$ -	$ -	$ 15,000
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 2,000	$ 440,800	$ -	$ -	$ 442,800
	$ 853,940	$ 907,388	$ 1,279,105	$ 182,800	$ 1,187,120	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Donnelly Natural Resources Center

Facility:	**Donnelly Natural Resources Center**
Use Type(s):	Classroom, Lab
Built:	1972
Area:	39,525 SF
Floors:	4 stories

Summary

Donnelly Natural Resources Center was built in 1972 with an interior science room remodel in 2006. Most of the building still has original exterior and interior materials. The façade of the building is in good condition, but an area of concern is the balcony and the eye brow roofs as they are deteriorating to the point of posing a safety hazard as pieces of these components are coming apart and falling off. Roofing, storefront, doors, restrooms, ceiling and flooring in need of replacement. Another area of concern is the original elevator with antiquated equipment which could potentially pose a safety hazard.

A large air handling unit in the mechanical penthouse has an old inefficient 40-hp motor and no cooling serves the primary HVAC for the building. This unit should be replaced with a new efficient variable volume unit with a cooling coil. All constant volume boxes serving the classrooms should be replaced with VAV reheat boxes.

The large Lecture Hall 101 is served by an AHU located in a 48" crawl space below. This unit, along with a DX cooling unit, is original, currently not operational, and very difficult to service or replace. This AHU should be replaced with a packaged rooftop unit. A smaller Trane air handling unit with a preheat coil, cooling coil and reheat coil suspended in the penthouse serves the fourth floor Board Room and is in good condition.

Three 800-MBH Lochinvar "Knight" boilers installed in 2015 supply the heating water for the building. Primary heating water distribution pumps are old and should be replaced along with the piping in the penthouse at the boilers.

Fume hood exhaust should be discharged with upblast fans on the roof located at the termination of the exhaust duct; and when combining exhaust ducts from multiple hoods, the exhaust fan needs to be a variable volume regulated by static pressure within the duct system or velocity controls at the face of each hood. Because the hood exhaust is new, and the exhaust chases terminate with the original louvered penthouses on the edge of each roof, no recommendations to change the hood exhaust is being recommended currently. Make up air for the exhaust hoods also will be required through the central ventilation system. Return air from the room would need an automatic modulating damper actuator to close as room differential pressure became more negative with respect to the corridor.

A greenhouse extends outside the main building exterior wall at the exterior of rooms 110 and 112. The greenhouse has infrared heaters, and a Wadsworth controller operates the openable skylight panels at the peak of the greenhouse. There are hot water fin-tube heaters that line the outside of the greenhouse.

Pneumatic controls still exist controlling cabinet heaters and convectors, and newer Talon Staefa building automation controls serve the reheat at the constant volume boxes. Pneumatic thermostats are old and in some areas like the women's toilet room on the first floor are leaking significant quantities of air.

Plumbing fixtures within the unisex barrier free bathroom on the first floor is in good condition. Plumbing fixtures in the women's private restroom at the south end of first through third floors are in fair working condition, but the room, and especially toilet stall is very small. Fixtures within the large toilet rooms are in good condition, however, flush valves and faucets are aged and should be replaced with touchless sensor operated. The electric water cooler on third floor does not have a bottle filling station. Lab epoxy sinks and turrets are in good condition.

No fire sprinkler system exists in this building.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 40 percent of the building lighting fixtures retrofitted to LED tubes/lamps. Minimal emergency egress lighting exists. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs. A new and more user friendly lighting control system would be installed in the lecture hall with the LED replacement.

The main power distribution panel of the building is in fair condition with limited capacity and replacement parts not readily available. The existing branch circuit breaker panels present on each floor that are old and no longer manufactured that should be replaced. Select areas have been renovated and both lighting switches and receptacles have been replaced, however most of these devices are original and should be replaced. The existing fire alarm system panel is no longer supported by Simplex and should be replaced with a new code-compliant voice annunciation style system.

Donnelly Natural Resource Center is served by parking Lot N which is accessed off the east side of the loop in front of Besser Technical Center or through Lots E and W. This facility is also served by parking Lot C on the west side of the building. Refer to the Newport Center Executive Summary for information on this parking lot.

Parking Lot N has concrete pavement which is in good condition. Runoff to conveyed through a concrete curb and gutter system.

Observation Highlights

- **Civil**
  - Concrete parking lot, sidewalk, and curbs & gutters are in good condition with minor cracking.
  - Campus wayfinding sign is faded and aged. New signage should be considered throughout the campus.

- **Structural**
  - Spalling/cracking of concrete waffle slab overhang and balcony floor at fourth floor boardroom, reinforcing exposed.
  - Settlement at first floor room 110, at building expansion joint. Floor and wall cracked and moved, appears to have stabilized. Engineer reports that no further movement anticipated.

- **Architectural**
  - Original elevator at end of useful life. Antiquated controls and equipment are a potential hazard. Recommend replacing.
  - Roof system has ponding issues, a hole in the membrane and past the end of its life. Recommend replacing roof membrane.
  - Original single pane storefront/windows past useful life and in need of replacement. Recommend replacing throughout building for energy savings.
  - Original exterior doors in single pane glazing, aluminum doors with corrosion, deteriorated wood doors or HM doors. Recommend removal and replacement.
  - Original 2x4 acoustical suspended ceiling tiles are in poor condition with many areas of staining. Recommend removal and replacement.
  - Original interior doors are in fair condition with mixed hardware. Recommend replacing all original doors and hardware.

- Suspect ACM floor tile throughout the building is asbestos and should be remediated and new flooring installed. Stair finish in poor condition causing potential trip hazards and needs to be replaced.
- Carpet at end of life in most areas of building.
- All original restrooms in need of updating.
- Original Auditorium in need of complete remodel including, flooring, ceiling, lighting, acoustical wall treatment and seating.

- **Mechanical**
  - Upgrade toilet room plumbing fixtures in the Women's private restroom at the south end of first through third floors.
  - Replace flush valves and faucets that are aged and worn in all toilet rooms.
  - Replace third floor water cooler with a filtered, bottle filling type.
  - No heating water isolation valves were originally installed to isolate coils or terminal heating units. Recommend installing ball type isolation valves at all coils and other branch circuits to terminal heaters.
  - Replace the existing base mounted primary heating water distribution pumps that are at the end of their useful life with variable speed pumps; and remove the three-way mixing valve and modify the heating water piping as necessary to allow the condensing boilers to "efficiently" operate at a reduced water temperature based on outdoor temperature reset. Asbestos abatement may be required to accomplish the hydronic piping work.
  - Insulate all uninsulated heating water piping and the air separator in the mechanical penthouse.
  - Replace the large constant volume 40-hp central station heating and ventilation air handling unit in the penthouse with a new variable volume air handling unit with heating, cooling and ventilation capabilities.
  - Install a heat pump chiller or an air-cooled condensing unit on the roof to serve the new AHU cooling coil.
  - Replace all constant volume boxes serving each room with Variable Air Volume (VAV) boxes and reheat coils to provide better control of the room's environment.
  - Install a dedicated packaged rooftop heating and cooling unit to serve Lecture Hall 101 and remove from the large central air handling unit. This will permit the College to schedule the lecture hall use on weekends or nights without conditioning the entire building.
  - Chemical storage cabinet vents into fume hood duct and therefore is only venting the cabinet when hood is operating. Consider venting the cabinet separately.
  - There is a residential Magic-Aire Furnace in Room 101 that is dedicated to Room 104, likely due to the fact the room uses formaldehyde. This furnace and outdoor air cooled condensing unit was installed in 1997, at the end of its useful life, and should be replaced.
  - Pneumatic controls still exist, are old, and the thermostat in Women's first floor toilet room is leaking significant air and causing the heating valve on the convector to fail open. Expand the existing building automation system (BAS) controls to replace all remaining pneumatic controls.

- **Electrical**
  - Replace existing main distribution panel.
  - Replace existing branch circuit panels. Some panels at or near capacity. No reported problems.
  - Emergency lighting was very minimal in main corridors, stairwells and not present in all required areas (toilet rooms, interior/window less rooms, lab type classrooms, etc.)
  - Existing fluorescent lighting and older/damaged fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.

- The original brown receptacle devices and light switches should be replaced with new to ensure proper and safe operation when used.
- A 100 KW back-up generator is recommended to be added to power emergency and exit lighting along with other critical loads in the event of normal utility power failure.
- Fire alarm original, not ADA complaint. Replace with new modern system.

COST SUMMARY - DONNELLY NATURAL RESOURCES CENTER

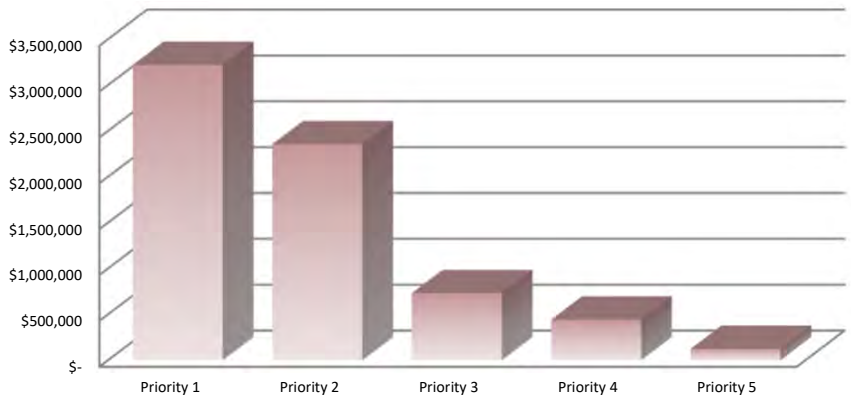
Donnelly Natural Resources Center

Facility Size (Gross)	39,525		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	1972				
Year of renovations	2006		Replacement Value =	$13,833,750	$350 /SF
Facility Type	Classroom, Lab		DM =	$6,878,490	
Number of Floors	4 Story		FCI =	0.50	(Below average condition / marjor renovation required)
Total	$ 6,878,490	Per Square Foot	$ 174.03		

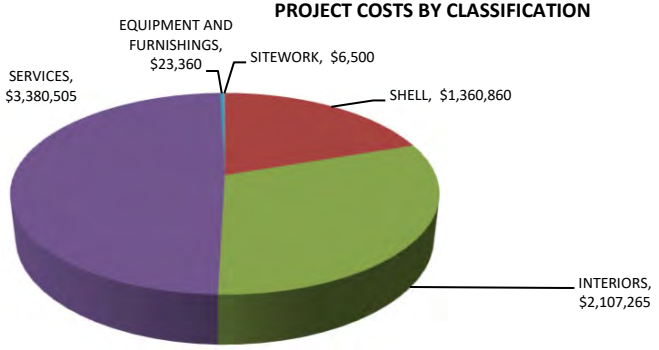
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 673,660	$ 562,200	$ -	$ -	$ 125,000	$ 1,360,860
C. INTERIORS	$ 960,750	$ 587,565	$ 114,950	$ 444,000	$ -	$ 2,107,265
D. SERVICES	$ 1,585,625	$ 1,176,861	$ 618,019	$ -	$ -	$ 3,380,505
E. EQUIPMENT AND FURNISHINGS	$ -	$ 23,360	$ -	$ -	$ -	$ 23,360
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 6,500	$ -	$ -	$ -	$ 6,500
	$ 3,220,035	$ 2,356,486	$ 732,969	$ 444,000	$ 125,000	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



World Center for Concrete Technology

Facility:	**World Center for Concrete Technology**
Use Type(s):	Votech, Classroom, Lab
Built:	2000
Area:	42,180 SF
Floors:	1 story

Summary

World Center for Concrete Technology, built in 2000, is primarily utilized as a general/laboratory/vocational technology classroom building and is aging well. The masonry façade is in good condition as well as structure. The block plant metal roof panels are due for replacing as well as the membrane roof is past its useful life.

The heating requirements for this facility are served by two hot water heating boilers and two base mounted heating water distribution pumps. A large 25-hp variable speed drive central air handling unit with hot water and DX cooling coils condition air that serves the facilities classrooms (except classroom 105) and offices through a variable air volume air distribution system. A separate heating only 10-hp constant volume air handling unit serves the heating, and ventilation needs of the two large concrete lab spaces 107 and 109. An older Johnson Controls "Metasys" building automation system controls the HVAC systems and components.

Plumbing fixture and piping are in good condition. A wet pipe fire protection system with concealed heads serves the classrooms and office spaces within this building.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 30 percent of the building lighting fixtures retrofitted to LED tubes. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition with spare capacity and replacement parts readily available. Select areas have been renovated and both lighting switches and receptacles have been replaced, the remainder of these devices are original and still in good condition. The existing fire alarm system panel is outdated and should be replaced with a new code-compliant voice annunciation style system.

The World Center for Concrete Technology is serviced by Lot W off Woodward Avenue. The pavement is constructed with concrete which is in good condition. A unit paver drive loop and sidewalk are shared with the Electrical Power Technology Center. The sidewalk is in survivable bur fair condition, replacement should be considered. The loop drive is in good condition with miscellaneous pavers requiring replacement or repairs.

North side of the building is gravel and serves as a staging and construction area, and service entrance. It is also shared with the Electrical Power Technology Center. Minor maintenance is required to upkeep the gravel lot.

Runoff on the south side of the facility is conveyed by a storm sewer system. Runoff on the north side is conveyed by sheet flow.

Observation Highlights

- **Civil**
  - Heaving problems at concrete pavers in front drives repaired in 2006.
  - Salt deterioration on bollard light fixtures at front, most lights replaced.

- Unit paver sidewalk is serviceable but could be replaced. Shared with the Electrical Power Technology Center
- Unit paver drive is in good condition with minor repairs needed. Shared with the Electrical Power Technology Center.
- Campus wayfinding signs are faded and aged. New signages should be considered throughout the campus.

- **Architectural**
  - Original roofing membrane roofing past its useful life and needs replacing. Evidence of water leaks at interior of building.
  - Original metal roofing at block plant is nearing end of its useful life. Recommend removal and replacement.
  - Water infiltration at main lobby continues to be an issue, especially at main window wall, flashing may be inadequate, and weeps may not be working.
  - Exposed steel lintels are rusting and need to be protective from further deterioration.
  - Evidence of water infiltration/efflorescence at multiple areas at exterior walls and should be repaired after roof replacement. Evidence of efflorescence at block wall in corridor next to kilns from condensation.
  - Exterior aluminum storefront doors are corroding at bottom of frame. Recommend replacing aluminum storefront system.
  - Exterior HM man and overhead doors are in poor condition and/or rusting and in need of replacement. Recommend replacing throughout the building.
  - Carpet at end of life in most areas of building.

- **Mechanical**
  - Classroom 105 has two ducted 5-ton Liebert process cooling units (PCU'S) above the lay-in ceiling for cooling and heating the room. The units utilize glycol from the glycol coolers outside the mechanical room for cooling the room and heating water for heating. One of the units did not appear to be working and the other unit was operational but very noisy for a classroom environment. It is recommended the PCU's, associated duct work, glycol piping, and glycol coolers be removed and a single packaged gas-fired heating and cooling rooftop unit be installed to serve the classroom.
  - AHU #2 for labs 107 & 109 return air grille in the sidewall appears to be way undersized causing noise levels of 70 dB. Install a larger louver and filter housing right after the return air grille in room 107 due to the dust created by the processes in that room. Access to filter would be completed with the schools lift for maintenance.
  - Replace Johnson Controls Metasys HVAC controls as software is outdated. Replace all controllers and outdated devices as necessary to integrate new controls into the campus wide system.
  - Replace the older style variable speed drive VSD-1 in the boiler room serving the large 25-HP motor on the air handling unit.
  - Replace the Burnham heating water boilers rated at 1,110 MBH with new high-efficient condensing boilers and re-pipe the system so boilers are in parallel not series. Replace Bell & Gossett 3-hp distribution pumps when boilers are replaced.
  - Supply fan SF-3 provides fresh air to the boiler room. Originally installed as a combustion air fan and currently operating continuously, can be controlled on boiler room temperature once boilers are replaced and not run continuously.
  - Exhaust air from return air fan serving 107 and 109 appears to be labeled wrong as outside air. It appears the outside air is introduced through the sidewall into the back of the AHU, while the

return/exhaust air is ducted over the top of the AHU mixing box. Exhaust air continues past the unit and exhausted out the roof (no significant cost impact).

- **Electrical**
  - Power: Voltage fluctuates – usually over. Investigating supply problem with Alpena Power.
  - Past frequent breaker tripping problem solved by redistributing loads on panels for certain areas.
  - Existing fluorescent lighting fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
  - A 80 KW back-up generator is recommended to be added to power emergency and exit lighting along with other critical loads in the event of normal utility power failure (would also serve Electrical Power Technology Center).
  - Fire alarm original and should be replaced with new modern voice annunciation style system.

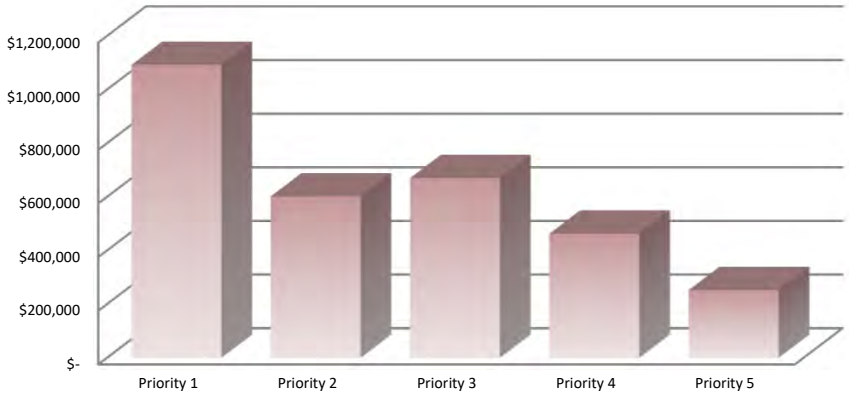
WORLD CENTER FOR CONCRETE TECHNOLOGY

Facility Size (Gross)	42,180	FCI =	Deferred Maintenance / Current Replacement Value
Year Original Const.	2000		
Year of renovations	0	Replacement Value =	$12,654,000 $300 /SF
Facility Type	Votech, Classrom, Lab	DM =	$3,081,935
Number of Floors	1 story	FCI =	0.24 (Poor condition / renovation indicated)
Total	$ 3,081,935 Per Square Foot		$ 73.07

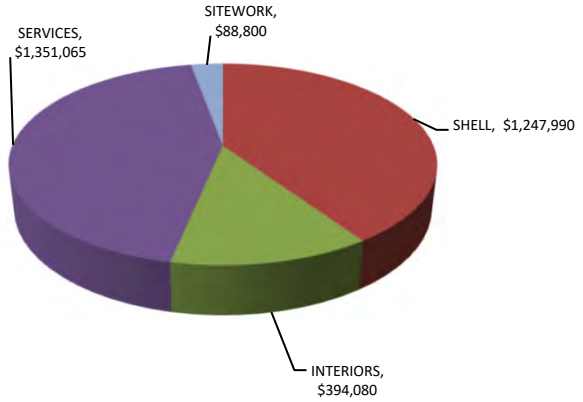
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 670,850	$ 56,000	$ 58,840	$ 462,300	$ -	$ 1,247,990
C. INTERIORS	$ -	$ 141,000	$ -	$ -	$ 253,080	$ 394,080
D. SERVICES	$ 422,000	$ 328,355	$ 600,710	$ -	$ -	$ 1,351,065
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ -	$ -	$ -	$ -
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 77,000	$ 10,900	$ 900	$ -	$ 88,800
	$ 1,092,850	$ 602,355	$ 670,450	$ 463,200	$ 253,080	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Electrical Power Technology Center

Facility:	**Electrical Power Technology Center**
Use Type(s):	Votech, Classroom, Lab
Built:	2014
Area:	12,455 SF
Floors:	1 story

Summary

The EPTC building built in 2014 is primarily utilized as a general/vocational technology classroom building and is in overall good condition. The building is typical commercial construction with masonry walls.

The classrooms and labs are served by a variable volume central air handling unit and a return/exhaust fan suspended in the mechanical room near the ceiling. Air distribution to each classroom is regulated with variable air volume boxes with reheat coils. Two Lochinvar high-efficient condensing boilers and two base mounted heating water pumps serve the heating requirements of the building. Building automation controls within the building are "Staefa Talon" controls that operate on the campus wide web platform. Mechanical equipment is in good condition.

The climbing room has gas-fired radiant tube heaters at the ceiling to keep this room tempered. The vehicle storage garage make-up air ventilation and exhaust systems are lacking volume and a balanced air flow.

Plumbing fixates and piping are in good condition. The building is fully fire protected with a wet-pipe fire sprinkler system.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 20 percent of the building lighting fixtures retrofitted to LED tubes. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition and fed from the World Center for Concrete Technology part of the shared building. Select areas have been renovated and both lighting switches and receptacles have been replaced, the remainder of these devices are original and still in good condition. The existing fire alarm system panel is outdated and should be replaced with a new code-compliant voice annunciation style system.

The Electrical Power Technology Center is serviced by Lot E off Woodward Avenue. The pavement is constructed with concrete which is in good condition. There is also a gravel parking lot adjacent to this Lot E for overflow parking. This could be paved. A unit paver drive loop and sidewalk are shared with the World Center for Concrete Technology. Refer to that executive summary for more information.

North side of the building is gravel and serves as a staging area and service entrance. It is also shared with the World Center for Concrete Technology. Refer to that executive summary for more information.

Runoff on the south side of the facility is conveyed by a storm sewer system. Runoff on the north side is conveyed by sheet flow.

Observation Highlights

- **Civil**
  - Sidewalks are in good condition with minor cracking.
  - Unit paver sidewalks are serviceable but in need of replacement. It's shared with the World Center For Concrete Technology (WCCT), refer to the WCCT Executive Summary.
  - Unit paver loop drive is in good condition with minor repairs required. It's shared with the World Center For Concrete Technology (WCCT), refer to the WCCT Executive Summary.
  - Campus wayfinding signs are faded and aged. New signages should be considered throughout the campus.
  - Gravel parking area should be paved if heavily used.

- **Architectural**
  - One exterior door HM door frame is rusting and in need of replacement. Recommend replacing with aluminum frame and FRP door.
  - A few ceiling tiles are stained. Suspect roof leak and should be investigated.

- **Mechanical**
  - Add filter option to existing water cooler at restrooms.
  - The vehicle garage has a make-up air handling unit with pumped hot water coil for introducing 100% tempered outside air. The AHU is significantly undersized for the exhaust required to remove vehicle exhaust fumes generated as vehicles warm-up and run within the garage for several minutes. Suggest replacing the AHU with one that provides more air flow, is controlled by carbon monoxide and nitrous dioxide sensors, and interlocked with exhaust fans with intakes near both floor and ceiling (Section 404 of the Michigan Mechanical Code).
  - Maintain the garage at a negative pressure with respect to the classroom area by installing an exhaust system interlocked with the make-up air and controlled by carbon monoxide and nitrous oxide sensors within the garage space.

- **Electrical**
  - Emergency and Exit lighting fixtures, several not working. Should have batteries tested/replaced.
  - Existing fluorescent lighting fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
  - A 80 KW back-up generator is recommended to be added to power emergency and exit lighting along with other critical loads in the event of normal utility power failure (would also serve WCCT).
  - Fire alarm original and should be replaced with new modern voice annunciation style system.

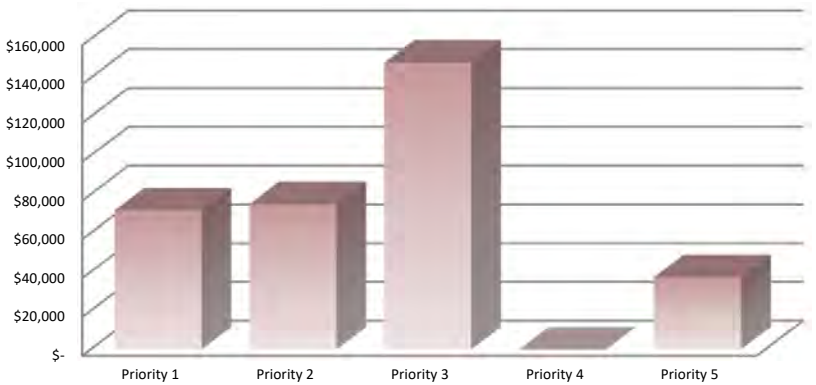
ELECTRICAL POWER TECHNOLOGY CENTER

Facility Size (Gross)	12,455		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	2014				
Year of renovations	0		Replacement Value =	$4,359,250	$350 /SF
Facility Type	Votech, Classroom, Lab		DM =	$331,849	
Number of Floors	1 story		FCI =	0.08	(Excellent condition / typically new construction)
Total	$ 331,849	Per Square Foot	$ 26.64		

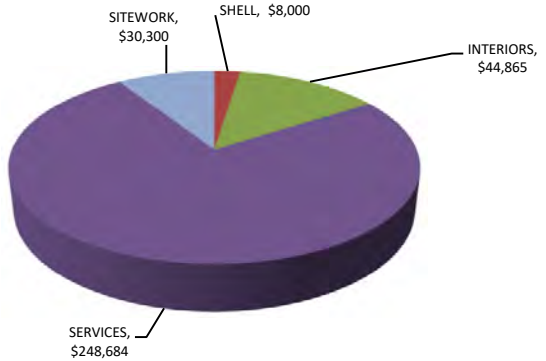
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ -	$ 8,000	$ -	$ -	$ -	$ 8,000
C. INTERIORS	$ 500	$ 7,000	$ -	$ -	$ 37,365	$ 44,865
D. SERVICES	$ 71,200	$ 59,161	$ 118,323	$ -	$ -	$ 248,684
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ -	$ -	$ -	$ -
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 800	$ 29,500	$ -	$ -	$ 30,300
	$ 71,700	$ 74,961	$ 147,823	$ -	$ 37,365	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Joynton Fine Arts Center

Facility:	**Joynton Fine Arts Center**
Use Type(s):	Votech, Classroom
Built:	2007
Area:	14,090 SF
Floors:	1 story

Summary

Joynton Fine Arts Center, built in 2007, is primarily utilized as a fine arts classroom building and is in overall good condition and is aging well.

There are four packaged gas-fired heating, electric cooling rooftop units that serve heating, cooling and ventilation requirements of the building. Units 1, 2 and 3 have a by-pass damper between the main supply and return ducts that is intended to modulate open or closed based on individual room variable volume zone damper positions. Unit 4 is a constant volume rooftop unit serving the main corridor and Gallery spaces. Rooftop units are in good condition, but the by-pass damper does not properly operate resulting in pressure issues between rooms and spaces within the building. New Variable volume Rooftop units should be considered.

No boilers exist in the building and the small quantity of external wall or vestibule heating that exists is electric. Building Automation control is a Staefa Talon system consistent with the campus wide web-based system being implemented.

Toilet room plumbing fixtures, water coolers and room sinks are in good condition. High-efficient domestic water heater has a 60-gallon, 125-MBH capacity and is in good condition. The building is fully fire protected by a wet-pipe fire sprinkler system.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes/CFLs with approximately 50 percent of the building lighting fixtures retrofitted to LED tubes. Battery operated emergency egress lighting exists, is in good condition and provides adequate coverage necessary. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition with spare capacity and replacement parts readily available. Existing sub-panels are also in good condition with adequate spare capacity. Switches and receptacle devices are in good overall condition. The existing fire alarm system panel is no longer supported by Simplex and should be replaced with a new code-compliant voice annunciation style system.

The Fine Arts Center served by Lot F and is accessed off the east side of the loop drive in from of the Besser Technical Center or through Lots E and W. It is also served by Lot W. Refer to the World Center For Concrete Technology Executive Summary for more information.

Lot F has asphalt pavement in good condition. Runoff is conveyed by sheet flow to the surrounding sandy soil for infiltration.

Observation Highlights

- **Civil**
  - Concrete sidewalks are in good condition with minor cracking.
  - The parking lot is in good condition.
  - Campus wayfinding sign is faded and aged. New signage should be considered throughout the campus.

- **Architectural**
  - Exterior HM doors on north side of building in poor condition including rusting leafs and frames. Recommend removal and replacement with FRP doors and aluminum frame.
  - Membrane roofing is nearing end of its useful life and has ponding issues. Recommend remove and replace.
  - A few ceiling tiles are stained. Suspect roof leak and should be investigated.

- **Mechanical**
  - Replace the two sets of water coolers with filtered type coolers that have bottle filling stations.
  - Toilet room plumbing fixtures are in good condition, but the chrome finish of the flush valves is starting to deteriorate. This can be caused by chlorinated chemical cleaners that are not recommended on certain chrome and stainless-steel finishes.
  - Rooftop units (RTU-1, 2 and 3) have bypass duct and damper between the main supply and return ducts that are meant to modulate open or closed to maintain constant volume flow through the rooftop unit when the individual room zone dampers modulate. These systems are not very reliable and lead to negative or positive pressure issues within the building that can be intensified as dust collector in the Clay Room and other exhaust fans are started/stopped. Utilizing more extensive pressure sensing controls within the space and duct work to control the dampers may minimize the pressure issues experienced.
  - A dedicated make-up air unit interlocked with the roof exhaust fan that serves the Clay Room and Glaze Room may be needed to truly minimize the pressure issues within the building.
  - A dedicated make-up air unit should be installed to serve the rooms the collector exhausts. These include the Mud Room mixing bowl, Sculpting Room table, and Glaze Room wheel and work bench.

- **Electrical**
  - Replace existing lighting throughout building with LED
  - Replace existing fire alarm system.

COST SUMMARY - JOYNTON FINE ARTS CENTER

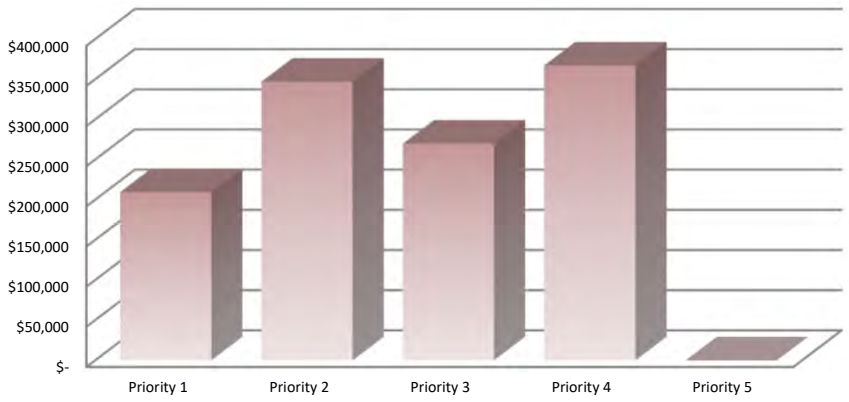
JOYNTON FINE ARTS CENTER

Facility Size (Gross)	14,090		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	2007				
Year of renovations	0		Replacement Value =	$4,931,500	$350 /SF
Facility Type	Votech, Classroom		DM =	$1,193,576	
Number of Floors	1 Story		FCI =	0.24	(Good condition / renovations occur on schedule)
Total	$ 1,193,576	Per Square Foot	$ 84.71		

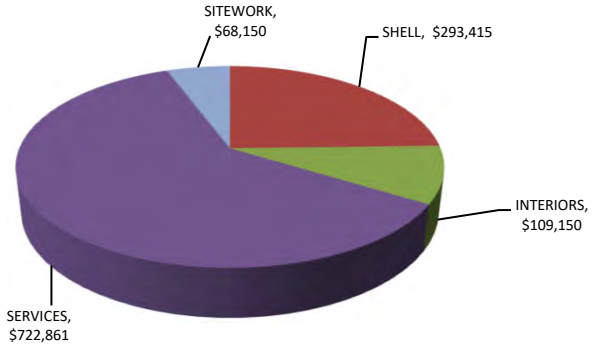
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 51,250	$ -	$ -	$ 242,165	$ -	$ 293,415
C. INTERIORS	$ 5,000	$ 31,500	$ 72,650	$ -	$ -	$ 109,150
D. SERVICES	$ 153,350	$ 309,746	$ 134,765	$ 125,000	$ -	$ 722,861
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ -	$ -	$ -	$ -
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 5,750	$ 62,400	$ -	$ -	$ 68,150
	$ 209,600	$ 346,996	$ 269,815	$ 367,165	$ -	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



College Park Apartments

Facility:	**College Park Apartments**
Use Type(s):	Residence, 16 Units Total (2 Buildings)
Built:	1997
Area:	18,065 SF – Total Area
Floors:	2 stories

Summary

The 2 residence halls were built in 1997 and are wood stick built. The buildings are aging well but are mostly original and in need of exterior and interior updating including roofing, siding, interior finishes, bathrooms and kitchens.

Each apartment has an older 80% efficient gas-fired heating-only furnace within the apartment that serves the heating requirements of the unit. Toilet room exhaust fans exist but are marginally sized. A 40-gallon, 40 MBH gas-fired domestic water heater installed in 2019 provides hot water for the two showers, bathroom lavatories, and kitchen sink. The capacity of the water heater to serve two showers is marginal. Plumbing fixtures are old.

No fire sprinkler system exists in the apartment units.

Existing apartment units are served with a separately metered 100A, 120/240V single phase, 3 Wire electrical panel located in the dining room area of the kitchen. The existing standard breakers should be replaced with arc fault interrupting type circuit breakers to meet current code and provide protection against slow arcing fire dangers. A surge protective device should also be added to the existing panel. Existing light fixtures should be replaced with LED source fixtures to minimize the maintenance of lamp replacement. The existing switches and receptacle devices should both be replaced due to their age and high frequency of use.

College Park Apartments are located on the main Alpena campus and accessed from Johnson Street. There is also a gravel drive from Lot E that accesses the north side of the parking lot. The asphalt parking lot is aged and should be replaced. It is still in serviceable condition for its age, but pavement cracking is present throughout the lot. These have been treated to maintain longevity. However, as the asphalt continues to age, treatments will become less effective, and the base material will weaken leading to potholes. There are some concrete curbs & gutters around the parking lot which are in good condition.

The gravel drive from Lot E could be widened to allow for two-traffic. Paving this drive would prevent further soil erosion issues.

The sidewalks in front of the apartments were constructed poorly with the steel reinforcement bar too close to the surface. Above the bar, the concrete has chipped off and the now rusty bar is exposed in places. Previous patching has covered the bar in multiple areas. Though unsightly, with maintenance they are serviceable.

Runoff is conveyed through sheet flow into the adjacent sandy soils for infiltration.

Observation Highlights

- **Civil**
  - Sidewalks were poorly constructed, and maintenance patching is required.
  - Asphalt pavements serviceable but in need of replacement.

- **Architectural**
    - Original asphalt shingles are past useful life. Remove and replace.
    - Multiple places where Novabrick needs repairs.
    - Original 25+ year old vinyl siding in poor condition and in need of being replaced. Recommend removing and replacing.
    - Original windows and entrance doors in fair condition. Recommend removing and replacing.
    - Original 25+ year old interior doors in poor condition including dents and scrapes. Recommend removing and replacing with wood door/frame or for longevity, replacing with commercial door with HM frame.
    - Laminate and Vct in poor condition. Recommend replacing it with LVT/LVP.
    - Carpet at end of life in some areas. Recommend replacing them with carpet squares for ease of repair.
    - Original baths in need of updating. Recommend replacing.
    - Original kitchen casework/counters in poor condition. Recommend replacing.

- **Mechanical**
    - Toilets are aged but still appear to be in working condition. Consider replacing, but as a minimum, replace the supply stop, supply tube and escutcheon plate serving the toilet.
    - Amana furnaces are approximately 80% efficient, age unknown. Consider replacing with high-efficient condensing type furnaces and replace the galvanized flue and combustion air piping with PVC vent piping up through the roof.
    - Consider installing air conditioning on new furnace by adding evaporative coil, refrigerant piping, outdoor air-cooled condensing unit and electrical.
    - Upgrade toilet room exhaust fan and duct work.

- **Electrical**
    - Replace existing breakers with AFCI type.
    - Add SPD to main apartment panels.
    - Replace existing light fixture with LED type.
    - Replace existing switches and receptacle devices.
    - Add site lighting fixtures to parking lot areas.

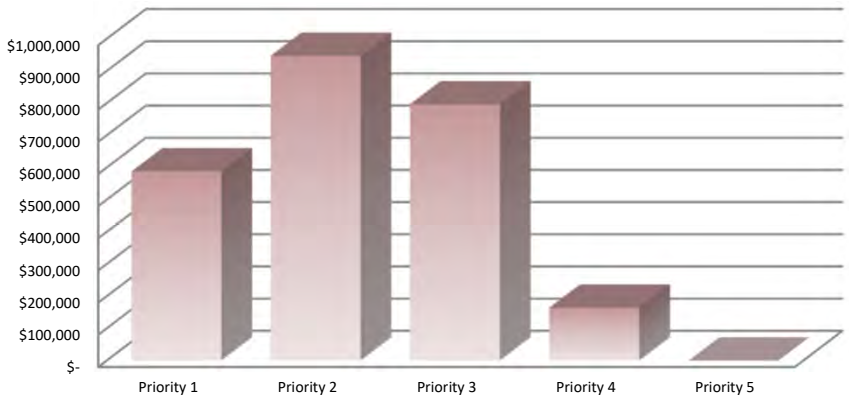
College Park Apartments

Facility Size (Gross)	18,065	FCI =	Deferred Maintenance / Current Replacement Value
Year Original Const.	1997		
Year of renovations	0	Replacement Value =	$5,419,500 $300 /SF
Facility Type	Residence, 16 Units	DM =	$2,495,465
Number of Floors	2 Story	FCI =	0.46 (Below average condition / marjor renovation required)
Total	$ 2,495,465	Per Square Foot	$ 138.14

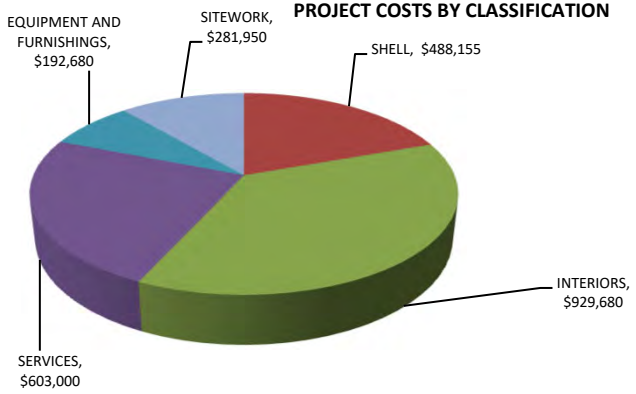
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 179,000	$ 86,080	$ 160,075	$ 63,000	$ -	$ 488,155
C. INTERIORS	$ 407,500	$ 428,920	$ -	$ 93,260	$ -	$ 929,680
D. SERVICES	$ -	$ 432,000	$ 163,000	$ 8,000	$ -	$ 603,000
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ 192,680	$ -	$ -	$ 192,680
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ 1,250	$ -	$ 280,700	$ -	$ -	$ 281,950
	$ 587,750	$ 947,000	$ 796,455	$ 164,260	$ -	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Van Lare Hall

Facility:	**Van Lare Hall**
Use Type(s):	Classroom, Administration
Built:	1957
Area:	41,227 SF
Floors:	1 story

Summary

Van Lare Hall main building was built in 1957 with additions in 1962, 2021 and 2022, with major renovations being done in 2021. The building is utilized for classroom and administrative purposes and is in overall good condition.

Eight packaged gas-fired heating and electric cooling rooftop units installed in 2016 serve the heating, cooling and ventilation requirements for this building. Rooftop units serving multiple spaces are variable air volume type that modulate supply air as required by the individual room variable air volume terminals. Two Lochinvar "Crest" boilers rated at 1,500 MBH, and Grundfos base-mounted heating water distribution pumps installed in 2020 are in good condition. Heating water is provided to the VAV box reheat coils, baseboard radiation along perimeter walls, convectors and cabinet heaters in entries, toilet rooms, etc.

Plumbing fixtures in this building are in good condition. There is a Grundfos packaged domestic water booster system serving this building. A 40-gallon, 4500-watt electric water heater provides domestic hot water. The building is protected by a wet pipe fire sprinkler system.

Existing lighting fixtures throughout the building are a variety of types and are primarily LED with some fluorescent fixtures remaining in the Administration office area. Battery operated emergency egress lighting exists, is in good condition and provides adequate coverage necessary. A building wide replacement of the remaining existing fluorescent fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition with spare capacity and replacement parts readily available. Existing Westinghouse sub-panels that original to the building should be replaced. Switches and receptacle devices in the renovated areas are in good overall condition. The existing fire alarm system panel is a new Edwards iO series code-compliant voice annunciation style system.

Van Lare Hall is located across Johnson Street from the main Alpena campus. It's serviced by Lot V off Johnson Street and a loop drive. The Lot V pavement is constructed with brick paving units. There are areas of minor damage and a tree root, or roots, are starting to heavy the pavement.

The asphalt drive loop is aged and should be replaced. It is still in serviceable condition for its age, but potholes and pavement cracks are present. These have been treated to maintain longevity. However, the potholes and alligator cracking indicate a weakening of the base material and any new pavement treatments will be less effective. The curb & gutter around the loop are in acceptable condition.

Runoff is conveyed by sheet flow to the adjacent lawn areas.

Observation Highlights

- **Civil**
  - Sidewalks are in good condition with minor cracking.
  - The front asphalt drive loop is serviceable but in need of replacement.

- The brick paver parking lot is in good condition, but a tree root is causing some uplift, monitor.
- Campus wayfinding signs are faded and aged. New signages should be considered throughout the campus.

- **Architectural**
  - Parapet flashing missing, damaged or needs to be repaired at 4 locations.
  - A few ceiling tiles are stained. Suspect roof leak and should be investigated.
  - A few original/older doors, ceiling and flooring remain in west wing. Recommend replacing them.

- **Mechanical**
  - Consider replacing the older 4" domestic water gate valves on both sides the water meter with quarter turn butterfly valves for isolation and positive shut-off of water when servicing the buildings domestic water system.
  - Service or replace the exhaust fan serving the toilet rooms in the Nursing Wing. It was not functioning during the day during this assessment. Check controls to make sure it is programmed on.
  - The piping return label at the Grundfos inline pump is incorrect. The piping is "supply" at both ends of the pump; the pump is simply boosting the zone pressure within the supply line.

- **Electrical**
  - Existing fluorescent lighting and older/damaged fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
  - Existing Westinghouse branch circuits should be replaced. Many are full and do not have capacity for additional circuits.
  - The original remaining brown receptacle devices and light switches should be replaced with new to ensure proper and safe operation when used.
  - Existing data/communication wiring was observed to be functional and installed to serve workstations as needed. Wireless access points were observed and operational.

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COST SUMMARY - VAN LARE HALL

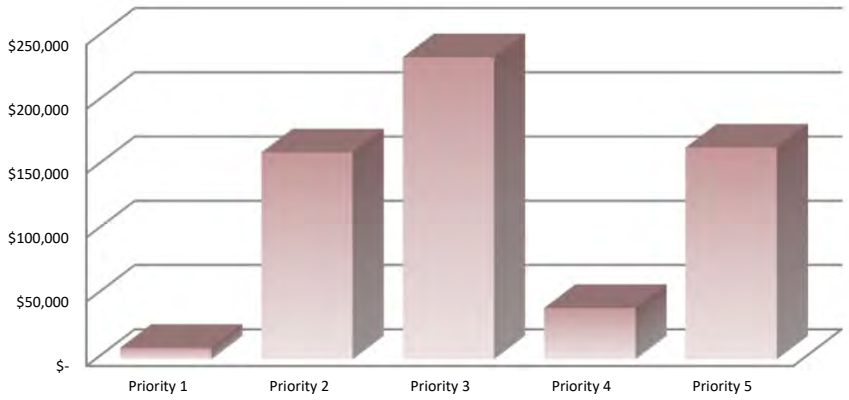
VAN LARE HALL

Facility Size (Gross)	41,227		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	1957				
Year of renovations	1962, 2022		Replacement Value =	$14,429,450	$350 /SF
Facility Type	Administration, Classroom		DM =	$610,153	
Number of Floors	1 story		FCI =	0.04	(Excellent condition / typically new construction)
Total	$ 610,153	Per Square Foot	$ 14.80		

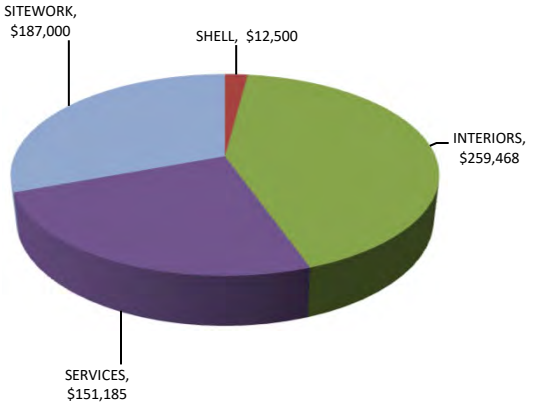
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 4,000	$ 8,500	$ -	$ -	$ -	$ 12,500
C. INTERIORS	$ -	$ 20,760	$ 33,800	$ 40,000	$ 164,908	$ 259,468
D. SERVICES	$ 4,000	$ 125,830	$ 21,355	$ -	$ -	$ 151,185
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ -	$ -	$ -	$ -
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ 1,000	$ 6,000	$ 180,000	$ -	$ -	$ 187,000
	$ 9,000	$ 161,090	$ 235,155	$ 40,000	$ 164,908	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Madeline Briggs University Center

Facility:	**Madeline Briggs University Center**
Use Type(s):	Administration, Classroom
Built:	1969
Area:	3,220 SF
Floors:	1 story

Summary

Originally a fisheries building, the Madeline Briggs University Center, built in 1969, is primarily utilized as a general classroom building. Overall, the building's face brick and structure is in fair condition but many of the original exterior and interior finishes are in need of replacing including storefront, doors, restrooms, ceiling and flooring.

A wall mounted high-efficient "Triangle Tube" gas-fired boiler and "Grundfos" inline circulation pump provides the heating water for the building. Classroom type unit ventilators serve the heating and ventilating requirements of large spaces. Convectors and baseboard radiation provide heat in corridors, toilet rooms, offices and vestibules. Window air conditioning units provide some cooling. All the equipment is old and in need of replacement.

Toilet room fixtures are aged, not ADA compliant and in need of replacement. Water cooler is not filtered, nor does it have a bottle filling station. Plumbing piping is mostly original and in poor condition.

No fire sprinkler system exists. To add fire protection, a new 4" water main to the building will be required.

Existing lighting fixtures throughout the building are primarily fluorescent tubes. Several fixtures have missing, damaged, and/or yellowed lenses; negatively affecting the quality of light output. Minimal emergency egress lighting exists, and most of the exit signs are original to the building's initial construction. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in fair condition with minimal spare capacity. It is recommended that the main panel and sub-panels be replaced to add capacity for future loads. Most of the devices are original and should be replaced. The existing fire alarm system antiquated and should be replaced with a new code-compliant voice annunciation style system.

The University Center is served by parking Lot U off of the west side of the Van Lare Hall loop drive. The parking lot is aged and should be replaced. However, it is in serviceable condition for its age. There are no signs of potholes or allegator cracking which indicates a weakening of the base material. The pavements could be maintained by seal coating and crack fillers but they will continue to degrade.

Runoff is conveyed by sheet flow to the adjacent lawn areas.

Observation Highlights

- **Civil**
  - Exterior walks have settled at entry 3 +/-, trip hazard.
  - Asphalt pavements are serviceable but in need of replacement.
  - Campus wayfinding sign is faded and aged. New signage should be considered throughout the campus.
  - A fire hydrant does not appear to be nearby.

- **Architectural**
    - Durolast roof installed in 2008 and near end of useful life. Currently there is significant ponding on roof.
    - Cracking in face brick in some areas at lintels as well as sections of grouting missing.
    - Original single pane aluminum windows at end of life. Hopper windows with hardware in poor condition. Many units fastened shut.
    - Exterior doors are Aluminum single pane or HM in poor condition and/or rusting and in need of replacement.
    - Suspect ACM floor tile throughout building is asbestos and should be remediated and new flooring installed.
    - Carpet at end of life in most areas of building.
    - Original restrooms in need of updating.

- **Mechanical**
    - Plumbing fixtures are old, sink faucets are worn and manually operated flush valves are corroded.
    - Replace electric water cooler with filtered water cooler to comply with Michigan's "filter First" requirements and include bottle filling station.
    - Domestic water piping is a mix of copper and galvanized without dielectric unions isolating the dissimilar metals. Piping has also been modified several times, poorly sized and often uninsulated. Recommend replacing domestic water piping when renovating toilet rooms.
    - Replace the single Triangle-Tube boiler that is nearing the end of its useful life and single inline distribution pump with two new high-efficient modular wall-mount condensing boilers and pumps to have redundancy.
    - Currently the building lack air conditioning and the rooms that have cooling are served by window air conditioners. These window units do not introduce ventilation air. Recommend replacing the old unit ventilators with new units that have DX cooling coils and install outdoor condensing units for cooling so that the unit ventilators can provide ventilation air while satisfying the heating and cooling requirements of the space.
    - Exhaust fans in toilet rooms are undersized and not effective at exhausting air. Install new exhaust fans and duct work.
    - Pneumatic and stand-alone heating controls are old and the temperature difficult to control. Replace temperature controls with a new building automation system integrated with campus automation system.

- **Electrical**
    - Replace/upgrade existing main electrical panel and sub-panel, original to facility.
    - Add branch circuitry to office areas.
    - Replace existing receptacle devices.
    - Replace existing lighting and switches with LED fixtures and energy saving controls.
    - Fire alarm original, not ADA complaint, not monitored. Replace with new modern system.
    - Replace exterior lighting with LED.
    - Add parking lot lighting.

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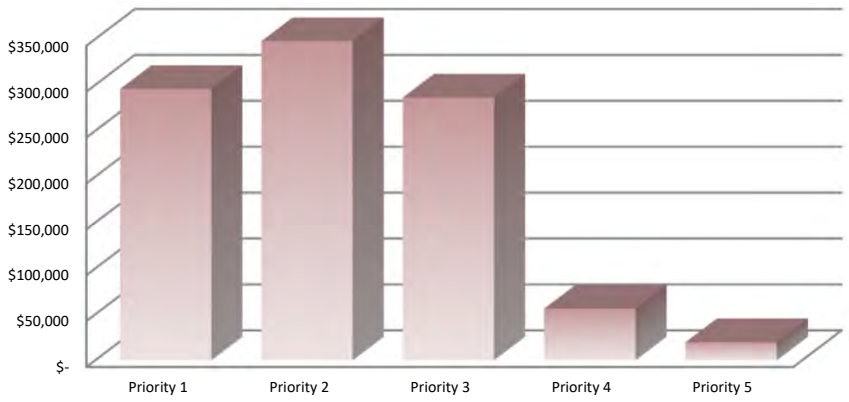
MADELINE BRIGGS UNIVERSITY CENTER

Facility Size (Gross)	3,220		FCI =	Deferred Maintenance / Current Replacement Value	
Year Original Const.	1969				
Year of renovations	0		Replacement Value =	$1,127,000	$350 /SF
Facility Type	Administration, Classroom		DM =	$1,006,334	
Number of Floors	1 story		FCI =	0.89	(Complete facility replacement indicated)
Total	$ 1,006,334	Per Square Foot	$ 312.53		

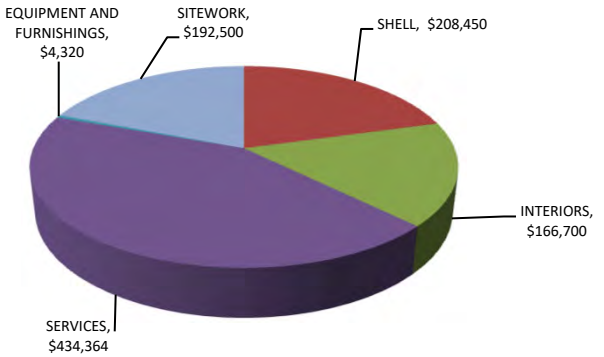
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 115,750	$ 90,300	$ 2,400	$ -	$ -	$ 208,450
C. INTERIORS	$ -	$ 73,260	$ 17,165	$ 56,400	$ 19,875	$ 166,700
D. SERVICES	$ 132,700	$ 177,809	$ 123,855	$ -	$ -	$ 434,364
E. EQUIPMENT AND FURNISHINGS	$ 4,320	$ -	$ -	$ -	$ -	$ 4,320
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ 43,000	$ 6,500	$ 143,000	$ -	$ -	$ 192,500
	$ 295,770	$ 347,869	$ 286,420	$ 56,400	$ 19,875	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Oscoda Campus Building

Facility:	**Oscoda Campus Building**
Use Type(s):	Classroom, Administration
Built:	1977
Area:	31,140 SF
Floors:	3 stories

Summary

Built in 1977 by the military, the three-story building is primarily utilized as a general classroom building. The structure and brick façade are in fair condition, but the building still has the original energy deficient single pane storefront/window system. Another area of concern is water infiltration damage around the parameter of the first-floor exterior walls below ground level. The interior of the building contains mostly original materials that need updating including restrooms, ceilings and flooring.

Newer high-efficient boilers provide the central heat source for the building, but the original "mono-flo" hydronic distribution piping still exists. Terminal heating units are a mix of fan coils, baseboard radiation, cabinet heaters and unit ventilators. Minimal cooling is provided through a few window air conditioning units and DX coils in some unit ventilators or ducted cabinet heaters. In general, the mechanical systems are old, often noisy, poorly applied to the classroom use of the building and lack the mechanical ventilation required by code. HVAC controls are original, pneumatic and in poor operating condition.

Domestic water, waste and vent piping is original to the building but appears to be in fair to good condition with no reported leaks, water pressure or drainage issues. No roof drains exist - just sidewall parapet discharge and some vertical downspouts on the outside of the building.

The building has a wet-pipe fire protection system.

Existing lighting fixtures throughout the building are a variety of types and mix of LED and fluorescent tubes with approximately 50 percent of the building lighting fixtures retrofitted to LED tubes. Minimal emergency egress lighting exists, and most of the exit signs are original to the building's initial construction. A building wide replacement of the existing fixtures to LED with integral controls for daylight harvesting, dimming and occupancy sensing would result in energy savings and reduced maintenance costs.

The main power distribution panel of the building is in good condition with spare capacity and replacement parts readily available. There are some Zinsco brand branch circuit breaker panels present on each floor that are old and no longer manufactured that should be replaced. Select areas have been renovated and both lighting switches and receptacles have been replaced, however most of these devices are original and should be replaced. The existing fire alarm system panel is no longer supported by Simplex and should be replaced with a new code-compliant voice annunciation style system.

Asphalt pavements are most likely original and should be replaced. They are still in serviceable condition for their age, but pavement cracks are present throughout the site. These have been treated to maintain longevity but have widened to the point where future treatments will be ineffective. As water can infiltrate into the base material, the base will weaken. This will lead to potholes and accelerated pavement failure.

Most runoff is sheet flow across the parking lots in the rear of the facility and sheet flow to a curb and gutter system in the front lot. There are some stormwater structures, but they are full of debris and outlet pipes, if any, could not be seen. The site is relatively flat, and native sandy soils control the stormwater runoff through infiltration after it leaves the pavement. However, the site is pitched towards the facility and there does not appear to be a conveyance for water collected by the roof drains.

Observation Highlights

- **Civil**
  - Front entry steps nosing's are missing or loose. They should be repaired.
  - Hot mix asphalt (HMA) parking lots should be replaced or at least maintained by seal coating and crack sealing.
  - A parking study should be conducted to determine the number of vehicles to accommodate on site. Future improvements may allow downsizing of the parking lots, which will lower construction costs.
  - Sidewalks around the west side of the facility are aged but in serviceable condition.
  - There are multiple drainage structures around the building. They should be cleaned of debris and determine if they are connected to a stormwater system.
  - Wayfinding signage should be replaced to match the signs on the Alpena campus for congruence.

- **Structural**
  - Existing masonry control joints need to be tooled and caulked.

- **Architectural**
  - Roofing last replaced in 2012. Staff reports some roof leaks at edges of NE & NW corners. Some ponding of water present. Recommend replacing roofing.
  - Downspout near boiler room is missing.
  - Exposed steel lintels are rusting and need to be protective from further deterioration.
  - Face brick has areas of mortar missing at elevator/stair addition and bricks spawling.
  - Evidence of water infiltration/efflorescence at multiple areas at exterior walls on bottom floor below ground level. Science room 111 is exhibiting signs of mold and should be remediated.
  - Original insulated glazing/sliding aluminum windows past useful life and in need of replacement.
  - Exterior doors are Aluminum single pane or HM in poor condition and/or rusting and in need of replacement. Recommend replacing throughout building for energy savings.
  - Original 2x4 acoustical suspended ceiling tiles are in poor condition with many areas of staining. Recommend removal and replacement.
  - Original interior doors have scratched finish/veneer damage. Recommend replacing all original doors.
  - Original VCT floor tile throughout building should be replaced with LVP or LVT.
  - Carpet at end of life in most areas of building.
  - Front entry stair has cracked floor tile and should be replaced for safety reasons.
  - Original gang restrooms in need of updating, single use bathrooms are in fair condition but could use updating as well. Recommend updating all restrooms.

- **Mechanical**
  - Restrooms are in poor condition and in need of upgrades that include plumbing fixtures.
  - Add a filter kit to each of the electric water coolers.
  - Water color and iron staining within the toilet bowls suggest the original galvanized domestic water piping is corroding on the interior of the pipe giving up iron oxide to the water. Copper piping should be tested for lead if it has not been previously. Domestic water piping should be

replaced in its entirety. Inadequate water pressure at drinking fountains may be due to the piping build-up of iron oxide.

- Currently no roof drains and central storm water discharge exists. Look at installing roof drains, storm drain piping and a retention basin on site.
- The relatively new Lochinvar Knight high-efficient boilers are installed in an old piping arrangement that requires 180 F heating water. These boilers are only 82% efficient at best at that temperature, but can perform at above 95% if piped so that the boilers can operate at return water temperatures below 135 F. The boiler room piping should be modified to remove the old three-way tempering valves and clean up the piping; including removing the Grundfos heating water return pump that had been required by the old boilers for continuous flow through the old boiler, and replacing the original gate valves that may not fully seat closed anymore.
- Remove the abandoned metal chimney flue piping in boiler room as well as up though the central core of the building.
- Install new dedicated split system air conditioning fan coil and rooftop condensing unit to cool the Server Closet on second floor.
- Above-ceiling unit ventilators such as in room 314 and cabinet heaters in many classrooms/offices provide some tempered outside air ventilation. These units are noisy; they often serve more than one room and do not appear to introduce adequate outside air and, in some cases, no outside air.
- Classroom 307 has a split system LG ceiling cassette for cooling; in addition to the above ceiling ducted cabinet heater that introduces outside air through a 6" diameter duct from a sidewall louver. Cabinet heaters are not capable of producing any significant suction pressure to pull air in, thus the outside air ventilation is minimal.
- Excessive humidity problems are evident from sagging ceiling tiles due to the fact the air conditioning that is available from some window units is not run consistently in the summer and most areas do not have air conditioning. A penthouse on the roof with a large central air handling unit, a duct chase down through the center of the building, and variable air volume boxes to serve each room is recommended for this building.
- Currently the hydronic baseboard radiation heat around the perimeter of the building has only three zones, each with a zone pump and self-contained control valves. The heat is not properly zoned or controlled resulting in overheating, uncomfortable learning environments and wasted energy costs. Recommend installing new, taller baseboard enclosure and re-piping the hydronic heat to allow a wall thermostat (same as the VAV thermostat in each space) to control a heating water valve in each classroom or office for individual room control.
- Install energy recovery units, or as a minimum exhaust fan and duct upgrades to serve restrooms for better ventilation
- Replace the original pneumatic controls and self-contained valves that are performing poorly with a new building automation system that can be integrated into the remaining Alpena campus building network. Controls upgrade should be completed at the same time the HVAC components are upgraded as recommended above and not before as issues with the HVAC described cannot be remedied with controls.

- **Electrical**
  - Existing Zinsco Panels should be a priority to replace. Panels are past their useful life expectancy and are not no longer produced.
  - Circuits/outlets should be added to lab tables in science labs. Splitters were observed being used to power the many pieces of equipment required for conducting experiments.
  - Emergency lighting was very minimal in main corridors stairwells and not present in all required areas (toilet rooms, interior/window less rooms, lab type classrooms, etc.)

- Several of the original exit signs remain and should be replaced with LED source signs with built-in emergency battery back-up. Some areas also have missing exit signs.
- Existing fluorescent lighting and older/damaged fixtures should be replaced with LED fixtures with on-board controls for dimming, daylight harvesting and occupancy sensing.
- The original brown receptacle devices and light switches should be replaced with new to ensure proper and safe operation when used.
- A 100 KW back-up generator is recommended to be added to power emergency and exit lighting along with other critical loads in the event of normal utility power failure. The current generator only serves Merit network equipment and should not have other loads added to it.
- Lighting should be upgraded in the rear stairwell.
- Lighting should be added/upgraded at front parking lot and at all building entrances/exits to improve safety and security.
- Existing data/communication wiring was observed to be functional and installed to serve workstations as needed. Wireless access points were observed and operational.
- Existing cameras were present, however more locations could be added to both interior and exterior of building to increase coverage.
- Fire alarm original, not ADA complaint. Replace with new modern system.

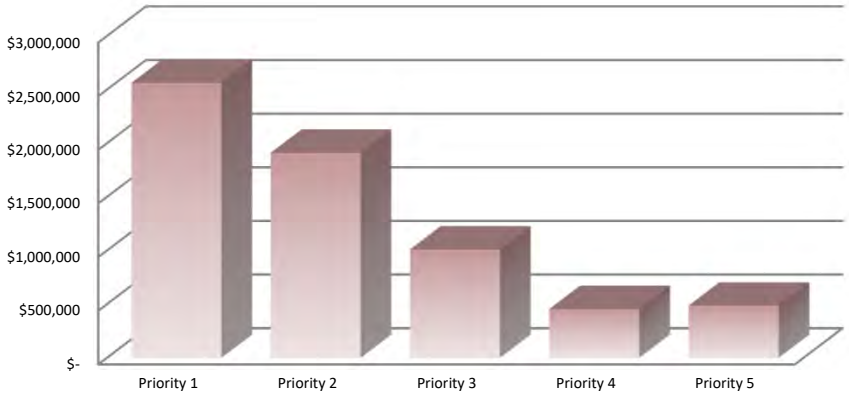
OSCODA CAMPUS BUILDING

Facility Size (Gross)	31,140	FCI =	Deferred Maintenance / Current Replacement Value
Year Original Const.	1977		
Year of renovations	1994 Addition	Replacement Value =	$10,899,000 $350 /SF
Facility Type	Classroom, Administration	DM =	$6,434,882
Number of Floors	3 Story	FCI =	0.59 (Poor condition / renovation indicated)
Total	$ 6,434,882 Per Square Foot	$ 206.64	

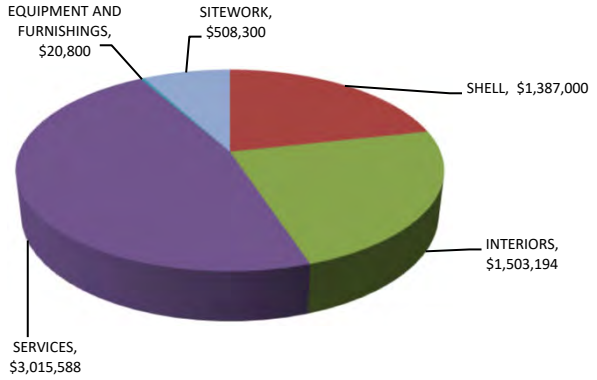
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ -	$ -	$ -	$ -	$ -	$ -
B. SHELL	$ 1,050,325	$ 320,700	$ 3,600	$ 12,375	$ -	$ 1,387,000
C. INTERIORS	$ -	$ 622,822	$ 147,492	$ 244,320	$ 488,560	$ 1,503,194
D. SERVICES	$ 1,493,920	$ 929,793	$ 391,875	$ 200,000	$ -	$ 3,015,588
E. EQUIPMENT AND FURNISHINGS	$ 20,800	$ -	$ -	$ -	$ -	$ 20,800
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 40,000	$ 468,300	$ -	$ -	$ 508,300
	$ 2,565,045	$ 1,913,315	$ 1,011,267	$ 456,695	$ 488,560	

PROJECT COSTS BY PRIORITY



PROJECT COSTS BY CLASSIFICATION



Miscellaneous Campus Buildings

Facility: **Maintenance Garage, Greenhouse, Sports Fields**
Use Type(s):
Built:
Area:
Floors:

Summary and Observation Highlights

- **Civil**
  - ACC owns a total of approximately 700 acres of land.
  - Baseball is played off campus at a field owned by Alpena Public Schools. The field is located next to Sanborn Elementary School in Ossineke Township, approximately 14 miles south of campus.
  - Softball is played off campus at a field owned by Alpena Public Schools. The field is located next to Sanborn Elementary School in Ossineke Township, approximately 14 miles south of campus.
  - There are two other softball fields located northwest of the main Alpena campus at the north end of Wilson Street on ACC property.
  - Alpena Community College owns an irregularly shaped property, approximately 8 acres, in the City of Alpena, off West Miller Street. The property shares multiple soccer fields and a gravel drive and parking lot with adjacent landowners.
  - The Lumberjack Meadows Disc Golf Course is located off Woodward Avenue, north of the main campus. It's maintained by volunteers. The parking area is gravel. ACC is working on a grant to install solar panels near the course.
  - The greenhouse is located between College Apartments and WCCT. The chain link fence is in poor but serviceable condition.
  - The maintenance garage is located north of the World Center for Concrete Technology, accessed off Woodward Avenue.

- **Structural**
  - The maintenance garage has excessive building materials and trees growing directly adjacent to the building wall and foundation system along the north side of the building. This area should be cleaned to prevent deterioration of the wall and foundation system.
  - The maintenance garage floor slab is in jeopardy of losing backfill support along the west wall due to the deterioration of the rim boards and plywood retaining system. Structural fill should be placed to build the grade and reinforce the floor system.

MISCELLAENOUS CAMPUS BUILDINGS

Facility Size (Gross)	N/A
Year Original Const.	N/A
Year of renovations	N/A
Facility Type	Storage Facility, Greenhouse & Miscellaneous Sports Fields
Number of Floors	N/A
Total	$ 167,500

FCI = Deferred Maintenance / Current Replacement Value

Replacement Value = N/A

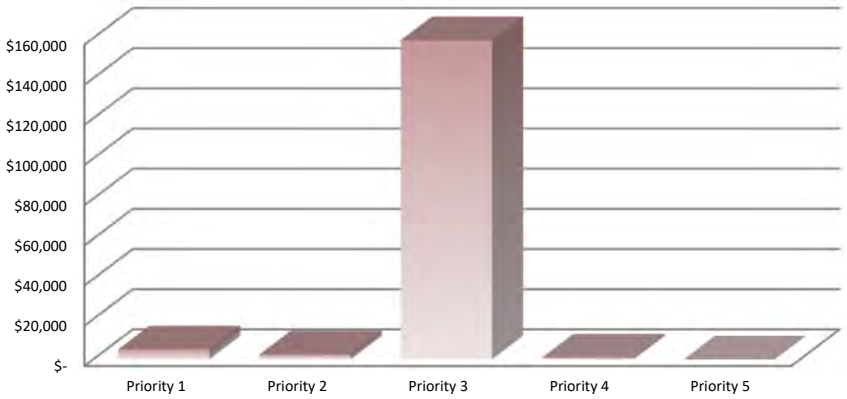
DM = N/A

FCI = N/A

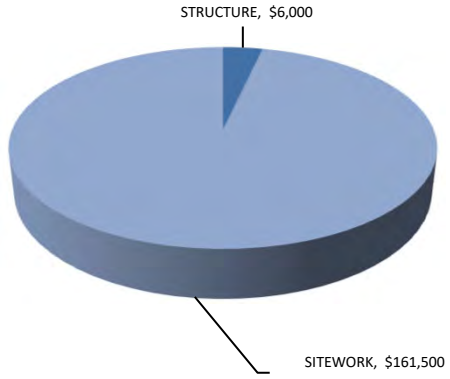
Project Costs by Classifications

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	
A. STRUCTURE	$ 5,000	$ 1,000	$ -	$ -	$ -	$ 6,000
B. SHELL	$ -	$ -	$ -	$ -	$ -	$ -
C. INTERIORS	$ -	$ -	$ -	$ -	$ -	$ -
D. SERVICES	$ -	$ -	$ -	$ -	$ -	$ -
E. EQUIPMENT AND FURNISHINGS	$ -	$ -	$ -	$ -	$ -	$ -
F. SPECIAL CONSTRUCTION AND DEMO	$ -	$ -	$ -	$ -	$ -	$ -
G. SITEWORK	$ -	$ 1,500	$ 159,000	$ 1,000	$ -	$ 161,500
	$ 5,000	$ 2,500	$ 159,000	$ 1,000	$ -	

PROJECT COSTS BY PRIORITY

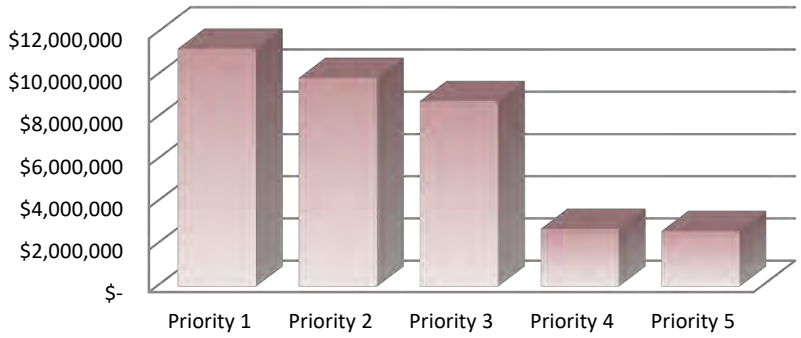


PROJECT COSTS BY CLASSIFICATION



Alpena Community College
Priority Summary Sheet

Building	Priority 1 Amount	Priority 2 Amount	Priority 3 Amount	Priority 4 Amount	Priority 5 Amount	Total Building Amount
Besser Techanical Center	$ 2,339,960	$ 2,214,045	$ 3,186,040	$ 549,720	$ 342,630	$ 8,632,395
Newport Center	$ 853,940	$ 907,388	$ 1,279,105	$ 182,800	$ 1,187,120	$ 4,410,353
Donnelly Natural Resources	$ 3,220,035	$ 2,356,486	$ 732,969	$ 444,000	$ 125,000	$ 6,878,490
World Center for Concrete Technology	$ 1,092,850	$ 602,355	$ 670,450	$ 463,200	$ 253,080	$ 3,081,935
Electrical Power Technology Center	$ 71,700	$ 74,961	$ 147,823	$ -	$ 37,365	$ 331,849
Joynton Fine Arts Center	$ 209,600	$ 346,996	$ 269,815	$ 367,165	$ -	$ 1,193,576
College Park Apartments	$ 587,750	$ 947,000	$ 796,455	$ 164,260	$ -	$ 2,495,465
Van Lare Hall	$ 9,000	$ 161,090	$ 235,155	$ 40,000	$ 164,908	$ 610,153
Madeline Briggs University Center	$ 295,770	$ 347,869	$ 286,420	$ 56,400	$ 19,875	$ 1,006,334
Oscoda Campus Building	$ 2,565,045	$ 1,913,315	$ 1,011,267	$ 456,695	$ 488,560	$ 6,434,882
Miscellaneous	$ 5,000	$ 2,500	$ 159,400	$ 1,000	$ -	$ 167,900
Total Priority Amount	$ 11,250,650	$ 9,874,005	$ 8,774,899	$ 2,725,240	$ 2,618,538	$ 35,243,332



PROJECT COSTS BY PRIORITY

ALPENA COMMUNITY COLLEGE
CAMPUS MAP

N

MAINTENANCE BUILDING

LOT C

NATURAL RESOURCES CENTER

NEWPORT CENTER

LOT N

WORLD CENTER FOR CONCRTE TECHNOLOGY

ELECTRICAL POWER TECHNOLOGY CENTER

LOT W

BESSER TECHNICAL CENTER

LOT B

LOT E

FINE ARTS

LOT F

GREENHOUSE

JOHNSON STREET

COLLEGE PARK APARTMENTS

LOT V

VAN LARE HALL

LOT U

MADELINE BRIGGS UNIVERSITY CENTER

WOODWARD AVENUE

V. Implementation Plan

a. First priority: repurposing the Charles Donnelly Natural Resources Center in order to (1) create a Center for Life Sciences and STEM Innovation; (2) replace or upgrade central building functions such as HVAC, a new roof, upgrade obsolete interior instructional spaces with modern technology; (3) refurbish interior and exterior surfaces; and (4) create open engaging spaces for student learning and collaboration. A more detailed cost breakdown is the subject of an Attachment B document at the end of this plan.

b. Addressing ACC's priority 1 deferred maintenance campus-wide would entail a set of projects estimated to represent a total of $11,250,650 in expenditures.

c. The State Building Authority participated in financing for construction of the ACC Electrical Power Technology Center, which was completed in January 2015. The State Building Authority also participated in the repurposing of Van Lare Hall for the Ruth Julian Hall of Health Sciences, completed in 2021.

d. Distance learning methodologies, particularly videoconferencing systems, are relevant for nursing and nearly every other occupational and General Ed transfer program offered by ACC. Maintenance projects associated with the buildings referenced in Part IV, Facilities Assessment, will require expenditures in excess of $1,000,000.

VI. Source Material: Economic Contribution Study

Fact Sheet: *The Economic Contribution of Alpena Community College* (CCBenefits 2006)

What role does Alpena Community College (ACC) play in the local economy? The results of this study demonstrate that ACC is a sound investment from multiple perspectives. Students benefit from improved lifestyles and increased earnings. Taxpayers benefit from an enlarged economy and lower social costs. And the community as a whole benefits from increased job and investment opportunities, higher business revenues, greater availability of public funds, and an eased tax burden.

<u>ACC stimulates the state and local economy</u>

- The ACC Service Area economy receives roughly **$8.7 million in regional income** annually due to ACC operations and capital spending.
- ACC activities encourage new business, assist existing business, and create long-term economic growth. The college enhances worker skills and provides customized training to local business and industry. It is estimated that the present-day ACC Service Area workforce embodies around **530,100 credit and non-credit hours** of past and present ACC training.
- ACC skills embodied in the workforce of the ACC Service Area where the former students are employed increase regional income by $69.4 million. Associated indirect effects increase income by another **$9.9 million**.

- Altogether, the ACC Service Area economy annually receives roughly **$88.1 million in income** due to the past and present efforts of ACC. Clearly it is accurate to describe ACC as an engine of economic growth.

ACC leverages taxpayer dollars

- The state and local community will see **avoided social costs amounting to $12 per year for every credit earned** by ACC students, including savings associated with improved health, reduced crime, and fewer welfare and unemployment claims.
- This translates to **$387,000 worth of social savings** to the State of Michigan each year as long as students are in the workforce.
- Students benefit from higher earnings, thereby expanding the tax base and reducing the tax burden on state and local taxpayers. When aggregated together, ACC students generate about **$3.5 million annually in higher earnings** due to their ACC education.
- Students see their annual income increase by $111 per year for every credit completed at ACC.

ACC generates a return on government investment

- State and local government allocated around **$7.8 million in support of ACC** in fiscal year 2005.
- For every dollar appropriated by state and local government, taxpayers will see a **cumulative return of $1.90** over the course of the students' working career (in the form of higher tax receipts and avoided social costs).
- State and local government will see a **rate of return of 8%** on their support for ACC, which compares very favorably with private sector rates of return on similar long-term investments.

ACC increases students' earning potential

- A total of **3,479 credit and non-credit students** attended the college in academic year 2004-2005. As many as **75% of these students stay in the region** initially after they leave the college and contribute to the local economy.
- Studies demonstrate that education increases lifetime earnings. **The average annual earnings of a student with a one-year certificate are $25,963**, or 84% more than someone without a high school diploma or GED, and 16% more than a student with a high school diploma. **The average earnings of a student with an Associate Degree are $30,586**, or 117% more than someone without a high school diploma or GED, and 37% more than a student with a high school diploma or GED.
- ACC students will see their annual income increase, on average, by about **$111 per year for every credit completed** at ACC during the analysis year.
- Throughout his or her working career, the average ACC student's discounted lifetime earnings (i.e., future values expressed in present value terms) will increase **$5.20 for every education dollar invested** (in the form of tuition, fees, books, and foregone earnings from employment).

- Students enjoy an attractive **16% annual rate of return** on their ACC educational investment, and recover all costs (including wages foregone while attending) in **9 years**.

VII. Attachment B

FISCAL YEAR 2024
PRIORITY CAPITAL OUTLAY PROJECT REQUEST

Institution Name: Alpena Community College

Project Title: Charles R. Donnelly Life Sciences and STEM Innovation Project

Project Focus: _X_ Academic ____ Research ____ Administrative/Support

Type of Project: _X_ Renovation ____ Addition _ New Construction

Program Focus of Occupants: Science classrooms,

Approximate Square Footage: 39,520 square feet repurposing existing space

Total Estimated Cost: $8.5 million

Mechanical/Heating system replacement	$2,080,000
Roof	$290,000
Elevator	$200,000
Classroom/Lab technology	$1,000,000
Exterior improvements	$2,760,000
Interior renovations	$1,360,000
Professional fees/contingencies	$810,000
Total	$8,500,000

Estimated Start/Completion Dates: October of 2025/August of 2027

Is the Five-Year Plan posted on the institution's public internet site? _X_ Yes ____ No

Is the requested project the top priority in the Five-Year Capital Outlay Plan? _X_ Yes ____ No

Is the requested project focused on a single, stand-alone facility? _X_ Yes ____ No (part of an existing building)

Describe the project purpose.

Occupying 39,520 square feet, the Charles Donnelly Natural Resources Center (NRC) is a four-story contemporary block building that has served as the focal point for science education in Northeast Michigan for nearly 50 years. Built in 1972, it is the third oldest building on the main campus of Alpena Community College and maintains a central piece of ACC's legacy, providing six natural science classrooms and laboratories on the first floor used for chemistry, biology, microbiology, and botany. Also on the first floor are a vending area, 130-seat lecture hall, and faculty offices. The second floor has general purpose classrooms, a conference room, and faculty offices. The third floor contains faculty offices and the fourth floor is the College Board room.

The Charles R. Donnelly Life Sciences and STEM Innovation Project proposes to repurpose NRC to: (1) upgrade outdated first floor Lecture Hall with modern videoconferencing technology to enhance distance and remote instruction; (2) develop a Life Sciences and Information Technology Innovation Center on the second floor, including technology to bring in external lecturers and create a student collaboration center; (3) update interior and exterior renovations, particularly at building entrances and 4th floor concrete facades; (4) replace HVAC and windows throughout the building to mitigate COVID hazard to students, staff, and the community; (5) replace roof over the entire building; and (6) develop and/or modify Life Sciences and related STEM certificate and associate degree programs to allow NRC to continue to be a hub for science education, STEM talent development, and regional prosperity in NE Michigan for decades to come. An estimated 30 jobs will be created or retained by the project.

Describe the scope of the project.

The following general infrastructure upgrades will be required at an estimated cost of $8.5 million:

- Replace existing heating system with high-efficiency HVAC system (geo-thermal, forced air, or hot water)
- Upgrade first floor lecture hall with videoconferencing technology, new seats with charging stations, and ADA-compliant support services.
- Renovate second floor classrooms to create a Life Sciences and STEM Innovation Center.
- Replace original elevator serving all four floors.
- Redesign main entrance and outdoor courtyard to support student collaboration spaces.
- Renovate restrooms throughout the building.
- Install smart rooms and enhanced videoconferencing technology throughout the building.
- Upgrade first floor lecture hall, fourth floor Board room, and second story classrooms with interior and exterior enhancements.
- Replace windows with high efficiency upgrades.
- Update furniture, fixtures, flooring, and signage.
- Install a new roof over the entire building.

Please provide detailed, yet appropriately concise responses to the following questions that will enhance our understanding of the requested project:

1. How does the project enhance Michigan's job creation, talent enhancement and economic growth initiatives on a local, regional and/or statewide basis?

Prosperity Region 3 real-time labor demand from September 2020 notes that the highest paying occupations in Region 3 are also the ones that require the most education and training. The highest paying job titles are concentrated in the Healthcare practitioner and technical occupations and in Management occupations. The Charles R. Donnelly Life

Sciences and STEM Innovation Center directly targets job creation and talent enhancement in this growth area.

2. How does the project enhance the core academic and/or research mission of the institution?

The project enhances the core academic mission of the institution in the following ways:

- Supports student success in transfer, occupational, dual enrollment, and Early Middle College pathways.
- Enhances opportunities for Reconnect students.
- Promotes retention and institutional DEIB initiatives.
- Connects STEM programs and innovation to local employment and economic development.
- Improves employment opportunities for organized labor.

The mission of Alpena Community College is to create a culture of educational excellence and service to the community.

The College goals are:

1. Campus/Culture: Offer a welcoming, safe, and adaptable culture that inspires diversity.

2. Learning/Education: Motivate continuous exploration of diverse opportunities and knowledge acquisition through a flexible learning environment.

3. Community: Stimulate community collaboration, which fosters comprehensive economic, cultural, and community development.

4. Value: Exercise sustainable value that supports career pathways and fiscal responsibility.

The Charles R. Donnelly Life Sciences and STEM Innovation Center aligns with the College mission and goals. The project enhances the core teaching and learning mission of Alpena Community College.

3. How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The project supports adaptive re-purposing of existing facilities and infrastructure by investing in a legacy building on the campus of ACC launching it into the 21st century as a regional leader in Life Sciences and STEM Innovation. Enhancing technology while preserving a historic building without adding new infrastructure on campus in a climate of demographic and enrollment challenges makes sense for ACC and the communities it serves. The potential rewards — higher return on investment, sustainable building, saving historic resources — make adaptive reuse a sensible development opportunity.

4. Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.

The project mitigates five current health and safety deficiencies in the Charles R. Donnelly Natural Resources Center:

1) Total replacement of the HVAC system will provide years of additional life to the building and safety to students and staff who work in the facility, plus contribute to COVID-19 mitigation strategies by improving air circulation and overall building ventilation.

2) Replacing the windows will enhance building efficiency thereby reducing energy costs substantially and contribute to ACC's institutional COVID-19 safety response.

3) Replacing the original elevator will support safety among all students, staff, and community stakeholders.

4) Remodeling bathrooms to provide modern ADA specifications will support easier access to students with disabilities.

5) Upgrading exterior entrances and balcony facades will enhance the visual appeal of the building and its functional safety.

5. How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

According to 2014 Michigan Community Colleges Activities Classification Structure data (Table 37), ACC is the second most efficient community college in the state in terms of cost per square foot. At $3.10 per square foot, ACC is 48 percent below the community college state aggregate of $5.97 cost per square foot.

The Charles R. Donnelly Life Sciences and STEM Innovation Center will improve utilization of existing space by focusing resources on repurposing existing infrastructure to accommodate programs producing high-wage, high-demand jobs in which there are current and future projected labor market shortages.

6. How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

The institution intends to integrate sustainable design principles in the following three ways:

1) Replacing an aging and inefficient boiler system with a modern energy efficient heating and climate control HVAC system.

2) Installing energy efficient windows throughout the building.

3) Updating lights, water, plumbing, bathroom fixtures, drinking fountains, and electrical switches.

7. Are match resources currently available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources?

The following match resources are currently in place or may be accessed with reasonable certainty:

College support:	$1,000,000
Federal Support:	$2,000,000
ACC Foundation support:	$1,250,000
Total:	$4,250,000

8. If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost for community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

The College does not anticipate contributing additional resources that reduce the state share from the amounts referenced above.

9. Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

It is not anticipated that the project will increase operating costs to the institution. On the contrary, a decrease in operating costs to the College is anticipated based on three main factors: (1) increased energy efficiency will lower operating costs; (2) reconfiguring existing classroom and laboratory space should allow for an expanded programming with no additional instructional costs; and (3) enhanced opportunities to provide distance learning or remote STEM instruction across NE Michigan should enhance revenue with no additional cost.

10. What impact, if any, will the project have on tuition costs?

No increase of tuition or fees is anticipated at this time based upon this project. Repurposing the Natural Resources Center should contribute to the College's persistent efforts to restrain costs and thereby minimize passing along tuition increases to students.

11. If this project is not authorized, what are the impacts to the institution and its students?

If the project is not authorized, the following impacts to the institution and its students are projected: (1) Life Sciences and STEM programs essential to the prosperity of NE

Michigan will fall further behind the technology innovation curve; (2) local students attending ACC for these occupations will become increasingly underprepared compared to peer graduates from more technologically-enhanced regions; (3) students will be incentivized to leave the region to pursue higher educational institutions where opportunity is more abundant, significantly challenging the regional goal of locally-driven prosperity; and (4) ACC's role as the premier provider of post-secondary education in its NE Michigan service district will be compromised.

12. What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

A 2014 Facilities assessment conducted by SHW Group estimated Current Replacement Value of the Charles R. Donnelly Natural Resources Center building at $9,642,880. This does not include the cost of demolishing the building, removing it, and repairing the site, estimated to cost an additional $1 million. Based on this assessment, three alternatives were considered. One, tear down the building and build a brand new structure. Two, tear down the Natural Resources Center and attempt to squeeze classroom and laboratory space into existing buildings on campus. Three, seek Capital Outlay funding to repurpose the building and upgrade it to current and future educational and training needs.

Based on the SHW assessment, repurposing the Charles R. Donnelly Natural Resources Center is considered preferable to these alternatives based on the following factors:

1) Currently there is not existing space suitable for these functions elsewhere on campus.

2) While the cost of repurposing existing buildings tend to be at a premium compared to new construction, replacing nearly 40,000 square feet of classroom and laboratory space with an equivalent amount of new construction was deemed to be cost-prohibitive.

3) The 2nd floor classroom and laboratory space vacated by the move of ACC's nursing programs across campus, a key piece of ACC's successful FY18 $8.7 million Capital Outlay plan, offers prime instructional space for the College's expanding Life Sciences and STEM programming.

4) ACC's most recent FY18 $8.7 million Capital Outlay project renovating Van Lare Hall to house ACC's nursing programs proved the concept that repurposing legacy buildings works and offers the best solutions in regions where enrollment demographics remain challenging. Enrollment in the Nursing program has increased from 54 to 132 in the four years since the project was completed.