UAF Fairbanks Campus Building Interior & Systems Renewal (Bartlett/Moore student housing)

(GF: \$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 issue 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.

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 resealing. 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.

• 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 (exterior lighting)

(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 during 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 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 nontraditional 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.

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 Infromacast 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.

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 UAS facilities that are 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

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.

• 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.