Proposed

FY23 Capital Budget and 10-Year Capital Improvement Plan

Board of Regents
November 11-12, 2021

Prepared by: University of Alaska System
Office of Strategy, Planning, and Budget
907.450.8426
http://www.alaska.edu/swbudget/
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Presented within are the proposed FY23 Capital Budget Request and the 10-Year Capital Improvement Plan. The goal of the Board of Regents’ University of Alaska FY23-FY32 Capital Improvement Plan (CIP) is to guide decision making that ensures the necessary facilities, equipment and infrastructure are in place to:

- achieve the board’s short-, mid-, and long-term goals
- support the academic and research directions of the university system
- support a continuous improvement philosophy
- bring awareness to the associated future annual operating costs that may be incurred

The capital budget presents the top priority projects for FY23 and the short-, mid-, and long-term capital investment priorities consistent with university campus master plans. Priority new construction projects, that have already received some approval, are included in the 10-year capital improvement plan for consideration in future capital budget requests.

The State of Alaska received discretionary funds from the American Recovery Plan Act of 2021 (ARPA) – Coronavirus State and Local Fiscal Recovery Funds (CSLFRF). UA has identified and put forward to the Governor’s Office several projects for consideration.

The proposed FY23 Capital Budget includes:

- $50.0 million (state or ARPA funds) for Deferred Maintenance (DM)/ Renewal and Repurposing (R&R)
- $20.0 million (state or ARPA funds) for Student IT Systems Modernization and Security Upgrades
- $31.5 million (ARPA funds) for Economic Development: Research and Workforce training Projects
- $84.0 million (federal funds) for the UAF Seward Marine Center Research Vessel Infrastructure

ARPA funding requests will be refined to reflect state needs.
### Facilities Deferred Maintenance (DM) / Renewal & Repurposing (R&R)¹

<table>
<thead>
<tr>
<th>Category</th>
<th>Unrestricted</th>
<th>Designated, Federal and Other Funds</th>
<th>Total Funds</th>
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<td>Fairbanks Campus Bartlett Hall Plumbing Replacement, Campus-Wide Sanitary &amp; Storm Sewer Utilities Upgrade, &amp; University Park Restroom Renovation</td>
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<tr>
<td>Fire rated corridor egress &amp; alarms, electrical distribution, fuel tank repair/replace across multiple campuses.</td>
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<td>UAS Main &amp; Community Campuses</td>
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<td>Ketchikan Paul Building Roof Deck Mansards Replacement, Juneau Safety Improvements, Fuel Tank Replacement, Drainage Improvements, and Elevator and HVAC Replacement</td>
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<td>UA System Office</td>
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<td>Replace Emergency Egress Lighting Power Supply (Butrovich)</td>
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### UA Board of Regents' Budget

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**FY23 Capital Budget Total**

| Total Funds | 70,000.0 | 115,490.0 | 185,490.0 |

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¹ UA requests $50 million in FY23 for deferred maintenance/renewal & repurposing as follows:

- **UAA Main Campus**

- **UAA Community Campuses**
  - HVAC Healthy Building Upgrades

- **UAF Main Campus and Community & Technical College (CTC)**
  - Fairbanks Campus Bartlett Hall Plumbing Replacement, Campus-Wide Sanitary & Storm Sewer Utilities Upgrade, & University Park Restroom Renovation

- **UAF Community Campuses**
  - Fire rated corridor egress & alarms, electrical distribution, fuel tank repair/replace across multiple campuses.

- **UAS Main & Community Campuses**
  - Ketchikan Paul Building Roof Deck Mansards Replacement, Juneau Safety Improvements, Fuel Tank Replacement, Drainage Improvements, and Elevator and HVAC Replacement

- **UA System Office**
  - Replace Emergency Egress Lighting Power Supply (Butrovich)
### Deferred Maintenance (DM)/Renewal & Replacement (R&R)

<table>
<thead>
<tr>
<th>Project Description</th>
<th>FY23</th>
<th>FY24-FY25</th>
<th>FY26-FY27</th>
<th>FY28-FY32</th>
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### Major Maintenance & Renewal Projects

**UAA Main Campus**

- UAA Social Sciences Building Space Optimization: 7,632.0 / 1,908.0
- UAA College of Business and Public Policy Space Optimization: 6,384.0 / 1,596.0
- Welcome Center and Student Services P3: 5,000.0
- Exterior Safe Access and Circulation Improvements: 500.0 / 1,000.0 / 500.0
- Health Lab and Workforce Demand Renovation and P3: 2,830.0 / 770.0
- Sports Complex Capacity Improvements: 3,000.0 / 11,000.0

**UAF Campuses**

- Rasmuson Library Student and Academic Success Center: 5,575.0
- University Park Childcare and Early Childhood Development Center: 5,850.0
- UAF STEM Lab Renewal for Alaska Industry Initiatives: 5,500.0
- Critical and Strategic Minerals/Heavy Oil Extraction
- Lola Tilly Repurpose for Student Engagement: 3,500.0
- Fine Arts: Theater Wing Major Renewal: 30,000.0
- Elvey Building Renewal and Repurpose: 80,000.0
- Arctic Health Research Center DM&R and Repurpose: 64,000.0
- O'Neill Building Renewal and Repurpose: 40,000.0

**UAS Campuses**

- Natural Science Lab Consolidation: 950.0
- Welding Lab Replacement - Juneau: 4,500.0

**Egan Library / Cyril George Indigenous Knowledge Center (CGiKC)** ($2.5M Non-state)

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¹ The State of Alaska received discretionary funds from the American Recovery Plan Act of 2021 (ARPA) – Coronavirus State and Local Fiscal Recovery Funds (CSLFRF). These projects have been put forward to the Governor’s Office for consideration.
<table>
<thead>
<tr>
<th>University of Alaska 10-Year Capital Improvement Plan (in thousands of $)</th>
<th>FY23</th>
<th>State Appropriations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted General Fund (UGF)</td>
<td>Designated, Federal, and Other Funds</td>
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<tr>
<td><strong>New Construction</strong></td>
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<tr>
<td><strong>Academic Facilities</strong></td>
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<tr>
<td>Fire and Emergency Services Training and Education Facility</td>
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<tr>
<td>Agricultural and Forestry Station Outreach Laboratory</td>
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<tr>
<td>Troth Yeddha’/Indigenous Studies Center: Park &amp; Building</td>
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<tr>
<td>($35.0M Non-state/$5.0M Private)</td>
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<tr>
<td>UAF Community Campus</td>
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<tr>
<td>Community &amp; Technical College (CTC) Aviation/Hangar Addition</td>
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<tr>
<td>Kuskokwim Campus Yup’ik Cultural Learning Center Expansion</td>
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<tr>
<td><strong>Research Facilities</strong></td>
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<tr>
<td>UAF Main Campus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science, Teaching &amp; Research Building</td>
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<tr>
<td>Toolik Research Field Station: Classroom ($3.0M Non-state)</td>
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<tr>
<td><strong>Student Life (Housing), Support, and Other Facilities</strong></td>
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<tr>
<td>UAF Main Campus</td>
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<td></td>
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<tr>
<td>Student Success: Housing Revitalization</td>
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<tr>
<td>Student Success: Core Campus Parking Garage (possible P3)</td>
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<tr>
<td>Student Success: Patty Ice Rink Reconfiguration</td>
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<tr>
<td>Student Success: Student Recreation Center Expansion</td>
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<tr>
<td><strong>Infrastructure</strong></td>
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<tr>
<td>UAF Main Campus</td>
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<td>Seward Marine Center Research Vessel Infrastructure</td>
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<tr>
<td>UAS Main Campus</td>
<td></td>
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<tr>
<td>Strengthen Campus Security</td>
<td></td>
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<tr>
<td>- Juneau, Sitka, Ketchikan</td>
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<tr>
<td><strong>Research for Alaska</strong></td>
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<tr>
<td>UAA Main Campus</td>
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<tr>
<td>ConocoPhillips Integrated Sciences Building (CPISB) Combined Heat and Power (CHP) Energy Savings Project</td>
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<tr>
<td>UAF Main Campus</td>
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<tr>
<td>Poker Flat Research Range (PFRR) Oil Spill Research Test Basin</td>
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<tr>
<td>(Potential $1.0M Non-state)</td>
<td></td>
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# University of Alaska 10-Year Capital Improvement Plan (in thousands of $)

<table>
<thead>
<tr>
<th>FY23 State Appropriations</th>
<th>Unrestricted General Fund (UGF)</th>
<th>Designated, Federal, and Other Funds</th>
<th>Total Funds</th>
<th>Short-Term FY24-FY25</th>
<th>Mid-Term FY26-FY27</th>
<th>Long-Term FY28-FY32</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY23 Total</td>
<td>70,000.0</td>
<td>115,490.0</td>
<td>185,490.0</td>
<td>450,971.0</td>
<td>388,224.0</td>
<td>167,500.0</td>
</tr>
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</table>

## University of Alaska

### Main Campus

- **UAA Main Campus**
  - Classroom Technology Enhancements: $4,000.0
  - ADA Accessibility & Instructional Classroom Technology: $5,000.0

- **UAF Main Campus**
  - Inclusive Technology Infrastructure: e-Campus Recording Capabilities: $4,000.0

- **UAS Main Campus**
  - Smart Classrooms Juneau Campus: $100.0

### Projects

- **Alaska Roadmap for Nuclear Reactor Applications** (Potential $1.9M Non-state): $1,000.0
Facilities Deferred Maintenance (DM)/Renewal & Repurposing (R&R)

FY23 (GF: $50,000.0, NGF: $0.0, Total: $50,000.0)

The University of Alaska (UA) is Alaska’s system for higher education and a world leader in arctic and climate change research. UA is responsible for maintaining facilities and infrastructure across the state, with nearly 400 facilities totaling 8.3 million gross square feet, an average age of 35 years, an inflation-adjusted value of $4.9 billion, and a deferred maintenance/renewal & repurposing (DM/R&R) backlog of almost $1.4 billion.

Due to many years of unfunded deferral of critical capital projects, there is an increasing risk and evidence of building closures. There have been numerous unplanned closures causing significant hardship on student learning and research activities, as well as the associated lost productivity of university students, faculty/researchers, and staff.

UAA’s priority projects include work across campus in the Professional Studies Building, Wendy Williams Auditorium, Social Sciences Building, Consortium Library, and Arcade & Bridge Lounge (Spine Connecting East & West Campus) to address student safety, maintain a quality educational environment, increase energy efficiency and minimize disruptions to students and staff.

UAF’s top shovel ready projects are the Fairbanks Campus Bartlett Hall Plumbing Replacement and Campus-Wide Sanitary & Storm Sewer Utilities Upgrade. These projects will correct major code citations, provide ADA compliant facilities, improve quality of life, reduce energy usage, and remove potential hazards.

UAS’s Paul Building Deck Mansards Replacement and Housing Lodge Fuel Tank Replacement are their top shovel ready projects. These will prevent further cost by repairing a roof which is not suitable to the local environment and replacing a single walled fuel tank in order to eliminate the associated environmental liability.

Student IT Systems – Modernization and Security Upgrades

FY23 (GF: $20,000.0, NGF: $0.0, Total: $20,000.0)

$20 million in state ARPA or capital funding is requested to modernize the university’s student-facing IT systems including necessary security upgrades and cloud migration. Enrollment is key to serving Alaska and also is the key to UA’s future budget stability. UA’s student information technology system needs to be modernized to compete well in the post-COVID environment. The pandemic has shown the critical need to have a reliable, robust system.

Implemented 30 years ago, UA’s student-facing IT systems are out of date and compare poorly against peers in terms of delivering a quality student experience. UA must improve these capabilities to remain competitive in the marketplace and offer a more user-friendly entry point for the student. This major system upgrade would facilitate student recruitment, retention, and success for our three universities.

Economic Development: Research and Workforce Training Projects

FY23 (GF: $0.0, NGF: $31,490.0, Total: $31,490.0)

The UA system will be applying for American Recue Plan Act (ARPA) funds in identified areas where we can bring national prominence to Alaska and/or have a significant positive impact on the state’s economic recovery through research and workforce training. Projects are related to:

- Critical Minerals and Rare Earths Elements ($7.8 million)
- Oil and Gas Recovery ($5.0 million)
- Unmanned Aerial and Underwater Vehicles ($6.1 million)
- Mariculture, North Pacific Fisheries, Arctic and Pacific North Ocean Sciences ($7.0 million)
- Health ($3.5 million)
- Alternate Energy ($2.1 million)
UAF Seward Marine Center Research Vessel Infrastructure
FY23 (GF: $0.0, NGF: $84,000.0, Total: $84,000.0)

The UAF Seward Marine Center is located at the head of Resurrection Bay, one of the primary docking facilities for visiting research vessels and home-port of the NSF-owned and UAF-operated Global Class R/V Sikuliaq, the only ice-capable research vessel in the University-National Oceanographic Laboratory System (UNOLS). Construction and renovation of modern forward-looking sea and shore-side infrastructure is needed to support future Arctic Ocean observing, prediction and scientific breakthroughs. This project will provide construction of a new dock for year-round servicing/berthing of the R/V Sikuliaq, along with new warehouse and shop facilities constructed to directly support efficient and effective high-latitude maintenance, operations and research.
## FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R)

*(in thousands of $)*

<table>
<thead>
<tr>
<th>MAU</th>
<th>Project Name</th>
<th>Type</th>
<th>FY23 Amount</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>UAF Fairbanks Campus Building Interior &amp; Systems Renewal (Bartlett/Moore student housing)</td>
<td>Main</td>
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<tr>
<td>2</td>
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<td>Main</td>
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<tr>
<td>3</td>
<td>UAS Building Envelope &amp; Roof Systems (Deck Mansards Replacement Paul Building)</td>
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<td>4</td>
<td>UAA Campus Building Envelope &amp; Roof Systems Renewal (Consortium Library and Arcade &amp; Bridge Lounge)</td>
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<td>UAF Campus Infrastructure &amp; Exterior Renewal (sanitary sewer lines)</td>
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<td>6</td>
<td>UAA Campus Security and Safety (replace exterior/interior doors)</td>
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<tr>
<td>7</td>
<td>UAF Safety and Regulatory Compliance (renew HVAC and hydronic system, pool refurbishment, fire alarms, door replacement)</td>
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<td>8</td>
<td>UAS Safety Improvements &amp; Regulatory Compliance (fix or replace retractable bollards, emergency exit canopies and notification improvements)</td>
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<td></td>
<td>UAS Safety Improvements &amp; Regulatory Compliance (fix or replace retractable bollards, emergency exit canopies and notification improvements)</td>
<td>Comm.</td>
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<td>9</td>
<td>UAA Community Campus HVAC Healthy Building Upgrades</td>
<td>Comm.</td>
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<td>10</td>
<td>UAF Rural and Community Campus Renewal (fire rated corridor egress &amp; alarms, electrical distribution, fuel tank repair/replace)</td>
<td>Comm.</td>
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<td>11</td>
<td>UAS Exterior Infrastructure (fuel tank replacement, covered stairways, sidewalk repairs &amp; drainage improvements)</td>
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<td>12</td>
<td>UAS Interior Systems (elevator and HVAC replacement)</td>
<td>Comm.</td>
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<td>13</td>
<td>UAF Community and Technical College (CTC) Renewal (renovate restrooms)</td>
<td>Main</td>
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<td>14</td>
<td>UASO Replace Emergency Egress Lighting Power Supply (Butrovich)</td>
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<td></td>
<td>Total</td>
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<tr>
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<th>FY23 Priority</th>
<th>DM/R&amp;R Backlog</th>
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<tr>
<td>Main</td>
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<td>15,600.0</td>
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<tr>
<td>Main</td>
<td>200.0</td>
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**Total**: **50,000.0**
UAF Fairbanks Campus Building Interior & Systems Renewal (Bartlett/Moore student housing)

(FG: $20,500.0, NGF: $0.0, Total: $20,500.0)

Many of the buildings at UAF were constructed in the 1960s and 1970s and the original building interiors and systems are in very poor to failing condition, no longer adequate for current enrollment demands, and require replacement or upgrading. The systems including finishes, plumbing, ventilation, heating, lighting, and electrical, are expensive to operate due to their low efficiencies and lack of replacement parts, and are no longer in compliance with current life safety codes. Failing systems are causing partial building closures across campus, increasing operating cost for temporary space, or in some cases displacing students to off-campus housing. In some cases, these deteriorating systems have caused class and research cancellation and eroded UAF’s ability to obtain new grants and initiatives.

Replacement of these systems will allow for increased energy efficiencies and better environmental control throughout UAF’s facilities. Projects in this category lower operational cost by upgrading or replacing old building systems with current up-to-date technology where there is greater payback. The work will also renew aging, highly-used components including sanitation improvements, securing aging interior classrooms and labs and addressing building code/life safety issues. It will reduce the backlog of deferred renewal and increase the useful life of these facilities. Besides improving building functionality, renewed finishes, doors, restrooms, and classrooms create a better impression for current and future students and the public. Modern, attractive facilities have a direct correlation to student enrollment and success.

The building interior and systems renewal projects address building finishes, plumbing, electrical and heating/ventilation systems to increase efficiency, reduce maintenance costs, and improve the living environment of highly used buildings. The projects also reduce building code deficiencies, a growing deferred renewal backlog, and address life safety items related to building interior finishes such as doors, hardware, flooring, and ceilings. Due to the age of UAF buildings, most projects have asbestos removal aspects and require upgrades to current codes and standards. The work performed within these projects preserves current facilities, extends the life of systems and reduces risk of failure that would impact program delivery.

- **Bartlett Hall and Moore Hall Modernization and Renewal:** Bartlett and Moore Hall are UAF’s largest residence halls, housing 644 undergraduate and graduate students throughout the academic year. Built in the mid-1960’s, the original sanitary plumbing infrastructure is corroded to the point of failure throughout both buildings, causing multiple partial building closures over the previous four years. Additionally, both facilities are showing their age and do not meet the modern student’s expectations for campus housing. Architectural finishes are dated, damaged and severely worn. Aging light fixtures are energy inefficient. The existing laundry located in the basement of Bartlett Hall poses safety concerns due to a significant egress code violation. This project will modernize both residence halls’ restrooms, laundry facilities and associated sanitation infrastructure by replacing the plumbing systems and reconfiguring the restrooms to comply with current building codes, ADA standards and modern student resident expectations. Lighting and architectural finishes will be modernized to enhance the student experience. The Bartlett Hall laundry will be relocated to the ground floor to resolve code issues.

- **Bunnell Elevator Modernization:** The existing elevator is original to the building with minor updates in the early 1990’s to the hydraulic pump. The State Elevator Inspector has cited several deficiencies with the elevator and recently the elevator has developed an electrical controls issues that causes it to stop between floors. UAF’s elevator maintenance contractor has made repairs to keep the lift code compliant and operable. Despite their efforts, the unit is at the end of its useful life and is the most pressing elevator replacement project on campus. The project will replace the entire unit with a modern elevator within the same structural shaft.

- **Campus Wide Restroom Renovations:** Renovate outdated restrooms campus wide to include new fixtures, finishes, partitions, lighting, etc. The work will include major plumbing code corrections, ADA compliance, and asbestos abatement. The goal is to improve sanitation and modernize the campus experience while addressing deferred maintenance and end-of-life systems that are a strain on the maintenance staff. The goal is to renovate a minimum of two to three restroom suites per year within buildings that are over 40 years old, many of which have restrooms original to the facility. For FY23, one to two restrooms within each Duckering, Elvey, and Bunnell.
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

**UAA Campus Building Interior & Systems Renewal (Professional Studies Building, Wendy Williams Auditorium, Social Sciences Building)**

(GF: $11,171.0, NGF: $0.0, Total: $11,171.0)

Many of the original buildings on the UAA campus were constructed in the early- to mid-1970s and the building systems are beginning to fail and are no longer adequate for the current demands and require replacement or upgrading. The mechanical, electrical and Heating Ventilation and Air Conditioning (HVAC) systems in particular fall into this category. Replacement parts for many of these systems are no longer available. The older systems are very expensive to operate due to their low efficiencies. Replacement of these systems would allow for increased energy efficiencies and better environmental control throughout the building. This project will replace failing piping, inadequate electrical systems, inefficient lighting, boilers, fans, deficient variable air volume (vav) boxes and upgrade the building automation system controls.

This energy savings performance project will incorporate mechanical and electrical system improvements to three critical facilities, the Professional Studies Building (PSB), the Wendy Williamson Auditorium (WWA), and the Social Sciences Building (SSB). PSB and WWA are connected facilities and they share some of the infrastructure scheduled for replacement as part of this project. All three facilities were constructed in the early 1970s and the infrastructure, for the most part, is original and requires replacement. The electrical and mechanical systems are antiquated and are beyond their useful life.

- **Professional Studies Building** (PSB) scope will include LED lighting upgrades, electrical safety upgrades, boiler replacement, replacement of the existing air handling unit fan with a fan wall system, and convert outdated pneumatic controls to direct digital controls (DDC).
- **Wendy Williamson Auditorium** (WWA) scope will include LED Lighting upgrades, electrical safety upgrades, conversion of pneumatic controls to DDC, and hot water pump replacements.
- **Social Sciences Building** (SSB). scope will include LED lighting conversion, electrical safety upgrades, the addition of hydronic heating to the 2nd & 3rd floors of the building, conversion of pneumatic controls to DDC, and fin tube repairs.

**UAS Building Envelope & Roof Systems (Deck Mansards Replacement Paul Building)**

(GF: $100.0, NGF: $0.0, Total: $100.0)

Building Envelope and Roof Systems provides our Students, Staff, Faculty and building systems the protection from wind, rain, snow and cold. When a building envelope fails, everything inside the building is at risk of damage, decay and can make the building unsafe and unusable. Building envelopes last 30-50 years depending on the construction type and require periodic cleaning, repainting, and rescaling. New roof systems last 40-60 years and besides periodic cleaning need little maintenance. Two buildings in Juneau and both buildings in Sitka and Ketchikan campus building envelopes are more than 40 years old, showing signs of compromise and need to be replaced.

- **Paul Deck Mansards Replacement** (Ketchikan): The Paul Building has a Mansard type roof system that was constructed using a cement bonded siding material. This material has proven not to be able to withstand the frequent precipitation experienced in Ketchikan Alaska and is now falling apart. This project will replace the siding/roofing material with a Bermuda metal material that is more resistant to constant rain. This project can be designed, bid and constructed in the current fiscal year.

**UAA Campus Building Envelope & Roof Systems Renewal (Consortium Library and Arcade & Bridge Lounge)**

(GF: $900.0, NGF: $0.0, Total: $900.0)

This project will address campus-wide deferred maintenance and renewal and renovation requirements for building envelope and roof systems. It will include roof repair and replacement, doors, windows, vapor barriers, siding, weatherization, insulation; and other building envelope issues.

- **Consortium Library**: This project will demolish the existing roof system, increase parapet cap height, upgrade structural components for seismic restraint, replace roof decking as required and install a new roofing system.
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

- **Arcade & Bridge Lounge Spine Connecting East & West Campus:** This project will demolish the existing roof system, increase parapet cap height, upgrade structural components for seismic restraint, replace roof decking as required and install a new roofing system.

**UAF Campus Infrastructure & Exterior Renewal (sanitary sewer lines)**
(GF: $325.0, NGF: $0.0, Total: $325.0)
Without robust and functioning infrastructure, program delivery is severely hampered and student health and welfare is adversely affected. Buildings and their occupants require basic infrastructure such as sanitary sewers, electrical power, drinking water, and connectivity via pedestrian pathways to be fully functional and serve the academic and research needs of campus. The severe Fairbanks climate and years of operation beyond the functional age of these systems have taken a toll on the campus support systems and now pose a significant hazard to the students, faculty, staff, and community. These projects will address infrastructures that are at risk of imminent failure and in urgent need of replacement in order to safely support the UAF campus.

The work will address major code deficiencies and reduce maintenance callouts for these existing aging systems. The improvements also include repairs to pedestrian access paths by targeted replacement of failing lighting fixtures, walkways, ADA ramps, and stairs.

- **MBS Exterior Lighting:** The Moore-Bartlett-Skarland Residence Hall complex is the largest housing complex on the Fairbanks campus, supporting undergraduate through doctoral candidate students throughout the academic year. Student access to the facility is hampered by low-light levels and students frequently express concern for safety and security around the buildings. The project will replace inadequate exterior lighting with new, energy efficient LED fixtures on all four sides of the building.

**UAA Campus Security & Safety (replace exterior/interior doors)**
(GF: $429.0, NGF: $0.0, Total: $429.0)
Situated in the UMED district in the largest city in Alaska, safety and security is a university top priority. Security enhancements improved by this project will allow UAA to keep current in compliance with Clery Act and will promote a safe campus, minimizing risk for the students and campus community. Security enhancements include expansion of recently upgraded access control system, key control management system, emergency communication platform upgrades, and wayfinding.

**UAF Safety & Regulatory Compliance (renew HVAC and hydronic system, pool refurbishment, fire alarms, door replacement)**
(GF: $7,775.0, NGF: $0.0, Total: $7,775.0)
Providing a safe and compliant campus for everyone is the top priority at UAF. UAF works hard to maintain a healthy campus, reduce risk to building occupants, and ensure students have the safest experience possible, yet the aging campus is requiring larger upgrades to reduce risk and prevent injury. There are many facilities constructed prior to code adoption in the State of Alaska that do not meet current requirements for ventilation, disease mitigation, emergency egress, ADA/Title IX, and fire protection. Remaining in compliance requires an on-going effort to modify and upgrade every component of campus from exterior hardscapes, elevators, building passageways, and restrooms to fire alarms, locker rooms, signage and security infrastructure.

Safety and regulatory compliance projects provide updates to building features meant to protect the occupants and reduce risk to our students, staff, and faculty. Work includes updating ventilation to ensure sufficient fresh air is supplied to occupied rooms, replacing fire alarm systems, correcting emergency egress paths, and abating asbestos-containing material.

- **Fairbanks Campus Doors, Hardware, and Security Renewal:** The Fairbanks Campus has over 9,000 doors secured with a keying system that is 20-years beyond its patented expiration date. The antiquated keying system severely compromises building security and leaves facilities vulnerable to break-ins, property theft, and vandalism. Nearly half of the campus doors have outdated and broken hardware, and oftentimes the door is also in
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

need of replacement. Many of the exterior and emergency exit doors do not meet current fire codes or ADA regulations. Over a period of three years, UAF developed a multi-phased plan to complete a door hardware inventory, design and purchase a new keying system, establish a robust key issue policy, and begin replacing interior doors and door hardware. Electronic locks will be installed on exterior doors to allow for fast lock-down of a building whether at the end of the normal business day or during a violent intruder event. In the next phase, interior work will focus on implementation of the keying system across all campus facilities as well as replacement of fire exit doors in Duckering, Gruening, and Bunnell. The next phase of renewal will replace interior and exterior doors and/or hardware at Gruening, Elvey Building, O’Neill Building, University Park Building, and Health, Safety, and Security Building.

• **Campus Wide Fire Alarm Replacement for End of Life:** Approx. 23 fire alarm panels on the Fairbanks Campus have reached their end of life and the manufacturer is no longer supporting them. Panel failures are causing buildings to be closed or post a fire watch. In the last year four panels failed and parts could not be located for several months. A comprehensive plan has been created to replace panels in small buildings, reserving those parts for older, larger buildings that have a higher cost to update. In FY20, funding completed replacement in Chapman, Brooks, Bunnell, Constitution, and West Ridge Research Building (WRRB). FY22 funding will replace the Duckering system in the summer of 2022. The next facility to replace is Gruening. Future phases will include Signers Hall, Rasmuson, and the Patty Center.

• **Patty Pool Code Compliance:** The Patty Pool is one of four public pools in the borough and is host to multiple community, high school, and collegiate events, recreational activities, and classes. The pool natatorium requires a better ventilation system to meet building codes, provide proper environmental conditions, and meet current CDC guidelines for fresh air supply during pandemics. Code corrections and renewal work in a first phase will replace the pool deck ventilation system and bring it up to current required number of air exchanges, install a second means of egress from the pool deck and replace interior vapor barrier and insulation on the exterior envelope. A future phase will be developed to complete the finishes, plumbing and structural repairs. Design in progress.

• **Salisbury Code Corrections:** Salisbury is one of two large theaters in the Interior of Alaska capable of hosting dramatic theater productions. During a recent fire inspection multiple deficiencies were noted and the facility was closed by the local fire marshal. The majority of the deficiencies were corrected during the summer of 2021 however, larger items that require substantial construction and time to repair prior to re-opening to the public will require a significant capital investment. The basic code corrections work includes replacement or repair to fire walls, replacement of theater curtains, replacement of a smoke ventilator, and refurbishment of the trap floor. A future larger R&R project will be required to address seismic, ADA, and programmatic updates.

• **Lab Ventilation Air Controller Replacement:** Lab ventilation is required to maintain a specific amount of air exchange to protect lab users from hazardous atmospheres in these labs. Many of the lab controllers have reached the end of their useful life and are no longer supported by the manufacturer. UAF maintenance staff have been able to repair the controllers to allow continued occupancy of the rooms but parts availability has begun to hamper this work. The project will retrofit the existing mechanical equipment with modern electronics, a low-cost way to maintain code compliant ventilation in the space. FY23 funding will be directed at the UAF Animal Care Facility in the BIRD Building and a future phase will update Duckering and Reichardt.

• **Hess Village Family Housing ADA Compliance:** Hess village is UAF’s largest housing facility for non-traditional students, especially married students and those with a family. The facility is currently not ADA accessible which creates a disparity for families looking for housing on campus. The project will provide for ADA access from a parking area to the apartments, community center, and playground on the south end of the complex. Work will include new pathways, lighting, ramps, handrails, and access into the community center.
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

UAS Safety Improvements and Regulatory Compliance (fix or replace retractable bollards, emergency exit canopies and notification improvements)
(GF: $1,266.0, NGF: $0.0, Total: 1,266.0)

Safety of our Students, Staff, and Faculty is of great importance to UAS and we strive to keep our facilities in compliance with current building codes, health mandates and safety standards. Regulatory agencies frequently update their requirements as investigations find safer ways to build buildings and as new technologies prove themselves to increase the health and safety of building occupants. Building Owners are allowed to postpone implementing many of these regulatory changes until the next major building renovation. However, some of them are mandated to be implemented by a specified date. In addition, UAS is always looking for ways to improve campus safety regardless of regulatory mandates. Many of the fire alarm systems on campus are old and the manufacturer no longer makes replacement parts. Southeast Alaska communities are relatively safe compared to larger communities. However, theft from vehicles in parking lots, unauthorized access to campus and publicly aware community make for frequent requests for improving campus safety.

Four current priority projects in this category include:

- **TEC Welding Lab Fire Alarm Replacement**: TEC welding lab fire alarm panel is no longer supported and if an alarm component fails there will be no way to repair the fire alarm system. UAS welding classes and program will be significantly impacted if the fire alarm fails before it is replaced. This project will replace the fire alarm system. This project can be bid and constructed in this fiscal year.

- **Mourant Emergency Notification & Acoustic Improvements**: The acoustics in the Mourant Cafeteria are very bad making it difficult to hear the person talking across the table, someone making announcements at an event and it is near impossible to hear the UAS emergency notification phone intercom messages. This project will install a sound system that is connected to UAS Cisco Infomacast system that can transmit emergency messages and will provide high quality speech reinforcement for presentations and group meetings. This project can be designed, bid and constructed in the current fiscal year.

- **Juneau Campus Courtyard Safety Improvements**: Fix or Replace Retractable Bollards; UAS has retractable bollards to prevent un-authorized vehicle traffic from driving thru the campus courtyard. However, the bollards are typically not working allowing un-authorized vehicles to enter the courtyard. This detracts from the pedestrian friendly and student-centered nature of the campus courtyard. These unauthorized vehicles include Vendors, UAS staff, Faculty, facilities services and the general public. Safety is compromised by having vehicles using the same travel way as pedestrians. This project will investigate options for keeping the pedestrian friendly nature of the campus courtyard. These options may include; more dependable bollards, sliding/tilting gates, high back curbs, permanent fire barricade bollards, separate service entrances, stricter penalties for violators.

- **Building Tech Lab Exit Canopy (Sitka)**: Currently snow slides off the roof and falls in front of a building emergency exit. This presents a safety hazard to students, staff and faculty if maintenance crews are not able to remove the snow before they need to use the emergency exit. This project will construct a canopy over the exit door area that will shed the roof snow away from the exit door.

UAA Community Campus HVAC Healthy Building Upgrades
(GF: $3,100.0, NGF: $0.0, Total: $3,100.0)

Consistent with recommendations by the CDC for educations buildings, this project improves the indoor air quality by upgrading antiquated air systems with new technology that can support Merv 14 air filtration. This project focuses on high risk buildings including: large congregate venues, food consumption venues, and classroom facilities. Work will be done at the Kodiak Campus, Kenai River Campus, Kachemak Bay Campus, Mat-Su Campus, and the Prince William Sound Campus.
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

UAF Rural and Community Campus Renewal (fire rated corridor egress & alarms, electrical distribution, fuel tank repair/replace)
(GF: $2,200.0, NGF: $0.0, Total: $2,200.0)
UAF’s College of Rural and Community Development (CRCD) campus sites span Alaska with facilities in Fairbanks, Nome, Bethel, Dillingham, and Kotzebue. These sites provide valuable educational and cultural resources to their local and surrounding communities. Major renewal of the buildings has been a consistent effort over the last several years utilizing capital, operating, and grant funding. Despite these efforts, deferred renewal and code correction work is still required to maintain the critically important campuses.

The remote locations of the CRCD campuses requires UAF to prioritize regulatory compliance, distance education, energy efficiency and conservation projects. The priority projects for rural campuses are fire alarm upgrades and fuel tank compliance. Replacement of these systems supports building occupancy and program delivery continuity. Systematic, energy efficient building improvements use higher-grade, durable construction materials that reduce operational and maintenance costs. This also reduces the frequency of building system failures that are especially costly due to emergency shipping of both labor and material.

- **CRCD Fire Alarm Replacement for End of Life**: Approx. 10 fire alarm panels at the rural campus sites have reached their end of life and the manufacturer is no longer supporting them. Maintaining alarm systems in full operation is required for building occupancy and mission delivery. The next facility to replace is Margaret Wood Building in Dillingham with future phases for John Sackett Hall and the Maggie Lind Building in Bethel.

- **Kuskokwim Campus Vocational Education Center Electrical Code Compliance**: This two-story facility was constructed in phases between 1977 and 1982. The main academic building contains faculty and staff offices, classrooms, and a vocational education area. The existing main electrical distribution panel is located in the main vocational classroom area and has been cited for several code corrections. This solution includes addressing multiple other modernization needs, and is to relocate the panel to a new location and replace other features like the surge suppressor and the grounding system.

- **CRCD Campus Wide Fuel Tank Compliance**: Throughout the rural campus locations, fuel oil tanks are a necessity for heat production. Some locations have tanks that are well beyond their useful life and have multiple deficiencies. The project will fix code deficiencies associated with the fuel tanks and piping for CRCD facilities statewide.

- **Chukchi Campus Admin/Classroom Code Corrections**: During a recent maintenance code review of the campus facilities, engineers determined a portion of the building’s exit corridors are not fire rated in accordance with the building codes. Fire rated exits provide safe and quick passage out of the building in the event of a fire. The project will provide corrective action to update exit doors and corridors to a fire rated assembly and replace the fire alarm system.

UAS Exterior Infrastructure (fuel tank replacement, covered stairways, sidewalk repairs & drainage improvements)
(GF: $1,157.0, NGF: $0.0, Total: $1,157.0)
Exterior Infrastructure consists of all of UAS facilities that located outside of a building including, road, parking lots, sidewalks, landscaping and distribution systems for water, wastewater, communication and power. There are several areas on campus where the exterior infrastructure is showing signs of its age, increasing risk of failure and reducing safety of our campus community.

Four current priority projects in this category include:

- **Housing Lodge Fuel Tank Replacement**: Housing Lodge fuel tank is 35 years old, supplies the Lodge's emergency generator and has reached the end of its expected life. Facilities Services recommends replacing this tank before it starts leaking and creating an environmental liability for the University. This project will replace the existing tank
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

with a new double wall tank with interstitial monitoring system meeting current environmental codes. This project can be bid and constructed in the current fiscal year.

- **Housing Apartments Fuel Tank Replacement**: Housing Apartment Unit fuel tanks are 35 years old and reached the end of their useful life and need to be replaced before they start leaking. This project will replace the 9 existing fuel tanks with new double walled tanks with leak detection monitoring systems. Phase 1 will replace 5 tanks and Phase 2 will replace the remaining 4 tanks.

- **Campus Housing Drainage Improvements**: There are several places around the housing apartments that drainage features are inadequate resulting in water flowing across sidewalks and freezing. Grounds crew spend a lot of time shoveling and sanding the sidewalks but is often not enough to prevent students from slipping on the ice. This project will install drainage pipes, ditches French drains and other drainage features to keep the water off the sidewalks. This project can be designed, bid and constructed in the current fiscal year.

- **Covered Stairway Mourant**: The pedestrian route from the courtyard to the lower levels classrooms in Novatney & Whitehead buildings is not intuitive, which causes students and staff to take a shortcut down the steep grass slope between the Mourant and Novatney buildings. This is not a formal sidewalk or stairway and is unsafe, especially during the winter when the slope is covered in ice or snow. This project will install a covered stairway from the courtyard down to the lower sidewalk level.

**UAS Interior Systems (elevator and HVAC replacement)**

(GF: $577.0, NGF: $0.0, Total: $577.0)

Building Systems makes the interiors of our facilities a pleasant and safe place to study, work and learn. Heating systems keep the buildings warm in the winter. Ventilation systems bring fresh outside air into the building and keep air circulating thru the building to prevent the growth of mold and mildew. Lighting, communication, water and wastewater systems keep the building occupants safe and productive. Many of UAS buildings are more than 40 years old. While some of the Interior Systems have been updated, there are still many Interior Systems that have exceeded their design life and need to be replaced with new and more efficient systems.

Two current priority projects in this category include:

- **Paul Elevator Replacement (Ketchikan)**: Lighting switches in the health sciences areas of the facility have mostly failed. UAS hired an electrical design consultant to come up with a repair. The consultant recommended the complete replacement of all the switches in the Health Science area. This project will complete the electrical design and replace all of the switches. This project can be designed, bid and constructed in the current fiscal year.

- **HVAC Controls Replacement (Sitka)**: The HVAC control systems throughout the Sitka building are old pneumatic that gives UAS limited options to controlling the heating and ventilation system. This project will replace the pneumatic controls with digital controls that can be read, monitored and controlled by the building automation system. This will allow implement building HVAC control strategies that will help save money on utility costs. This project supports UA’s priority of reducing fixed cost base by increasing efficiency of the heating and ventilation system and lowering annual energy costs.

**UAF Community and Technical College Renewal (CTC) (renovate restrooms)**

(GF: $300.0, NGF: $0.0, Total: $300.0)

UAF’s Community and Technical College provide high-demand work-force development degrees and training programs across the Interior of Alaska. Programs within the college such as emergency services training and airframe and powerplant certification quickly prepare students for immediate placement in skilled trades. The college’s facilities are mostly comprised of aged buildings given to the University and repurposed for these programs. Deferred maintenance was transferred with most of these assets and the facilities suffer from functional obsolescence.
FY23 Priority Deferred Maintenance (DM) and Renewal & Repurposing (R&R) Project Descriptions

- **University Park Restroom Renovation**: The restrooms at the University Park Building are of 1957 vintage, installed when the building was an elementary school. The restrooms are in poor condition and do not provide proper sanitation facilities for the users. The project will completely gut and renovate the restrooms to bring them up to current standards and code and make them fully operational. The upgrade will replace plumbing, water closets, sinks, old convection heating terminal units, tiles, and restroom accessories and create ADA accessible stalls.

**UASO Replace Emergency Egress Lighting Power Supply (Butrovich)** (GF: $200.0, NGF: $0.0, Total: $200.0)
The Butrovich building was constructed in 1988 and is at a point where many of its building components are reaching their life cycle end. Over the next five to ten years many of the main mechanical systems will come due for replacement or refurbishing.

This project will address issues with the emergency egress lighting power supply: replace the two oldest units, combine several units, and document emergency egress lighting and signage.
Proposal: Increase institutional agility within a single system and enhance cybersecurity capabilities

Background

The University of Alaska (UA) was an early adopter of student information systems (SIS). In the 1990s, very few statewide systems attempted to manage multiple universities with a single computer system. UA realized the value of a single system and worked within the limitations of the technology available at the time.

Currently, UA’s student-facing systems are out of date and compare poorly against peers in terms of delivering a quality student experience. UA must improve these capabilities to remain competitive in the marketplace and offer a more user-friendly entry point for the student. Due to the foundational design of our current implementation and heavy customizations, UA is currently unable to take advantage of many of the benefits provided through modern cloud delivered solutions. Current cloud-based systems are more capable of facilitating student recruitment, retention, and success for multiple university systems.

Additionally, cyber threats to the security of University data and assets have dramatically increased. The University will leverage this project to increase its capabilities when it comes to protection of University data and the data of its partners.

Impacts:

- Students encounter barriers when applying for admissions, registering for classes, paying their bills and many other essential functions. UA is working hard to increase the college-going rate in Alaska. These barriers add complexity to an already highly challenging registration process and can be a deterrent to increasing our enrollment.

- Increased vulnerability to cyber threats due to aged hardware, software and IT processes.

- Students must navigate through the entirety of the UA system when seeking to make routine transactions at their home campus.

- Simple improvements to the student experience must be negotiated among the three UA Universities and manually customized within the software. This makes the Universities less nimble and the system less responsive to the students’ varied needs which results in the universities being at a competitive disadvantage.

- UA spends significant resources supporting the customized solutions developed since the 1990s. This systemic friction prohibits timely upgrades and slows regular maintenance tasks which exacerbates the antiquated student experience. The level of work required for standard software upkeep diverts resources which could be used supporting the instructional and research mission.
Proposed solution

UA requests $20.0 million to modernize and secure the UA student’s higher education experience. UA would commit to implementing a vendor-provided, cloud-based solution for managing multiple universities in a single SIS or within a single product line that preserves efficiencies within the UA structure, allowing autonomy as possible where business practices are differentiated. Through this solution, UA would retain the many benefits of a single SIS system or features, and a common reporting structure, while allowing each university to innovate and adapt the system more quickly to their changing requirements.

As part of this effort, UA would:

1. Identify the best SIS vendor partner for ensuring success of this effort and long-term mission fulfillment
2. Seek opportunities to retire legacy customizations where the base system allows greater value than the customization
3. Identify new opportunities for each university to align the system to their scale and needs by enabling autonomy in a single SIS model
4. Fully implement the modern student-facing online user interface
5. Improve the operational model that supports upkeep of the systems with productivity and process efficiency in mind, moving forward
6. Deploy and implement additional security tools

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<th>Estimated Project Budget - Modernization of Student System</th>
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Critical Minerals and Rare Earths Elements $7.8 million

State investment in critical minerals will build upon existing momentum within the UA system to develop Alaska’s critical mineral industry. In the short term, it will leverage an existing Department of Energy grant and serve to promote manufacture of value-added Rare Earth Elements and Critical Minerals (REE-CM) based components (e.g., magnets for wind turbines, electric vehicles, military applications) in Alaska.

Alaska, as a state, has tremendous critical rare earth potential and to maximize this opportunity, UAF seeks to initiate a Critical Minerals Group (CMG) within the existing Mineral Industries Research Lab (MIRL) at UAF ($5.8M). The CMG would focus research and development efforts on the innovations to most effectively develop a critical minerals industry in Alaska. With this initiative UAF will grow the critical minerals industry in Alaska from exploration, to mining, to processing, and includes workforce mine training through Mining and Petroleum Training Service (MAPTS). UAF will create a critical mass of research expertise with a faculty cohort, renovate key labs and equipment to support faculty and students, as well as modernize workforce training facilities to accommodate new mining techniques. Develop techniques in conjunction with industry partners to improve yields and develop markets for products from critical and prospective mines. Hyperspectral imaging exploration to augment DGGS activity. Specific actions will include hiring a faculty cohort to lead teaching, research and training for commercialization, laboratory updates, and instrumentation for instruction and research.

Existing partners include Alaska DGGS, UAA, UCORE, Ahtna Native Corporation, JWP LLC, Technology Holding LLC, Red Leaf Resources Inc., Graphite One, ESP Research Inc., Arctic Slope Regional Corporation, Doyon Ltd, FGX Sep Tech LLC, NANA Regional Corporation, Usibelli Coal Mine, Vermeer, North American Coal. With state funding, the DOE-sponsored Technology Innovation Center focused on critical minerals can be expanded to incorporate a broader Critical Minerals Group (CMG), emphasizing not only value-added products, but also hyperspectral imaging for exploration, advances in metallurgy/mineral processing of Alaska ores, and mining workforce development (e.g., MAPTS program).

Immediate economic impacts of state investment include availing the group of continued federal funds ($7.5 million available in 2023), and further supporting the MAPTS program, which currently generates $3 million to $4.5 million per year in economic activity by training 40 – 60 mine workers annually. However, the long-term economic benefits of developing a robust critical minerals industry in Alaska far outweigh the short-term gains of the initial investment.

UAS proposes expansion of its programs in Mining Industry Workforce Development ($500K). UAS offers World-class workforce training in occupational fields leading to employment in the mining industry, with special emphasis on expanding an Alaskan workforce for underground Mine Mechanics. And has strong partnerships with Hecla Greens Creek and Kensington Mines.
Holding one of our nation's richest reserves of minerals, Alaska needs a strong, smart and responsible workforce to fill these roles. The Center for Mine Training at UAS is here to help Alaska's mineral extraction and processing industry by training students to get on the ground floor of highly lucrative and in-demand careers.

UAA proposes two focus areas in this initiative. The first is Enhanced Recovery of Alaska Rare Earth Elements through Bio-Weathering Technology through the UAA College of Arts & Sciences (CAS) ($1.3M). This project will advance new methods for extraction and processing of Rare Earth Element (REE) resources in Alaska. Development of a novel bio-weathering process can alleviate safety and environmental concerns of traditional acid mining. It will also increase the efficiency of REE recovery from mineral deposits around the state, including Usibelli Coal Mine. Combining new and established technologies into one process, has the potential to produce REE resources in an economic and safe manner. The project has near-term deliverables for developing a unique segment of Alaska's mineral industry. REEs are not currently mined or produced in America and Alaska has a wealth of these strategic resources. This project invests in key technologies and advances a new approach for rare earth development. By 2025, the technology would be scaled-up and fully developed for commercialization. The tech transfer and commercialization of these methods opens new possibilities for mining, leading to job creation and future revenue to the State of Alaska. The project is a partnership with the UAF College of Engineering & Mines and will involve collaborative work with the U.S. Department of Energy's Oak Ridge and Idaho National Laboratories. Additional stakeholders include the Alaska Department of Natural Resources, as well as Usibelli Coal Mine and Ucore Rare Metals Inc.

The second UAA project is Comparing Petroleum and Mineral Development in Alaska to World Standards through the Institute of Social & Economic Research (ISER) ($250K). This project will conduct comparative research evaluating Alaska's regulatory and environmental standards for petroleum and mineral development. The project analyzes the effects of Alaska regulatory standards and social institutions related to extractive activities with those elsewhere in the world. The study would compare Alaska's greenhouse gas emissions per barrel of oil, economic benefits for indigenous groups and environmental standards in mining locations. Research will help inform policymakers about best practices, address concerns by nongovernmental organizations and close comparison gaps with other resource-based economies. The project has near-term deliverables by benchmarking Alaska Statutes and regulations on petroleum and mineral development alongside those in peer-group countries. This research can help inform policymakers in an era when resource extraction is under increasing scrutiny from regulators, courts and the general public. Comparative research provides an understanding of environmental and social policy, royalties, and taxes. The project has a 1-year timeline and results will be available to provide context to ongoing policy making around Alaska's key export industries. The project will be in collaboration with researchers across the UA system.

Oil and Gas Recovery $5.0 million
This project is intended to develop technology enabling the production of heavy oil in the Ugnu formation, for which no production technique currently exists. A new enhanced oil recovery method, called polymer-alternating solvent (PAS), will enable heavy oil development in the Arctic, a 12-15 billion-barrel target. Funding will allow UAF to immediately begin lab work
leading to a field demonstration, conducted in partnership with Hilcorp, within two years. Development of this technology requires lab improvements and an increased faculty research capacity. A successful field demonstration will prove the technology necessary to add approximately 10 billion barrels of heavy oil to Alaska's recoverable reserve base. Successful development, demonstration, and ultimately deployment of the PAS method could also spur ancillary benefits such as development of an Alaska-based polymer production facility and may have practical application within the industry. This request is contingent upon the procurement of polymer for field trials in partnership with industry via procurement by industry partners or additional funds to industry partners for procurement (estimated at $5M).

**Unmanned Aerial and Underwater Vehicles Research and Development including workforce training and business development** $6.1 million

The Alaska Center for Unmanned Aircraft Systems Integration (ACUASI) and its partners (e.g. commercial/private, state/local government, native corporations) are testing technologies that would allow the drone to detect other aircraft in the air and either autonomously, or with the assistance of its pilot, avoid the other aircraft. ACUASI also is participating in the FAA’s aviation rule-making efforts to help develop regulations that will allow for the complete integration of drones in the airspace as the drone community resolves its technical challenges. As these efforts come to fruition and beyond the visual line of sight (BVLOS) flights become a reality, the University of Alaska is well positioned to offer certificates and degrees that will prepare the workforce for drone cargo logistics, aerospace engineering of aircraft and payloads, piloting skills, drone business oversight, and other aspects of the new drone commercial enterprise. The requested funding is designated to help break these technological and regulatory barriers and identify and develop the educational programs needed as a foundation for the commercial drone industry.

Currently ACUASI is partnered with a wide variety of commercial entities (e.g., Alyeska Pipeline Service Company, Merck, Volansi, Echodyne, Parallel Flight, Insitu, Phenix Solutions, Pacific Dataport), local governments (e.g., Fairbanks North Star Borough, North Slope Borough), state agencies (e.g., State of Alaska Department of Transportation and Public Facilities, Department of Geological and Geophysical Surveys), Native Corporations (e.g., Tanana Chiefs Conference, Doyon), and others. This list is not exhaustive and ACUASI is adding new partners frequently, as FAA representatives and other in the drone community recommend companies work with the ACUASI team to achieve their goals of commercial drone operations in the U.S.

UAA Unmanned Aerial Vehicle (UAV) Pilot Training Program funding will develop comprehensive training and certifications for the operation of unmanned aerial systems, in accordance with FAA guidelines for flight over populated areas. As the use of UAVs expands in both national security and commercial business, there is increased demand for skilled-operators and pilots. As a leader in aviation and aviation tech instruction, UAA is uniquely positioned to train the next generation of pilots in remote transportation and aerial systems.

The UAF Glider Lab would be able to deepen or develop new partnerships with Alaska Department of Fish and Game (ADF&G) and the Alaska Department of Environmental Conservation (ADEC). Programs that would have appropriate focus and jurisdiction include
marine realm ADFG fish and shellfish management and research; the ADFG Marine Mammal Program; the ADFG Chinook Salmon Research Initiative; and the ADEC Division of Spill Prevention and Response.

In the short term, the UAF glider program will create new well-paying high-technology support jobs at UA and in select partner coastal communities. It will also provide seed funding for one new research faculty position that will leverage the State’s investment by attracting additional federal dollars to the state, helping to ensure the lasting sustainability of the other created jobs. In the long term, the data collected by these gliders will engender better-informed fisheries management, with extensive economic and food security benefits for all industries and coastal communities that rely on marine harvests. On the technology development side, spin-off of Blue Economy high-tech small businesses are possible with faculty support.

**Mariculture, North Pacific Fisheries, Arctic and Pacific North Ocean Sciences $7.0 million**

Mariculture, Fisheries and Ocean Sciences at UAF and UAS

Alaska’s coastline is longer than all other 49 states combined, and roughly two-thirds of the nation’s fishery is harvested from Alaskan waters. Within the state, the combined seafood and fishery industries are the largest private employer. At the same time, environmental factors threaten continued success of wild harvest. A new industry is emerging - seaweed and shellfish farming, called mariculture. Mariculture can become the economic driver for the state as the field is only in its infancy. There are applications for pharmaceuticals, food additives, and food stability. The Governor's Mariculture Task Force set a goal to grow a $100 million industry in 20 years, with university training and research and development critical to reaching this goal. UAF and UAS coordinate with state and federal agencies in fisheries, mariculture, and ocean sciences making UA a leader in these arenas. Investment will increase Alaska’s market share in a global economy.

At UAF, funding ($5.0M) would support efforts to build capacity in Decision Support for Production Scale Development (including graduate workforce research and partnerships) to (1) build workforce capacity in Fisheries/Mariculture for reducing harmful algal blooms pervasive in Alaska; (2) develop a decision support tool for stakeholders to assess economic feasibility of production-scale hatchery supported mariculture in Alaska; (3) establish foundational genetic infrastructure for seaweed farming in South Central Alaska; (4) develop applications for kelp mariculture; (5) evaluate climate and local environmental factors on economic impacts to fishery dependent communities; and (6) engage and strengthen connections with coastal and Indigenous communities to answer relevant research questions and train the workforce.

At UAS, funding ($1.8M) would be used for maricultural and undergraduate fisheries in southeast Alaska. Included in this request are funds to (1) upgrade UAS’s Teaching and Instruction facility to provide coastal classrooms and laboratories to provide world class opportunities for unique hands-on experiences; (2) construct floating docs, nursery equipment, and associated field equipment; (3) provide industrial space to house equipment and material to support research and training initiatives (4) expansion of instructional faculty, student advisors, and technical support.
Fisheries at UAA
At UAA, funding ($0.3M) will support the Institute of Social & Economic Research (ISER) research studying the Economic Shock and Workforce Development in Commercial Fisheries. This project will provide a better understanding of how shocks in commercial fisheries impact community employment and youth educational outcomes. Fisheries based economies, particularly Alaska's rural coastal communities, are often subject to boom or bust returns that can have substantial ripple effects across communities. These fluctuations influence student aspirations and decisions regarding whether to enter fishery-sector employment or undertake entrepreneurial opportunities. Reversing this trend by building the next cohort of young Alaska fishermen will provide short and long-term economic benefits. Research will shed light on these issues and potential policy solutions. The project will be conducted in partnership with stakeholders such as Alaska Sea Grant, Alaska Marine Conservation Council, as well as the Alaska Vocation Technical Center (AVTEC) and Alaska Department of Education & Early Development.

Health $3.5 million
UAA has identified four major initiative areas ($3.3M) that will strengthen workforce development to meet state needs, especially in the area of nursing.

Stabilizing Nursing Faculty and Program Retention will ensure faculty for high-demand healthcare programs within UAA's College of Health (COH). As the state faces an acute health workforce shortage, competition for faculty and instructors impedes the success of UAA's statewide nursing programs. This initiative will secure continuity within COH by stabilizing key faculty positions. The project will have near term impacts by helping attract and retain instructors here in Alaska through incentives and professional initiatives. The project will be done in partnership to serve the entire UA System, and incorporate stakeholders across Alaska's health care system.

Alaska Healthcare Education Center (AHEC) Program Expansion will expand the Alaska Healthcare Education Center (AHEC) and advance new and existing pathways to grow our state's health workforce. The AHEC system is Alaska's largest multi-discipline student placement organization for clinical and experiential learning. The program brings Alaskans into health professions through youth health careers exposure, pre-employment training, apprenticeships, and community based experiential learning for students. AHEC is well connected to key stakeholders in their respective regions including healthcare facilities, school districts, job centers and tribal organizations. AHEC also furthers retention of healthcare providers through high quality continuing education. The project has near-term deliverables which will help address crucial needs in Alaska's workforce. Funding will allow AHEC to increase student placements and create a real-time statewide student placement database system for health disciplines. The project will be done in partnership to serve the entire UA System, and incorporate stakeholders across Alaska's health care system.

Health Simulation Center Digitization Project will upgrade COH's simulation center technology to better serve nursing and health program students statewide. Robust audiovisual technology is essential for students to acquire hands-on learning and clinical knowledge. The center currently serves more than 600 students in 17 academic programs across the UA System. Funding will
equip the center with cutting edge technology, optimizing scenario-based learning with high
definition video streaming and Zoom-like interactive distance delivery. This enhanced service
will be portable, and able to host trainings from various UA lab facilities. This project increases
innovative work-based learning opportunities, and improves access to training for high-demand
health fields. The project will be done in partnership and designed to serve the entire UA System,
while incorporating stakeholders across Alaska's health care system.

Health Professional Continuing Education Program will provide online self-directed continuing
education for Alaska health professionals. This helps meet the needs of health and human
services providers, allowing professionals an efficient way to fulfill licensure and certification
requirements. The program has near-term deliverables, and will incorporate academic and
programmatic leadership training to prepare professionals for finding solutions to healthcare
challenges in Alaska. The project will be done in partnership to serve the entire UA System, and
will incorporate stakeholders from across Alaska's health care system.

At UAS, investment will allow for expansion of existing health workforce training and
preparatory programs for high demand careers in healthcare. Funding ($0.2M) will allow for
expansion of popular courses including those which enable students to sit for state and/or
national certifications such as Certified Nurse Aide (CNA), Medical Assistant, and Emergency
Medical Technician (EMT) training. UAS would use $200K to hire two much needed Nursing
faculty members. UAS works closely with UAA, Bartlett Regional Hospital, PeaceHealth
Ketchikan, and SEARHC.

**Alternate Energy $2.1 million**

UAF proposes a $1.5M investment to address important gaps in our understanding of small
nuclear energy systems and related technologies for the Alaska market through work already
taking place in the Alaska Center for Energy and Power (ACEP). Alaska is in a strong position to
be an early adopter of a new generation of small micro- and modular nuclear reactor
technologies that could unlock economic development opportunities currently constrained by
access to stably priced, reliable energy including heat and power. This includes expanded
economic development opportunities for rural communities, military bases and defense sites, and
place-based industries such as mines whose development is often hampered by energy access
and cost.

Microreactors could also play an important role in attracting more renewable energy
development to the state, since they can provide a carbon-free source of baseload power and
regulation services to support variable renewable technologies like wind and solar. In addition,
because these systems can readily supply heat in addition to electric power, the Arctic is ideally
suited to be an early technology adopter. Over a dozen vendors have expressed interest in
specific Alaska use cases, and this project will leverage and accelerate that interest from the
private sector – including both developers and end-users – ensuring Alaska remains at the
forefront of the national conversation when it comes to the development of small reactor
technologies.

This project will involve a number of agency and industry collaborations. Primary state agencies
will include the Department of Environmental Conservation, and the Alaska Energy Authority.
These will complement federal agency and national laboratory engagement including the Nuclear Regulatory Agency, Department of Defense, and the Department of Energy Office of Nuclear Energy. We also anticipate accessing subject matter expertise from relevant Department of Energy national laboratories, including Idaho National Laboratory, Pacific Northwest National Laboratory, and Los Alamos National Laboratory.

Industry partnerships will include the electric power industry (primarily Railbelt utilities), the mining industry, native corporations, and the small business/entrepreneurial sector. UAF will also explore opportunities for attracting new place-based industries and opportunities to Alaska ranging from the petrochemical industry, to manufacturing, to hydrogen production and export.

UAA’s Commercial Fishing Fleet Engine Hybrid Project ($0.6M) will develop a hybrid battery diesel-electric system for commercial fishing vessels. Two vessels will be converted to hybrid power propulsion systems and field tested for performance assessments. The research will identify opportunities in compact hybrid propulsion, as well as demonstrate the fuel savings of shipboard microgrids. It will also develop simulation protocols for designing hybrid systems for fishing vessels, and educate community members about using novel marine energy systems. The project will be the first to work with alternative energy systems on commercial fishing fleets, and will help create a local workforce prepared for an energy transition in marine vessels.

The project has substantial near-term deliverables for Alaska's fisheries and maritime economy. Converting two commercial fishing boats to hybrid electric will establish the potential for alternative energy systems within commercial fishing fleets. This is a first step in diversifying the energy mix amongst the fleet, which is currently dependent on diesel. This could lead to substantial savings for fishermen whose fuel costs can equal more than 20% of gross fishing income. Initial research and models suggest hybrid propulsion systems in troll, long line and gill net fisheries may reduce fuel consumption by 30%. We expect that this collaborative project will accelerate an energy transition in the fishing fleet in the state of Alaska by 2025 and improve the sustainability of fisheries.

The project is a partnership with the Alaska Longline Fishermen's Association (ALFA) and the UAF Alaska Center for Energy and Power (ACEP). Additional stakeholders include Alaska Sea Grant, utilities in Kodiak and Kotzebue, as well as the Alaska Marine Safety Education Alliance.
Capital Budget
References
Facilities Deferred Maintenance (DM) and Renewal and Repurposing (R&R)

FY24-FY25 (GF: $100,000.0, NGF: $0.0, Total: $100,000.0)
FY26-FY27 (GF: $100,000.0, NGF: $0.0, Total: $100,000.0)
FY28-FY32 (GF: $150,000.0, NGF: $0.0, Total: $150,000.0)

The University of Alaska (UA) is Alaska’s system for higher education and a world leader in arctic and climate change research. UA is responsible for maintaining facilities and infrastructure across the state, with nearly 400 facilities totaling 8.3 million gross square feet, an average age of 35 years, an inflation-adjusted value of $4.9 billion, and a deferred maintenance/renewal & repurposing (DM/R&R) backlog of nearly $1.4 billion.

Due to many years of unfunded deferral of critical capital projects, there is an increasing risk and evidence of building closures. There have been numerous unplanned closures causing significant hardship on student learning and research activities, as well as the associated lost productivity of university students, faculty/researchers, and staff.

Major Maintenance and Renewal Projects

UAA Social Sciences Building Space Optimization

FY24-FY25 (GF: $7,632.0, NGF: $0.0, Total: $7,632.0)
FY26-FY27 (GF: $1,908.0, NGF: $0.0, Total: $1,908.0)

Renovates the social sciences building (60,000 gsf) creating flexible office spaces and integrating post-covid19 workspace flexibility including hoteling and collaboration zones that will promote creativity amongst research and staff teams. Project includes relocation of programs from BOC to UAA core campus which will improve access to research and will promote improved collaboration while also addressing some deferred maintenance. Programs that will be relocated include: Arctic Domain Awareness Center, Business Enterprise Institute.

UAA College of Business and Public Policy Space Optimization

FY24-FY25 (GF: $6,384.0, NGF: $0.0, Total: $6,384.0)
FY26-FY27 (GF: $1,596.0, NGF: $0.0, Total: $1,596.0)

Renovates the 2nd and 3rd floor of Rasmuson hall creating flexible office spaces which will allow relocation of Institute for Social and Economic Research (ISER) from BOC to main campus. ISER is Alaska’s oldest public policy research organization and this relocation increases program synergy between CBPP and allows improved access to research for students. Project will address some deferred maintenance items and it will create improvements to the student collaboration and student success spaces.

UAA Welcome Center and Student Services P3

FY24-FY25 (GF: $5,000.0, NGF: $0.0, Total: $5,000.0)

The existing facilities in the campus core are in critical state for failure due to existing aging infrastructure. This project will leverage opportunities for Public Private Partnerships to renovate and rebuild the infrastructure creating a new space providing improved services to students. In accordance with the UAA Master Plan 2013, the Student Union and Sports Complex needs major renewal and replacement. There is $30.8M in deferred maintenance and there is $1.5M in annual recurring operations and maintenance at this facility. According to the masterplan, this building is located in the campus core zone. The campus core zone is located next to Chester Creek and is surrounded entirely by adjacent campus academic zones. Due to this proximity, this zone is the primary hub and connector for the campus as a whole and serves as a recreational and extra-curricular hub for students. This zone is the heart of UAA. It is a place of gathering and primary interface between academics, student life and visitors.
FY24-FY32 Capital Budget Request Project Descriptions

**UAA Exterior Safe Access and Circulation Improvements**
FY24-FY25 (GF: $500.0, NGF: $0.0, Total: $500.0)
FY26-FY27 (GF: $1,000.0, NGF: $0.0, Total: $1,000.0)
FY28-FY32 (GF: $500.0, NGF: $0.0, Total: $500.0)

This project will improve safe access and circulation for non-motorized and motorized needs through Anchorage main campus. The 2013 Master Plan identified a prioritized need to develop this project in response to rapid growth within the UMED district and corresponding traffic during peak hours. This project will create a vision for that growth to occur in a coordinated and thoughtful manner with input from stakeholders and community partners. With increases in traffic to the growing UMED district coupled with decisions to relocate critical UAA services to main campus - including Seawolf Hockey and Enrollment Services relocation. Better identifying safe routes for motorized and non-motorized traffic is increasingly vital. This project will assist in peak traffic congestion and improve safety for all campus users.

**UAA Health Lab and Workforce Demand Renovation and P3**
FY24-FY25 (GF: $2,830.0, NGF: $0.0, Total: $2,830.0)
FY26-FY27 (GF: $770.0, NGF: $0.0, Total: $770.0)

The Alaska healthcare industry requires a wide variety of competent newly trained, certified, or licensed healthcare professionals to enter the workforce. Currently 15 College of Health Programs use simulation along with traditional clinical practicums to educate students. Also, Alaskan healthcare workers require ongoing training and professional development supported by clinical simulation.

**UAA Sports Complex Capacity Improvements**
FY24-FY25 (GF: $3,000.0, NGF: $0.0, Total: $3,000.0)
FY26-FY27 (GF: $11,000.0, NGF: $0.0, Total: $11,000.0)

UAA’s Sports Complex is multi-use facility constructed in 1977. It houses a basketball court, swimming pool, intramural athletic offices, and Student Affairs department, along with UAA men’s hockey training and locker room facilities, practice rink, and hockey administrative offices. The ice rink currently provides retractable bleacher seating for approximately 800 spectators. The Sports Complex sits adjacent to the Student Union building to the east, the campus pedestrian spine and Rasmuson Hall to the west, parking lots to the south and northwest, and wetlands and a code-required fire lane to the north – all of which serve as constraints to the expandability of the Sports Complex. Inside the facility, recently renovated and improved hockey facilities sit adjacent to the rink; the main campus pedestrian spine bisects the Sports Complex on the main concourse level in the east-west direction. These interior features serve as internal constraints to the reconfiguration and renovation of existing space. Per WCHA guidance provided to UAA, and to match the minimum capacity of the smallest current WCHA facility, spectator capacity for regulation conference games should be 2500 minimum. This project expands the seating capacity from 800 to approximately 2290. An increase in occupant load and expansion triggers the need for additional restrooms, concessions, entrance/exit locations, and modification to building systems.

**Rasmuson Library Student Success Center**
FY24-25 (GF: $5,575.0, NGF: $0.0, Total: $5,575.00)

A portion of the Rasmuson Library will be renovated and modernized to create a central, collaborative hub for student support services. The outcome will integrate high impact academic and advising functions in a student-oriented starting space. This is critical for providing a modern, connected student experience with services, advising, tutoring and equitable access for all students in a common framework to increase retention efforts and student degree completion.

Approved 11/11/2021
FY24-FY32 Capital Budget Request Project Descriptions

UAF University Park Childcare and Early Childhood Development Center
FY24-25 (GF: $5,850.0, NGF: $0.0, Total: $5,850.0)
UAF has long needed more childcare and childhood development options for employees. This project will renew and repurpose the southwest wing of the University Park building to support change of use for a Child Development Center. Work includes renewal of 10 classrooms and associated ancillary spaces to create early childhood education labs and construction of age-appropriate restrooms, eating, and playground facilities. Major mechanical and electrical systems will also be revitalized to serve the intended purpose.

UAF STEM Lab Renewal for Alaska Industry Initiatives: Critical and Strategic Minerals/Heavy Oil Extraction
FY24-FY25 (GF: $5,500.0, NGF: $0.0, Total: $5,500.0)
Emerging STEM programs in critical and strategic minerals, mining, enhanced oil recovery, aeronautics, and unmanned aerial vehicles have expanded in enrollment and research capacity. The program expansion has outgrown the available laboratory spaces in Duckering. The project will renovate older, recently vacated labs for new modern STEM needs, leveraging existing space in the building to offer expanded opportunities in STEM. The work will tie into the UAF Middle College STEM offerings.

UAF Lola Tilly Repurpose for Student Engagement
FY24-FY25 (GF: $3,500.0, NGF: $0.0, Total: $3,500.0)
Lola Tilly is a public facing facility with easy access and parking for students and visitors. Its location on Tanana Drive makes it feel like a Main Street building and as such could serve as a great location for programs that have a high impact to UAF’s public facing functions. The repurpose and renovations will include demolition of an old cooking kitchen, enlarging bathrooms, and creating retail-like spaces that functions needing open-concept space can easily fit out through a tenant improvement. Where DM&R corrections can be leveraged into the scope they will be addressed within the project.

UAF Fine Arts: Theater Wing Major Renewal
FY24-FY25 (GF: $30,000.0, NGF: $0.0, Total: $30,000.0)
The project is a major renovation of the Salisbury Theater. It will address major building code and accessibility deficiencies, create new, smaller learning spaces appropriate for today's teaching methods and replace worn out mechanical and electrical equipment. The resulting variety of smaller learning and convening spaces will serve all of UAF and not just the Theater Department and College of Liberal Arts (CLA). The remodel will create a nominal 250-seat smart auditorium and several 1,000 SF to 2,000 SF open, level-floor rooms useful for meeting, classroom or theater activities.

UAF Elvey Building Renewal and Repurpose
FY24-FY25 (GF: $80,000.0, NGF: $0.0, Total: $80,000.0)
As part of the first phases of the West Ridge Deferred Renewal Plan, the Elvey Building will be completely renovated. The Elvey Building is home to the burgeoning Alaska Satellite Facility, Alaska Earthquake Center, and Alaska Volcano Observatory, and multiple academic programs related to geophysics and atmospheric sciences. The entire Elvey building will be renovated as the area has accumulated a significant backlog of maintenance with the original finishes and equipment, is functionally obsolete, and no longer supports critical research missions. Work will demolish all walls and ceilings, back to structure, upgrade the building for current seismic codes, and rebuild the space to current or best-fit use. A large electrical room will be relocated to a better location, free from roof leaks. New work will provide updated finishes, code compliance, new restrooms, increased ventilation, and better lighting and electrical distribution. The project will also increase the thermal performance of the exterior wall and roof, improving the energy efficiency and reducing operating cost. FY24 work includes the annex renewal, major mechanical/electrical systems replacement, and seismic upgrades. FY25 work includes the balance of the Elvey tower including a new exterior envelope.
UAF Arctic Health Research Center Deferred Maintenance & Renewal and Repurpose
FY26-FY27 (GF: $64,000.0, NGF: $0.0, Total: $64,000.0)
Major renewal, space repurposing, and code upgrades on the center core of facility. Portions of the building have been renovated leaving the west wing center core still needing repair, renewal, seismic updates, and corrections to laboratory functional obsolescence.

UAF O’Neill Building Renewal and Repurpose
FY26-FY27 (GF: $40,000.0, NGF: $0.0, Total: $40,000.0)
Major Renewal, space repurposing, and code upgrades for the entire building. Work will include seismic code corrections, ADA upgrades, energy upgrades and new exterior envelope. The building will be repurposed to offices, classrooms, and support spaces to reduce the total renovation cost.

UAS Natural Science Lab Consolidation
FY24-FY25 (GF: $950.0, NGF: $0.0, Total: $950.0)
UAS natural science lab is located off campus at the Natural Science Research Lab (NSRL) building. This building is located in an industrial part of Juneau, was not designed for academic laboratory research and limits how the University can use the space. This project will relocate UAS laboratory programs in the NSRL building to the Anderson Building on campus and next to the new Auke Bay Natural Science Building. Which will bring all of our Natural Sciences students, faculty and staff into one area for better continuity, and economy and synergy. This will enable UAS to sell the NSRL building resulting in reducing building space and reduce fixed cost base associated with operation and maintenance of the NSRL.

The NSRL property has inadequate parking to meet current zoning codes. UAS currently leases parking spaces on nearby private property which expired in 2020. This project will purchase adjacent land to provide all of the zoning required parking for the property

UAS Welding Lab Replacement - Juneau
FY24-FY25 (GF: $4,500.0, NGF: $0.0, Total: $4,500.0)
The Welding Lab resides in a building that is more than 60 years old and needs to be replaced. UAS purchased and remodeled the building in 1980. The roof was replaced in 1994, but other systems and components have not been upgraded and have reached the end of their service lives.

The building is very poorly insulated resulting in building heating costs being one of the most expensive on campus. The roofing system is past its warranty period and sprung another leak in October 2019. The electrostatic smoke arrestor for the welding booths is antiquated and requires specific sequencing methods to get it to come on. HVAC technicians say it could stop working any time. The fire alarm system is no longer supported by the manufacturer. The fire alarm service tech said that if we have one component failure now that he will not be able to get parts to make a repair. This will leave the building without fire alarm protection. The building structure does not meet current design standards for snow, wind and earthquake forces. The building is located in the west center of the property, prohibiting UAS from developing other more productive use of this waterfront property.

In 2018 a consultant prepared a condition analysis with three building upgrade options.
1. Remodel the existing building to bring it up to current building codes.
2. Build a new building
3. Remodel the existing adjacent Technical Education Center to accommodate the welding lab.

All three options cost basically the same with their recommendation to add a new section onto the existing TEC building.

This project will promote student enrollment by providing a modern educational space where students will be excited to attend. The project will remodel the existing TEC building to include welding stations, work bays, overhead crane,
supporting electrical, HVAC and mechanical systems. The old welding lab building will be demolished and the space opened up to allow for future development of the waterfront. This project will reduce fixed cost base by reducing the overall building area and associated operations and maintenance costs. UAS may then investigate extending additional leases of the waterfront space to increase revenues to the university system.

**UAS Egan Library / Cyril George Indigenous Knowledge Center (CGiKC)**

FY24-FY25 (GF: $0.0, NGF: $300.0, Total: $300.0)
FY26-FY27 (GF: $0.0, NGF: $600.0, Total: $600.0)
FY28-FY32 (GF: $0.0, NGF: $1,600.0, Total: $1,600.0)

More UAS students enrolled in 2021 Introduction to Alaska Native Studies, ANSS101, than any other class offered at UAS. This project promotes student enrollment by reinforcing our student’s enthusiasm for learning of Alaska Native culture. Indigenous languages of Southeast Alaska - Tlingit, Haida and Tsimshian are critically endangered with fewer than 200 fluent speakers. This project aims to create an Indigenous Knowledge Center to:

1. Centralize and promote the quality and value of Alaska Native/Indigenous knowledge;
2. Develop an Elders and Indigenous Scholars in Residence program;
3. Enhance access and delivery of hybrid courses in AK Native Languages to preserve the continuity of endangered indigenous languages.

The creation of the Cyril George Indigenous Knowledge Center (CGIKC) will focus around a primary architectural space, created sympathetically within the existing structure of the Egan Library. It will incorporate stacks for the primary book and audio/video collection, as well as provide a central socialization/conversation space and designated display space for Northwest Coast Art. This space will have the capacity for hosting and broadcasting small events (~30 seats) and function as the conduit or entry to other associated spaces, listed following, so that overall cohesion and identity to the center is clearly established.

Design concepts for the facilities include the following components:

1. Language Classroom and related spaces. A mid-size (20-30 seats) classroom for language instruction purposes fully outfitted to support a sophisticated blended/hybrid environment for study of Alaska Native Languages. An adjacent gathering space with kitchen for cultural food preparation, event staging, storage, pantry, and a small break area with table.
2. Instructional Technology Storage to provide a secure space for electronic and media equipment specific to language instruction.
3. Private Audio/Study Labs. Two small spaces, acoustically separated from adjoining spaces, but configured to allow visual control and connectivity to be used for language and oral history recording as well as for work with Elders and students.

**New Construction - Academic Facilities**

**UAF Fire and Emergency Services Training and Education Facility**

FY24-25 (GF: $41,800.0, NGF: $0.0, Total: $41,800.0)

The proposed Fire and Emergency Services Training & Education Facility will provide space to meet the current demand and future growth of the emergency services programs and continue to fulfill the university's missions and goals of high demand workforce development in emergency services. The replacement facility is envisioned as a living laboratory for student emergency responders; attending classes and labs adjacent to a fully functional emergency services station. The facility will contain apparatus bays and support spaces for fire and EMS, firefighter/medic living quarters for on-duty members, and training labs and classrooms for emergency services. The current facilities are over 60 years old, are significantly undersized, and will fail in a design level earthquake. The facilities have a substantial backlog of deferred renewal and the cost to address these items ($25 million) is nearly equal to the current replacement value ($30 million).
FY24-FY32 Capital Budget Request Project Descriptions

UAF Agricultural and Forestry Station Outreach Laboratory
FY24-25 (GF: $9,000.0, NGF: $0.0, Total: $9,000.0)
The proposed Outreach Laboratory will replace 5 aged-out buildings that provide programmatic delivery of agricultural sciences to Alaskans. The building will provide new space for existing staff at the Fairbanks Experimental Farm and UAF Cooperative Extension Service a classroom/classlab, and headhouse to support emerging and experimental agriculture science including OneHealth concepts for human health and wellbeing, animal health, and environmental health including food security systems/security.

UAF Troth Yeddha'/Indigenous Studies Center: Park & Building
FY24-FY25 (GF: $0.0, NGF: $40,000.0, Total: $40,000.0)
For many years, UAF and the Alaska Native communities across the state have envisioned a place to commemorate and acknowledge Alaska Native peoples on the UAF campus. Moreover, the university is attended by increasing numbers of indigenous students who have continually expressed interest in having a touchstone campus location that is reflective of their peoples' culture and traditions. The project will build an international Indigenous Studies Center on the Troth Yeddha’ land east of the UAF Museum of the North that will encompass a state of the art research, learning and cultural activities facility and a surrounding park. A total of $1 million in private gifts was received in FY19 with targeted fund raising of $5 million. A request for federal, private, partner or other funding is being explored.

UAF Community & Technical College (CTC) Aviation/Hangar Addition
FY26-FY27 (GF: $13,000.0, NGF: $0.0, Total: $13,000.0)
The UAF CTC Aviation Program is housed in a small hangar purchased in 2012. The facility is undersized for program offerings and enrollment. Construct an 18,000 square foot addition to the CTC Hangar to support the growing aviation program.

UAF Kuskokwim Campus Yup’ik Cultural Learning Center Expansion
FY26-FY27 (GF: $7,200.0, NGF: $0.0, Total: $7,200.0)
The UAF Kuskokwim Campus (KUC) envisions a 3,300 square foot expansion onto the front of this facility. Half would be a library expansion and the remaining half would be for a gift shop, offices, and conference room. This expansion would promote the university consortium collection.

New Construction - Research Facilities

UAF Science, Teaching & Research Building
FY24-FY25 (GF: $3,000.0, NGF: $0.0, Total: $3,000.0)
FY26-FY27 (GF: $97,000.0, NGF: $0.0, Total: $97,000.0)
This project will construct approximately 100,000 square feet of new research and academic laboratory and classroom space to fill the critical needs of Fisheries and Ocean Sciences, Natural Resources, and the UA Museum of the North. The facility will be constructed with labs, offices, classrooms and required infrastructure. Initial funding will provide concept designs and estimates. The building will replace laboratory space in out-of-date buildings that cannot serve modern teaching and research in these disciplines. The project will also substantially reduce the deferred maintenance backlog in these existing buildings (O’Neill, Irving 1 and 2, and Arctic Health Research Building) and allow for the removal of one of these facilities (Irving 2) from UAF’s Facility Inventory.
FY24-FY32 Capital Budget Request Project Descriptions

UAF Toolik Research Field Station: Classroom
FY24-FY25 (GF: $0.0, NGF: $3,000.0, Total: $3,000.0)

Toolik Field Station (TFS) is a world-renowned research facility with hundreds of scientific researchers in residence during the busy summer season. None of the existing facilities are suitable for use as a classroom and the addition of a classroom will allow seminars, small conferences and undergraduate field classes at TFS. This will add educational elements to the TFS mission and strengthen both the graduate and undergraduate research programs at UAF.

New Construction - Student Life (Housing), Support, and Other Facilities

UAF Student Success: Housing Revitalization
FY24-FY25 (GF: $82,500.0, NGF: $0.0, Total: $82,500.0)

New, modern residence halls are needed to replace facilities that were built in the 1960's and have aged out. Today’s students are expecting clean, affordable halls on campus that offer both private and community spaces, and that enhance their learning outside of the classroom. Phase 1 funding will complete design work through design development. Approximately 400 beds in four existing dormitories will be taken offline and those buildings demolished as part of this project, significantly reducing on-going maintenance costs and deferred renewal backlog.

UAF Student Success: Core Campus Parking Garage (Possible P3)
FY24-FY25 (GF: $30,000.0, NGF: $0.0, Total: $30,000.0)

The construction of an on-campus 1,100 space parking garage will provide consolidated parking, open up valuable land for future buildings, improve the appearance of the lower campus entry, and provide convenient, short-term parking for visitors, part-time students and events on campus. UAF will review financing and procurement methods, including P3 partnerships, to achieve the lowest cost/benefit rate per spot.

UAF Student Success: Patty Ice Rink Reconfiguration
FY24-FY25 (GF: $12,000.0, NGF: $0.0, Total: $12,000.0)
FY26-FY27 (GF: $48,000.0, NGF: $0.0, Total: $48,000.0)

This project will reconfigure the Patty Ice Rink, increase the seating capacity from 1,300 to 3,500, improve the locker-rooms for NCAA competition and local hockey events and provide Title IX required parity in the facility. The expansion will allow UAF to eliminate a major off-campus lease for the NCAA sanctioned sports team and increase opportunities for community outreach.

UAF Student Success: Student Recreation Center Expansion
FY26-FY27 (GF: $750.0, NGF: $0.0, Total: $750.0)
FY28-FY32 (GF: $12,000.0, NGF: $0.0, Total: $12,000.0)

This project will begin to alleviate the overcrowding and scheduling issues in the too small student recreation center. The current facility was built during substantially lower student enrollments. The expanded facility will provide interior recreation for Fairbanks students, staff, faculty and the community.

New Construction - Infrastructure

UAS Strengthen Campus Security - Juneau, Sitka, Ketchikan
FY24-25 (GF: $500.0, NGF: $0.0, Total: $500.0)

Crime rates in the United States are continuing to increase and Juneau is not exempt. In 2019 UAS had three sexual offences, two burglary offences and 40 Liquor/Drug violations. University students, parents, staff and faculty are expecting the University to provide more active security measures on campus including cameras, electronic locks, panic
FY24-FY32 Capital Budget Request Project Descriptions

buttons, security guards, safe rooms and specialized training. This project will include contracting with a professional security consultant to analyze the three UAS campuses, identify potential threats, investigate weaknesses, test existing security measures and then make recommendations on how to improve security on our campuses. This project will then install and implement the security improvements recommended by the consultant to have the largest benefit with the university’s limited budget, which are anticipated to include more security cameras and electronic locks.

Research for Alaska

UAA CPISB Combined Heat and Power Energy Savings Project
FY24-25 (GF: $1,100.0, NGF: $0.0, Total: $1,100.0)
This project will add combined heat and power (CHP) microturbine to the CPISB building. The localized generation of power provided by the CHP will reduce the overall peak electrical demand and eliminate energy transmission losses experienced through standard electrical distribution grids. Combined, these energy savings will reduce operational costs, reduce overall greenhouse gas emissions, and promote environmental stewardship. This project is part of a grant proposal and partnership between UAA and Alaska Energy Authority. If funded, the project will provide research and data supporting the US Department of Energy, Office of Energy Efficiency and Renewable Energy Building Technology Proving Ground - Public Field Verification. If successful, the project will serve as a model to expand to other public facility owners including other UAA facilities. This project is consistent with the strategic goals identified as part of the Anchorage Climate Action Plan to reduce greenhouse gas emissions and provide improvements to sustainable outcomes in our community.

UAF Poker Flat Research Range (PFRR) Oil Spill Research Test Basin
FY24-25 (GF: $750.0, potential NGF: $1,000.0, Total: $1,750.0)
This capital funding will provide for improvements to the Poker Flat Research Range (PFRR) Test Basin used by both University of Alaska Fairbanks (UAF) investigators and oil and gas industry researchers to investigate oil-spill mitigation technologies and techniques – especially in Arctic waters with ice present. In 2015, UAF researchers performed a series of successful experimental burns at the PFRR Test Basin as a project within a UAF/industry partnership. International Oil and Gas Producers Association funded research aimed at improving understanding of how herding agents could aid mitigation of Arctic oil spills. Both unmanned aircraft and piloted helicopters were used to conduct the tests and monitor the results. Recent permanent closures of similar test basins around the U.S. have highlighted the importance of the PFRR Test Basin that is now poised to become the premier facility of its kind for both research and training for oil response and mitigation.

A combination of the researchers, facilities, and location in the Arctic or Subarctic drive research opportunities at UAF. Often, the facilities attract researchers and in-turn they draw the funding for research projects. At UAF there are many such facilities including PFRR, Alaska Satellite Facility, Toolik Lake Field Station, and the High-frequency Active Auroral Research Program. In order to attract new sponsored programs, these research facilities often need an injection of capital for specialized equipment, or an upgrade to existing facilities that sponsors cannot fund. With a modest number of additions and modifications to its infrastructure, the Test Basin would become the premier oil spill test facility in the U.S. Its remote location, high latitude, university ownership, and open airspace make it ideal for testing and innovation on many fronts.

Scope
Oil and Gas Industry sponsors and federal regulating agencies regularly contact researchers at the Geophysical Institute to continue research projects at the PFRR Test Basin. There are currently two projects scheduled for Spring 2021 that include $300,000 of sponsored funding. The demand for this research is expected to increase and improvements to the Test Basin and its facilities will enhance industry participation. The experiments include the use of variety of in situ and remote sensing equipment that will be supplied by the sponsors. The Test Basin must provide facilities for experiment preparation, data collection, data analysis, cleaning, preparation, and hazmat handling. Experiment hardware booms and manipulators will be required. Researchers need a heated location to record and manage data as experiments will be
conducted year-round with many being ice-related. The current Basin depth is 3 feet, which means water will freeze all the way to the bottom. There is a need to increase the depth of the Test Basin to allow experiments and observations below the ice.

The PFRR is a Federal Aviation Administration test range which allows for unmanned aerial systems operations. This is an important feature as it allows researchers to observe and collect data in a variety of ways. In the previous successful basin tests, ACUASI played a vital role for operations and observations. The remote location of the Test Basin at PFRR, 35 miles from the UAF campus, will allow for in situ burning.

**Collaboration**
The 2015 research was conducted with a collaboration between the Geophysical Institute and the Institute of Northern Engineering. Future projects are anticipated to continue this collaboration with expansion to include other UA campuses and disciplines. Much of the engineering infrastructure needed at the Test Basin could be designed, built and operated by UAF engineering students as part of their Capstone Project.

**UAF Alaska Roadmap for Nuclear Reactor Applications**

FY24-FY25 (GF: $1,000.0, potential NGF: $1,900.0, Total: $2,900.0)

**Purpose**
This Capital funding request is designed to enable the Alaska Center for Energy and Power (ACEP) at UAF to engage with Alaskan stakeholders in the exploration of safe, affordable and impactful pathways for potential implementation of advanced nuclear reactors.

The advanced nuclear reactor industry is focused on developing systems that are sized to provide combined heat and power services on a scale well-aligned with the heat and power needs of multiple defense, industry, utility, and community sectors in Alaska. A roadmap is required to appropriately prioritize and sequence the related opportunities, identify needed risk mitigation activities specific to Alaska applications, and characterize key integration and implementation requirements. Near-term actions aligned with the roadmap’s guidance can gather critical information, mitigate key risks, and ensure maximum synergy with existing conventional energy systems.

ACEP has the technical acumen, Alaska stakeholder awareness, and industry access required to develop and launch implementation of this needed roadmap. The effort will incorporate insights from 2019/2020 Department of Energy and Department of Defense grants to the University of Alaska for preliminary analyses related to nuclear microreactor integration, and build on the foundation provided by the Small Scale Modular Nuclear Power: An Option for Alaska? study published in 2011 at the request of the Alaska legislature. In addition, future federal fiscal resources will be leveraged at up to a 4:1 ratio through availability of the state funding investment.

**Scope**
This project will be an integrated five-year effort performed by ACEP researchers (faculty, undergraduate/graduate students, post-doc) with complementary (no state-of-Alaska funding) inputs from industry and the Department of Energy. Status briefings with supporting documentation will be made available to Alaska legislative personnel on a quarterly basis.

Year 1, Roadmap Development ($300K) – ACEP will develop and publish materials complementary to those in the 2011 Small Scale Modular Nuclear Power: An Option for Alaska? study, focused on evolving trends that include the following topics:

- **Technology** – micro-reactors / small modular reactors, fuels, civilian and defense programs
- **Regulatory** – US, Canada
- **Siting** – regulatory evolution, exclusion zones, internet / communications, workforce, security, energy transmission / distribution infrastructure, etc.
- **Integration Technology Assessment** – technical and cost attributes for critical elements of integrated energy systems (energy storage, transmission/distribution, heating circuits, load management, etc)
- **Finance and ownership models** – private versus utility owned / operated
FY24-FY32 Capital Budget Request Project Descriptions

- **Case studies** – Analysis of specific Alaska use case studies including a review of energy requirements (power, heat), existing / evolving infrastructure, transportation logistics.

A composite roadmap will be prepared that incorporates key readiness metrics, critical action steps, decision gates, etc. based on consideration of a minimum of five specific case studies (military base, remote industrial site, hub town, northern port, remote community). Input gathered from Alaska stakeholders via a combination of outreach workshops and surveys will be used to identify attributes of a preferred case study for detailed study in subsequent phases of the effort.

**Year 2**, Roadmap Implementation Guidance ($250K) – ACEP will develop and analyze an energy system architecture for the selected case study, characterizing both its technical and fiscal performance attributes. The system conceptual design will be refined based on review by cognizant Alaska utility, microgrid developers, Alaska Energy Authority, and Department of Energy personnel. A detailed computer model of the proposed system will be developed for use in conjunction with “digital twin” efforts by industry and DOE researchers, enabling integrated analysis of evolving technology developments.

**Year 3-5**, Continued Support for Roadmap Implementation ($150K/year) – ACEP will continue to support roadmap implementation for Alaska. In addition, ACEP will track industry developments at the national and international level and reports submitted to the legislature annually.

**Equipment**

**UAA Classroom Technology Enhancements**

FY24-FY25 (GF: $4,000.0, NGF: $0.0, Total: $4,000.0)
FY26-FY27 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
FY28-FY32 (GF: $5,000.0, NGF: $0.0, Total: $5,000.0)

With rapid change in expectations for delivering curriculum remotely, this project will provide upgraded technology to augment curriculum delivery for critical face to face classes. These enhancements will allow for more online curriculum deployment and will provide equitable access for students that require more flexibility amidst a variety of community and health challenges.

**UAF Inclusive Technology Infrastructure: eCampus Recording Capabilities, ADA Accessibility & Instructional Classroom Technology**

FY24-FY25 (GF: $4,000.0, NGF: $0.0, Total: $4,000.0)

For today’s students, the digital world is ubiquitous, immersive and is their habitat. Investing in current technologies is necessary to engage students and provide a present-day media-rich learning experience and drive student success. An engaging digital experience for students and instructors throughout multiple learning environments reduces barriers, increases accessibility and boosts student participation, enrollment and retention. The following investment requests each present opportunities to transform the UAF learning experience.

1. eCampus HyFlex Classrooms, Recording Capability, Video “One-Button” Studio & Accessibility Stations: $2,000.0
   - HyFlex Learning Glass Enabled Classrooms (15): $1,500.0
     Instructional technologies include Learning Glass technology and dual stream recording capability to support the streaming and capture of instruction for synchronous and asynchronous modalities. Additional improvements include lighting upgrades and audio upgrades for instructor and student participation, and retractable green screens. Technology improvements include standard digital classroom improvements (presentation, video conferencing, lecture capture, streaming and mobile technologies). These technology upgrades fully facilitate the HyFlex modality, supporting combinations of synchronous, asynchronous, and face-to-face learning experiences eliminating space and time based barriers to learning.
   - eCampus Media Studio Upgrades (2): $100.0
Provides for enhanced media production from our two campus based studios. Improvements would include upgraded recording equipment (video and audio) as well as improved post-production equipment, supporting increased demand and capacity requirements.

- **Sound Isolation Booths (2): $50.0**
  Provides a sound proof space for students and instructors to produce quality audio recordings for asynchronous course elements as well as host online synchronous learning sessions.

- **One Button Studios (5): $250.0**
  These self-service studios provide high quality video media production equipment. Students and instructors are able to walk-in, click a button, and walk-out with their own video media project. The one-button concept eliminates the production wait time for a finished product and significantly reduces staff support required for video production services. This greatly enhances media production capacity to better support our distance based courses and online programs.

- **Center for Accessible Technology: $100.0**
  This center would accommodate users of assistive technologies and serve to educate the campus community regarding accessibility, equal access and universal design concepts. The center would be equipped with assistive technologies such as Braille readers and keyboards, screen reader workstations, document conversion software, magnification tools, enlarged displays, tactile printers, keyboard/mouse alternatives, eye tracking hardware, and sip and puff devices. In addition to the equipment listed above, the Center would include an empathy lab equipped with a variety of simulations, which would help users understand barriers to universal access. These tools and simulations would be available for faculty and course designers to develop and test courses and services. The entire campus community would benefit from such a space through the opportunities for education. Institutional compliance issues would also be addressed through the easy access to this technology.

2. Deferred Instructional Classroom Technology Upgrades: $2,000.0
   This request will upgrade the instructional technology in 82 learning spaces and classrooms throughout the UAF campuses that have not been upgraded since 2014. Instructional technologies include presentation, video conferencing, lecture capture, streaming and mobile technologies. These technology upgrades will modernize both distance and face-to-face learning experiences by making classrooms Zoom web conferencing compatible. Additional funds would be used to update rooms circa 2015-present, to be Zoom web conferencing compatible.

**UAS Smart Classrooms Juneau Campus**

**FY24-25 (GF: $100.0, NGF: $0.0, Total: $100.0)**

This project will promote student enrollment through publicizing of modern buildings and facilities. Smart/Flex classrooms have shown to improve student learning, foster collaboration among students, increase grades and student graduation rates. Movable desks, chairs, smart boards and displays allows the professor to arrange the classroom to best compliment the subject matter. Professors can set up a traditional front facing presentation classroom or they can reconfigure their classroom several times in a single class period to create different learning experiences. It allows professors and students to collaborate on a more engaging level that helps students learn and remember.

Video conferencing, lecture capture, linked-in monitors, streaming and mobile technologies enable to bring distance learning students into the classroom. Not only can they see and hear the professor and class, they can ask questions, see and collaborate with other classmates.

Classrooms no longer need to subject specific, with Smart/Flex classrooms the room can be set up for any subject. This increases the usability of the building space and allows for the reduction in overall building space and associated costs.

This project will convert one existing classroom into a Smart/Flex classroom.
## University of Alaska

### FY23 Facilities Maintenance Budget

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<td>32</td>
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<td>6.1%</td>
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<td>1,700.0</td>
<td>200.0</td>
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<tr>
<td><strong>UA System Office (1)</strong></td>
<td>11</td>
<td>47.8</td>
<td>244,880</td>
<td>110,336.8</td>
<td>6,662.7</td>
<td>0.5</td>
<td>0.4%</td>
<td>300.0 0.3%</td>
<td>300.0</td>
<td>200.0</td>
</tr>
<tr>
<td><strong>UASO Total</strong></td>
<td>11</td>
<td>47.8</td>
<td>244,880</td>
<td>110,336.8</td>
<td>6,662.7</td>
<td>0.5</td>
<td>0.4%</td>
<td>300.0 0.3%</td>
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<td>60,000.0 1.2%</td>
<td>25,600.0</td>
<td>3,440.0</td>
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</table>

1. Statewide facility values include Land Management properties; distribution % reduced at SW to allow a larger portion of the funding to be distributed to campuses.
2. The index (distribution) is based on the individual building age times the adjusted value by campus divided by a billion.
University of Alaska  
Capital Budget Request vs. State Appropriation  
FY13-FY22  
(in thousands of $)

<table>
<thead>
<tr>
<th>Request</th>
<th>Renewal and Repurposing</th>
<th>Add/Expand</th>
<th>New Facilities</th>
<th>Equipment</th>
<th>Other ¹</th>
<th>Total</th>
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<tbody>
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<td>FY13</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>FY20</td>
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<td></td>
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<tr>
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<td>32,881.4</td>
<td>82,881.4</td>
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<tr>
<td>Total</td>
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<td>10 yr. Avg.</td>
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<td>9,048.1</td>
<td>133,113.1</td>
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</table>

<table>
<thead>
<tr>
<th>Request</th>
<th>Renewal and Repurposing ²</th>
<th>Add/Expand</th>
<th>New Facilities</th>
<th>Equipment</th>
<th>Other ¹</th>
<th>Total</th>
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<td>37,950.0</td>
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<tr>
<td>FY18</td>
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<tr>
<td>FY19</td>
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<tr>
<td>FY20</td>
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<tr>
<td>FY22</td>
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<tr>
<td>Total</td>
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<td>351,500.0</td>
<td>120.0</td>
<td></td>
<td>11,071.8</td>
<td>472,914.8</td>
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<tr>
<td>10 yr. Avg.</td>
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<td>1,107.2</td>
<td>47,291.5</td>
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</table>

1. Includes research, small business development center and other capital funding requests or appropriations.  
2. Funds reallocated from the state appropriated portion of the operating budget for: Strategic Investments (SI): FY17 - $10.0 million; FY18 - $5.0 million, and non-state; Natural Resource Funds (NRF): FY17 - $269.3 thousand; FY18 - $300.4 thousand.
*Funds reallocated from the state appropriated portion of the operating budget for Strategic Investments (SI): FY17 - $10.0 million; FY18 - $5.0 million, and non-state Natural Resource Funds (NRF): FY17 - $269.3 thousand; FY18 - $300.4 thousand.
# University of Alaska

## State Appropriation Summary by Category

**FY13-FY22**

(in thousands of $)

<table>
<thead>
<tr>
<th>Campus</th>
<th>Location</th>
<th>Renewal and Repurposing</th>
<th>Additions / Expansions</th>
<th>New Facilities</th>
<th>Equipment</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Anchorage Campus</td>
<td>Anchorage</td>
<td>32,083.8</td>
<td>119,200.0</td>
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<td>400.0</td>
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<td>Homer</td>
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<td>100.0</td>
<td>624.2</td>
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<td>500.0</td>
<td>4.5%</td>
<td>159,390.3</td>
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<td>10,300.0</td>
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<td>Chukchi Campus</td>
<td>Kotzebue</td>
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<td>Interior Alaska Campus</td>
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<td>57,841.2</td>
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<td>93.0%</td>
<td>296,441.2</td>
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<tr>
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<td>1.1%</td>
<td>120.0</td>
<td>271.8</td>
<td>15,869.3</td>
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<td>0.3%</td>
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<tr>
<td>UASO</td>
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<td>1,214.0</td>
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<td>1,214.0</td>
<td>0.3%</td>
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<tr>
<td>UA Grand Total</td>
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<td>110,223.0</td>
<td>351,500.0</td>
<td>100.0%</td>
<td>120.0</td>
<td>11,071.8</td>
<td>472,914.8</td>
</tr>
</tbody>
</table>

1. Includes research and other capital appropriations.
2. Funds reallocated from the state appropriated portion of the operating budget for: Strategic Investments (SI): FY17 - $10.0 million; FY18 - $5.0 million, and non-state; Natural Resource Funds (NRF): FY17 - $269.3 thousand; FY18 - $300.4 thousand.
State Appropriation Summary by Category FY13 - FY22
(in thousands of $)

- **New Facilities**: $351,500.0; 74.3%
- **Equipment**: $120.0; 0.0%
- **Other**: $11,071.8; 2.3%
- **Renewal and Repurposing**: $110,223.0; 23.3%

**New Facilities and Major Expansions**

**UAA**
- Engineering Building (FY11 - FY15) $123,200.0

**UAF**
- Engineering Building (FY11 - FY15) $73,946.7
- Heat & Power Plant Major Upgrade (FY15) $162,000.0

**UAS**
- Pugh Hall Dorm Addition (FY12 - FY13) $6,000.0

---

1. Includes research and other capital appropriations.
2. Funds reallocated from the state appropriated portion of the operating budget for: Strategic Investments (SI): FY17 - $10.0 million; FY18 - $5.0 million, and non-state; Natural Resource Funds (NRF): FY17 - $269.3 thousand; FY18 - $300.4 thousand.
3. Project total for state appropriations is listed even if a portion is outside the timeframe represented in the pie chart.