

Deferred Maintenance/Renewal & Repurposing**FY2021 Request: \$50,000,000****Reference No: 62606****AP/AL:** Appropriation**Project Type:** Deferred Maintenance**Category:** University**Location:** Statewide**House District:** Statewide (HD 1-40)**Impact House District:** Statewide (HD 1-40)**Contact:** Michelle Rizk**Estimated Project Dates:** 07/01/2020 - 06/30/2025**Contact Phone:** (907)450-8191**Brief Summary and Statement of Need:**

The University of Alaska (UA) is responsible for maintaining facilities and infrastructure across the state. Many years of unfunded deferral of critical projects has increased the risk of building closure. This academic year alone, UAA has had two separate infrastructure failures requiring evacuation and rescheduling for over 60 class sections impacting campus operations. Similarly, UAF has had to close three floors of restrooms in Bartlett Hall to make emergency plumbing repairs. These unplanned closures cause significant hardship on student learning and are expensive.

Funding:	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	Total
1004 Gen Fund	\$50,000,000						\$50,000,000
Total:	\$50,000,000	\$0	\$0	\$0	\$0	\$0	\$50,000,000

☐ State Match Required
 ☐ One-Time Project
 ☐ Phased - new
 ☐ Phased - underway
 ☒ On-Going
 0% = Minimum State Match % Required
 ☐ Amendment
 ☐ Mental Health Bill

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Sec1 Ch3 SLA2019 P8 L31 SB19 \$5,000,000
 Sec1 Ch19 SLA2018 P11 L26 SB142 \$2,000,000
 Sec1 Ch1 SLA2017 P9 L21 SB23 \$5,000,000
 Sec1 Ch38 SLA2015 P17 L24 SB26 \$3,000,000
 Sec1 Ch16 SLA2013 P97 L24 SB18 \$30,000,000
 Sec1 Ch17 SLA2012 P152 L10 SB160 \$37,500,000
 Sec1 Ch5 SLA2011 P117 L30 SB46 \$2,000,000
 Sec1 Ch5 SLA2011 P118 L18 SB46 \$87,500,000
 Sec4 Ch43 SLA2010 P14 L18 SB230 \$37,500,000

The prior year funding history includes funding for the entire UA system.

Project Description/Justification:

UA has over 400 facilities totaling 8.1 million gross square feet, with an average age of 34 years, an inflation-adjusted value of \$4.2 billion, and a deferred maintenance/renewal & repurposing (DM/R&R) backlog in excess of \$1.2 billion. UA continues to be good stewards of these valuable assets, while exploring ways to reduce its facilities footprint and long-term operating costs. UA requests \$50 million in FY2021 for deferred maintenance/renewal & repurposing as follows:

University of Alaska
FY2021 Priority Deferred Maintenance (DM) and Renewal and Repurposing
(R&R) Projects
State Appropriations *(in thousands of \$)*

Project Name	DM & R&R
UAA Main Campus	
Campus Security & Safety	2,000.0
Regulatory Compliance, Safety Improvements, & Code Upgrades	2,000.0
Campus Building Interior & Systems Renewal	6,350.0
Campus Building Envelope & Roof Systems Renewal	2,350.0
Campus Exterior Infrastructure & Signage Renewal	500.0
UAA Main Campus Subtotal	13,200.0
UAA Community Campuses	
Price William Sound College Campus Renewal	377.7
Kodiak College Campus Renewal	611.7
Matanuska-Susitna College Campus Renewal	943.6
Kenai Peninsula College Campus Renewal	1,108.0
Kenai Peninsula College - Kachemak Bay Campus Renewal	59.0
UAA Community Campuses Subtotal	3,100.0
UAA Priority DM and R&R Total	16,300.0
Main Campus Additional DM/R&R Projects	470,081.9
Community Campuses Additional DM/R&R Projects	25,599.1
UAA DM and R&R Total	511,981.0
UAF Main Campus	
Fairbanks Campus Building Interior & Systems Renewal	13,425.0
Building Envelope & Roof Systems Renewal	3,795.0
Safety & Regulatory Compliance	6,040.0
Campus Infrastructure & Exterior Renewal	5,040.0
UAF Main Campus FY2020 Subtotal	28,300.0
UAF Community Campus	
Rural and Community Campus Renewal	2,200.0
UAF Community Campuses Subtotal	2,200.0
UAF Priority DM and R&R Total	30,500.0
Main Campus Additional DM/R&R Projects	677,279.0
Community Campuses Additional DM/R&R Projects	25,283.5
UAF DM and R&R Total	733,062.5
UAS Main & Community Campuses	
Novatney Roof Replacement	300.0
Ziegler Plaza Concrete Replacement	20.0

Deferred Maintenance/Renewal & Repurposing**FY2021 Request:****\$50,000,000****Reference No:****62606**

Sitka Replace Lighting Switches in Health Sciences Facilities	35.0
Pedestrian Guardrail Replacement - Phase 2	325.0
Sitka Study to Replace Hot Water Tank	8.0
Mourant HVAC System Upgrade	360.0
Paul Deck Mansards Replacement	100.0
Housing Lodge Fuel Tank Replacement	105.0
Technical Education Center Welding Lab Fire Alarm Replacement	75.0
Sitka Tech Lab Canopy Over Exit	75.0
Technical Education Center Replace Shop Compressor and Control Panel	65.0
Campus Housing Sidewalks Repair	100.0
Recreation Center Security Cameras	75.0
Paul Elevator Replacement	200.0
Mourant Sound System	120.0
Technical Education Center Security Upgrades, Cameras, Doors, Procedures	100.0
Recreation Center Exterior Lighting for Parking & Building	135.0
Hendrickson Annex Exterior Painting	40.0
Sitka Install Additional Exterior Security Cameras	30.0
Hendrickson Lower Level Entry Vestibule & Roof Installation	125.0
Technical Education Center Welding Lab HVAC System Upgrades	234.0
Recreation Center Concrete Repairs	10.0
Sitka Remove Dry Sprinkler Exhauster	8.0
Facilities Services Re-Configure Office Spaces	20.0
Campus Housing Drainage Improvements	100.0
Soboleff Annex Site Reclamation	40.0
Fine Arts Courtyard	1.0
Replace Shower Pans in Apartment Units	50.0
Recreation Center Replace Sliding Cantilever Gates with Vertical Swing Gates	44.0
UAS Campuses Priority DM and R&R Total	2,900.0
Campuses Additional DM/R&R Projects	19,146.8
UAS DM and R&R Total	22,046.8
Statewide	
Butrovich Lighting Upgrades	300.0
Statewide Priority DM and R&R Total	300.0
Additional DM/R&R Projects	5,773.2
Statewide DM and R&R Total	6,073.2
UA Priority DM and R&R Total	50,000.0
UA DM and R&R Total	1,273,163.5

UAA Main Campus**UAA Campus Security & Safety**

(GF: \$2,000.0, NGF: \$0.0, Total: \$2,000.0)

Concerns raised by faculty and staff based on the rise of active shooter incidents nationwide, prompted a review of the university's ability to secure buildings, classrooms, and other facilities manually or automatically in the event of any incident that would require persons on UAA campuses to shelter-in-place. Initial review of the level of effort involved to upgrade all room entrances with appropriate locking mechanisms and automation revealed a multi-year, multimillion-dollar effort. This project is developed to fully assess the level of effort, design a plan of execution, and implement the first increment of security measures for the highest priority facilities and/or spaces. Follow-on phases will be developed and identified based on the planning and design efforts of this project.

UAA Regulatory Compliance, Safety Improvements, & Code Upgrades

(GF: \$2,000.0, NGF: \$0.0, Total: \$2,000.0)

UAA requires significant and ongoing investment in existing buildings to maintain them for safe occupancy in compliance with regulation, code and safety improvements.

- **Arc Fault Requirements**
This project addresses OSHA NFPA 70E requirements for standoff distances, electrical upgrades, safety placards and personal protective equipment requirements (PPE). Failure to meet Arc-Flash requirements places individuals operating an electrical panel at risk to severe injury or death. This project provides required AKOSH compliance and it remedies critical electrical safety concerns.
- **Expired Exit Sign Replacement**
This project replaces and disposes of expired tritium exit signage across campus with LED exit signage.
- **Accessibility Improvements**
This project provides updates for ADA accessibility including replacing door hardware, ADA complaint resolution, restroom upgrades for accessibility and ADA signage.

UAA Campus Building Interior & Systems Renewal

(GF: \$6,350.0, NGF: \$0.0, Total: \$6,350.0)

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 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 vav boxes and upgrade the building automation system controls.

- **Consortium Library Old Core Mechanical Upgrades**
The original HVAC systems consist, for the most part, of equipment over 46 years old located within the four central building cores. The boilers, main supply/exhaust fan units, heating/cooling coils, galvanized piping and humidification systems have all reached the end of their useful life. Major component parts are no longer available for these units. Heating system piping and coils are filled with sedimentation. Control systems are no longer able to properly regulate air flow resulting in irregular temperatures and conditions within the building. The 2004

library addition contains newer HVAC systems with different control and delivery systems that have resulted in incompatibilities between the two systems and has affected the efficiencies of both systems.

- **Eugene Short Hall (ESH) Infrastructure Upgrades**
This project will complete building code and infrastructure replacements. New boilers, required exits elevator upgrades, updates to dispatch related to NFPA requirements. Eugene Short Hall houses the university policy department (UPD) and is central emergency response center for UAA main campus. Additionally, ESH has 11 classrooms that support academic mission critical needs. These facilities are in a state of failure and these renovations are necessary to improve reliability for UPD operations.
- **Professional Studies Building and Wendy Williamson Auditorium Infrastructure Upgrades**
This project would leverage a recent re-commissioning report with potential support of an ESCO in order to update building mechanical and electrical systems that are beyond their useful life and optimize the building systems that will remain.
- **Rasmussen Hall Infrastructure Upgrades**
This project will complete building code and infrastructure improvements. The elevators are consistently failing reducing operation, resulting in class cancellations, and restricting access to students with mobility concerns. Additionally, a number of mechanical systems throughout the facility require replacement.
- **Social Sciences Building Infrastructure Upgrades**
Social Sciences Building (SSB) was built in 1974 and used extensively for office, classroom and lab space, as well as the central information systems control center (IT services). It was originally built with a relocatable wall system that is no longer functional. This building will require extensive renovations to meet current operational, energy efficiency, code and safety requirements.

UAA Campus Building Envelope & Roof Systems Renewal

(GF: \$2,350.0, NGF: \$0.0, Total: \$2,350.0)

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.

- **Gordon Hartlieb Hall (GHH) Roof Replacement**
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. GHH houses several academic classes for CTC Welding and CAS Ceramics Lab. Additionally, GHH housing facilities support services, fleet maintenance, carpentry shop, grounds, shuttle, and IT services.
- **Arcade Bridge & Lounge Roof and Window Improvements**
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. Furthermore, this project will look to replace and upgrade the windows to increase R-Values and promote energy efficiency.

UAA Campus Exterior Infrastructure & Signage Renewal

(GF: \$500.0, NGF: \$0.0, Total: \$500.0)

The UAA campus is over 40 years old and many of the buried utilities, fire hydrants, waterlines, drainage infrastructure, roads, trails, sidewalks, parking areas, curbs and gutters are part of the original construction or have been impacted by construction, repair and renovation projects over the years. The buried piping is beyond its useful life which has resulted in increased failures primarily on west campus. This has resulted in water shutdowns, building closures, and sinkholes due to corrosion and piping failures. Additionally, the aged surfaces have resulted in uneven surfaces, lack of adequate sidewalks and other deficiencies that pose a safety hazard or are increasingly susceptible to additional damage. The safe, reliable and continued business function dictates need to upgrade and repair the infrastructure and surfaces to maintain a safe and effective environment for students, staff and the public. Additionally, this project improves the campus user experience by improving upon the wayfinding signage.

- **Storm Sewer Improvements**

This is a multiple phase project that has been underway for the last 4 summers. This is the final phase to replace degraded and failing storm drains on the west Anchorage campus. The camera scope study revealed immediate needs including partially collapsed lines, bottom corrosion failures and offsets that are leading to an increase in pipe failure and eventually roadway collapse. This area of campus has experienced 4 significant sinkholes in the past 6-7 years due to drain system failure, erosion and associated corrosion of (typically CMP) to complete failure. These have manifested as sink holes in turf near roadways, collapse of road surfaces, and failure of parking surfaces in the area of west campus. All of the situations expose our students, staff and campus visitors to a number of immediate dangers for both pedestrian and vehicular traffic.

Current assessment in three test areas has revealed several failure points including drain line failure and collapse as well as offsets leading to increased erosion and drain line failure. A collapse of any of the lines under roads ways and potentially in parking lots would cause a significant disruption to students and staff as well as presenting a significant hazard. The scope of work includes finalizing design, spot repair, slip lining and/or outright replacement of failed CMP with a more durable CPEP plastic drain line.

- **Water Supply Improvements**

This project addresses west campus water supply and aging infrastructure while simultaneously improving system reliability by installing water supply isolation valves. Currently, the system requires shut off of several west campus buildings when the system experiences critical failure.

UAA Community Campuses**UAA Prince William Sound College Campus Renewal**

(GF: \$377.7, NGF: \$0.0, Total: \$377.7)

- The Growden-Harrison building was originally built shortly after the 1964 earthquake as an elementary school and was added onto in a piecemeal fashion in the following years. This has resulted in aging mechanical, electrical, HVAC systems that are currently undersized for the facility and have included the use of asbestos containing materials. The piecemeal additions have resulted in draining and weathering problems that adversely impact the building envelope.
- **PWSC Student Housing Reroof (2 Units)**
The three student housing units were originally constructed in 1966 and completely renewed between 2008-2010. Roofing was not completed on two of three student housing units and these facilities are showing damage from ice damming and resultant leakage. The third building

roof was replaced, has a different orientation, and is not showing signs of damage or leakage. In 2014, a professional assessment was complete offering a number of options to rectify the problem. Most of the problem is attributed to the low slope (2:12), lack of correct ventilation, and lack of adequate insulation in the existing building roofs. The most appropriate and permanent solution, but most costly, is to build a 6:12 roof truss system over top of the existing roof and add insulation or potentially replace the roof from the wall top plate up, to include new trusses, decking, insulation and metal roofing appropriate for the heavy snow loads and long winters of Valdez. The third housing unit that was reroofed will likely need similar treatment to increase its roof pitch at the end of its useful life in 2030 unless it shows signs of damage earlier.

- PWSC Multipurpose Training Room Reconfiguration

This project is a renewal project to repurpose the space for increased flexibility. The project also upgrades critical deferred maintenance and replaces equipment that is no longer in service.

UAA Kodiak College Campus Renewal

(GF: \$611.7, NGF: \$0.0, Total: \$611.7)

The buildings on the Kodiak Campus were constructed in the early to mid-1970's. The original windows suffer from worn seals that cause air infiltration. The mechanical and electrical systems are in need of renewal to meet the increased student demand and increased use of new technology. Roofing repairs are required, specifically for the campus center. Parking lot lighting repair and upgrades are required. Improvements to layout and design will increase space efficiency and allow for replacement of worn and outdated fixed equipment.

UAA Matanuska-Susitna College Campus Renewal

(GF: \$943.6, NGF: \$0.0, Total: \$943.6)

This project will address campus-wide deferred maintenance issues and renewal and renovation requirements for the Mat-Su campus. The buildings on the Mat-Su campus are 15-40 years old and their roofs need to be replaced. With several of MSC's buildings reaching 35-40 years of age, it is prudent to plan for the replacement of building components during the next few years. Boilers systems in this region are an essential component. The boilers not already updated this summer range in age from 1979 to 1994. The boiler upgrades (with the oldest first) would allow for greater cost savings through energy efficiency as 80% efficiency boilers would be replaced with 95% efficiency boilers. The original doors and hardware are still in use across the campus with some units being over 40 years old and heavily used. As these units wear, energy leaks are created within the buildings which increases the cost of operation and wear on other systems, resulting in an unbalanced environment within the buildings. Additionally, the failure of the hardware increases safety and security risks for the university that can result in substantial liability. Technology advancements increase the energy efficiency and security of these units, which will reduce expenses for the university.

UAA Kenai Peninsula College Campus Renewal

(GF: \$1,108.0, NGF: \$0.0, Total: \$1,108.0)

The Kenai River Campus includes four buildings built between 1971 and 1983. Each building is of different quality having been constructed using different construction methods and materials, and energy efficiencies. The campus is spending too much money on utility costs due to the inefficiencies of the old buildings. With rapidly increasing utility costs, the energy savings realized by this renewal would be significant. The Mclane (KP101) additions were all constructed between 1972 and 1976 and the original air handling units are in place. The air handling equipment and associated duct work in these buildings cannot supply the quantities of air required by current mechanical standards. The heat

plant and air handling equipment for these facilities need to be replaced prior to a catastrophic failure results in and emergency replacement. The campus safety improvements on exterior walkways are required to maintain compliance with the Americans with Disabilities Act (ADA). This project addresses outdated security controls and monitoring systems.

UAA Kenai Peninsula College – Kachemak Bay Campus Renewal

(GF: \$59.0, NGF: \$0.0, Total: \$59.0)

A significant portion of the pioneer hall campus building (kb-101, 7,200 SQFT.) was originally built in 1988 as a post office. Critical needs include energy improvement LED upgrades, ADA access and safety improvements and security upgrades. These priorities improve student safety and regulatory compliance and lower energy usage. Additional needs include mechanical and electrical upgrades to shop classrooms to improve shop safety and code updates for HVAC requirements.

UAF Main Campus

UAF Fairbanks Campus Building Interior & Systems Renewal

(GF: \$13,425.0, NGF: \$0.0, Total: \$13,425.0)

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. The work 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. A few projects of urgent need include:

- **Fairbanks Campus Bartlett Hall Plumbing Replacement:** Bartlett Hall is the second largest dormitory, housing 320 UAF undergraduate and graduate students throughout the academic year. The sanitary sewer lines within the entire building are at risk of imminent total system failure, requiring UAF to close the hall with no notice should it fail. Over the last four years, plumbing supporting the restrooms has failed, leaving portions of the building without sanitation

facilities. The pipe has degraded over the life of the 50-year old building, leaving large holes in branch and main lines. The damage has led to leaks of raw sewage into the occupied building. The project will also address major code citations, provide ADA compliant facilities, and reduce maintenance and custodial of the half-century old fixtures and finishes. Work will consist of demolition of the eight floors of stacked restrooms back to structure, rebuilding the plumbing, electrical, and ventilation systems, and reconstructing compliant facilities on each floor.

- **Elvey Deferred Maintenance Phase I-C Annex:** 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 Alaska Satellite Facility, Alaska Earthquake Center, and Alaska Volcano Observatory, and multiple academic programs related to geophysics and atmospheric sciences. In the first phases of the renewal work, a small annex of the main building will be renovated. The area has accumulated a significant backlog of maintenance with the original finishes and equipment. Work will demolish all walls and ceilings, back to structure, upgrade the building for current seismic codes, and rebuild the space to current 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.
- **Bunnell ground level refresh:** The 60-year old Bunnell Building is highly utilized for academic programs, classrooms, and UAF Office of Information Technology. The ground level corridor is well traveled and the finishes are showing their extended age. The project will perform a complete refresh of dated and worn finishes in the main corridor. It will also replace corridor doors, ceilings/lights, upgrade electric and IT as needed. During the project, work will address two major code citations by renovating exit pathways of the two north stair towers to lead directly to outside and install fire doors at the elevator lobbies.
- **O'Neill Elevator Modernization:** The O'Neill West Passenger Elevator was manufactured by US Elevator in 1971. This elevator has never been modernized and US Elevator is no longer in business. The existing equipment is a motor/generator supplying DC power to a motor driven machine with an antiquated relay logic controller. Modernization and upgrades will include upgrades to all of the mechanical and electrical equipment, the elevator controls, and the elevator car finishes and doors.

UAF Building Envelope & Roof Systems Renewal

(GF: \$3,795.0, NGF: \$0.0, Total: \$3,795.0)

The hallmark of a sustainable building is a solid foundation underfoot and a dry envelope overhead. Building envelope elements such as roofs, entry doors, windows, and exterior cladding for selected buildings at UAF are in poor to failing condition. Systematic building envelope replacement and improvement is needed to prevent leaks, failures, and other disruptive damage to building assets and occupants. Renewal projects help prevent programmatic function interruptions from emergency repairs, lower on-going maintenance cost, and increase energy-efficiency through improved thermal and moisture protection. The work preserves existing assets for the continuation of program and mission delivery.

Projects within this category include roof repairs and replacements, doors, windows, vapor barriers, exterior painting, siding, weatherization, insulation, foundations, and other building envelope issues. High performance building envelopes are critical to protect a building's interior finishes and structural integrity, and increase energy efficiency. The roofing projects are an ongoing replacement of roofs that have reached the end of their useful and protective life. Many windows and exterior entry

storefronts are mostly original to the buildings on campus, with older construction technology and poor insulation values, or have deteriorated from constant high-volume use. Exterior door replacement work improves the ability to lock down buildings, enhancing safety and security of faculty, staff and students, improving ADA access and emergency egress. A few projects of urgent need include:

- **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, including design and purchase a new keying system, establish a robust key issue policy, and begin replacing doors and door hardware. Electronic locks are 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. The next phase of renewal will replace exterior doors and/or hardware at the Patty Center, Chapman Building, Lola Tilly Building, Elvey Building, and O'Neill Building. 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.
- **Constitution Hall Exterior Windows:** Constitution Hall is a highly visible historic facility located in the core of the campus, serving student support functions such as the post office, bookstore, Alumni Relations, and the Department of Equity and Compliance. Many features of the building, including the single pane windows, are original to the 1955 facility. The windows have very low insulation value, leak cold air, and are laden with lead paint and asbestos. Replacement windows will mimic the current look to maintain the historic perspective but provide tremendous improvements in performance. The degraded windows directly impact the University's ability to continue to preserve this asset not only for the historical context but, more importantly, to continue mission delivery to the students. Being a hub of support for students, the facility directly influences recruitment and retention of students. Replacing the windows will immediately improve the quality of life inside the facility, reduce energy usage, and remove potential hazards of asbestos and lead within the occupied spaces of the facility.

UAF Safety & Regulatory Compliance

(GF: \$6,040.0, NGF: \$0.0, Total: \$6,040.0)

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 our 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, 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. Regulatory compliance also requires the University to replace aging fuel tanks at remote sites across the state. A few projects of urgent need include:

- **Patty Pool Code Compliance:** The Patty Pool is used year-round by the UAF and greater Fairbanks community, as well as UAF's NCAA Swim Team. During a recent code review, UAF determined the pool needed two critical code upgrades and additional major renewal to remain in service. In the first phase of work, code issues will be addressed including adding a secondary fire exit and increasing the amount of fresh air supply into the natatorium. In a later phase, renewal of the pool's plumbing and finishes will be completed.
- **Campus Wide Fire Alarm Replacement for End of Life:** Approximately 30 fire alarm panels on the Fairbanks Campus 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 facilities scheduled for replacement are Gruening, Duckering, Rasmuson, and Bunnell.
- **Lab Ventilation Air Controller Replacement:** Specialized lab ventilation is required to maintain a specific amount of exhaust air to protect lab users from hazardous chemicals. Many of the lab controllers built by Phoenix Controls have reached the end of their useful life and must be replaced to keep the labs code compliant. The buildings include Duckering, Reichardt, Arctic Health, Fine Arts, and the Biological Diagnostics and Research Building.

UAF Campus Infrastructure & Exterior Renewal

(GF: \$5,040.0, NGF: \$0.0, Total: \$5,040.0)

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 campus infrastructure request includes high priority sewer line replacements which are critical to maintaining healthy and sanitary student housing, classrooms, laboratories, and other campus facilities. The work will address major code deficiencies and reduce maintenance callouts for these existing aging systems. The request also includes critical district heat line repairs where piping has reached the end of its useful life and recent damage is causing a reduction in system capacity. A final phase of electrical line replacement which improves reliability to several campus facilities is also included in this request. The improvements include repairs to pedestrian access paths by targeted replacement of failing walkways, ADA ramps, and stairs. A few projects of urgent need include:

- **Fairbanks Campus Wide Sanitary and Storm Sewer Upgrades Hess to North Chandalar, Whittaker (Fire Station) and Wickersham:** The existing sanitary sewer line between Hess Village family housing and the main sewer line on the east side of campus has severely degraded and failed multiple times in the last three years. The existing system consists of a large lift station that requires substantial annual repairs and multiple different types of pipe, including wood stave. The project will install a new gravity sewer main from the large housing complex to an existing main line on the east side of campus. In addition, construction work will also disconnect storm drains from the sanitary sewer at the Whittaker Building and Wickersham Hall to address code citations, reduce utility cost, and meet the requirements of the local utility.
- **West Ridge District Chilled Water:** Five major research and teaching buildings and the University of Alaska Office of Information Technology Data Center (which serves all of UA's IT

needs as well as State of Alaska emergency response functions) utilize approximately 15 percent of campus power for conditioning spaces and data equipment rooms. To eliminate this exorbitant quantity of electrical use and reduce campus operating cost significantly, the buildings must be connected to an existing district chiller water loop fed from an existing steam absorption chiller at the Murie Life Sciences Center. Initial funding will complete the design with construction funding requested in FY22.

- **Campus Wide Domestic Water: Repair and Stabilize Water Line Couplings:** A major portion of UAF's domestic and fire water lines have exceeded their useful life and are beginning to fail. A major failure of a coupling on a main water line in 2017 caused extensive damage in the Rasmuson Library. There are approximately 200 locations with similar couplings that are at risk of failure.
- **Campus Wide Pedestrian Pathways:** Replace broken, non-compliant stairs, sidewalks, and curbs/gutters to reduce slips and trips and improve pedestrian mobility. Work includes small areas around campus including North Arctic Health Building, Wood Center Bus Stop Stairs (South and East), Bunnell Northwest Entry, Museum Drop-Off, Irving 1 ADA Entrance.

UAF Community Campuses

UAF Rural and Community Campus Renewal

(GF: \$2,200.0, NGF: \$0.0, Total: \$2,200.0)

UAF's College of Rural and Community Development 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. Projects of urgent need include:

- **CRCD Fire Alarm Replacement for End of Life:** Approximately ten 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 facilities scheduled for replacement are Margaret Wood Building, Sackett Hall, and the Yup'ik Museum, Library, and Cultural Center.
- **Bristol Bay Applied Sciences Building ADA and Drainage Improvements:** The Applied Sciences building does not have a code compliant ADA entrance. In addition, the building crawlspace occasionally floods due to subsurface water. This project will install code compliant sidewalks, ramps and handrails leading to the building entrance. It will also improve the drainage around the building and install wet wells to reduce the frequency of the crawlspace flooding.

UAS Main & Community Campuses**UAS Novatney Roof Replacement**

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

The Novatney building roofing system has reached the end of its useful life and needs to be replaced. This project will replace the existing roof system with a new EPDM roof system with a 40-year life. If the roof is replaced before it substantially fails, the work can be completed without disrupting the programs in the building.

UAS Admissions, Registrar, Financial Aid, Student Accounts, Vice Chancellor of Enrollment Management and Student Affairs are all housed in the Novatney Building. All of these UAS programs would be adversely impacted if the roof system fails and the building could experience substantial damage to the interior if the roofing system fails. Design for this project is complete and can be bid and constructed during this fiscal year. UAS has already received \$200,000 from FY20 DM capitol appropriation. This project needs the remaining \$300,000 to complete funding and bid the project.

UAS Ziegler Plaza Concrete Replacement

(GF: \$20.0, NGF: \$0.0, Total: \$20.0)

The concrete sidewalks and pathways in the plaza area in front of the Ziegler building have started to fall apart making the walking surface rough and uneven. This presents slip and trip safety hazards to students, staff and faculty entering the building. This project removes and replaces the concrete walkways and can be bid and constructed in FY21.

UAS Sitka Replace Lighting Switches in Health Sciences Facilities

(GF: \$35.0, NGF: \$0.0, Total: \$35.0)

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 FY21.

UAS Pedestrian Guardrail Replacement - Phase 2

(GF: \$325.0, NGF: \$0.0, Total: \$325.0)

Existing pedestrian guardrails along the outside second story walkways fronting Auke Lake are made from wood, are expensive to paint, have a large flat top that is always covered in bird droppings and the openings do not meet current building codes. This project will install new railing designed to meet current safety codes to improve the safety of UAS students, staff and faculty. They will be constructed of stainless steel requiring much lower maintenance costs. Phase 1 replaced about half of the existing railings in 2018. Many of the design details can be re-used from Phase I allowing the project to be designed and constructed in the current fiscal year.

UAS Sitka Study to Replace Hot Water Tank

(GF: \$8.0, NGF: \$0.0, Total: \$8.0)

The current hot water tank is not adequate to provide hot water to campus facilities. This study will provide information and cost for replacing the hot water tank.

UAS Maurant HVAC System Upgrade

(GF: \$360.0, NGF: \$0.0, Total: \$360.0)

Maurant building / kitchen has a history of poor ventilation and staff trying to compensate for it by opening doors or windows and overtaxing existing mechanical systems. Mechanical design consultant

performed a condition assessment on the system and found the fry grill HVAC grease trap is not working properly and needs to be replaced. This project will replace worn and inadequate HVAC equipment as recommended by the consultant's evaluation. This project can be designed and constructed in FY21.

UAS Paul Deck Mansards Replacement

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

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 FY21.

UAS Housing Lodge Fuel Tank Replacement

(GF: \$105.0, NGF: \$0.0, Total: \$105.0)

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. 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 FY21.

UAS Technical Education Center Welding Lab Fire Alarm Panel Replacement

(GF: \$75.0, NGF: \$0.0, Total: \$75.0)

Technical Education Center 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 and can be bid and constructed in FY21.

UAS Sitka Tech Lab Canopy Over Exit

(GF: \$75.0, NGF: \$0.0, Total: \$75.0)

Snow sliding off the roof falls in front of the 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. This project can be bid and constructed in FY21.

UAS Technical Education Center Replace Shop Compressor and Control Panel

(GF: \$65.0, NGF: \$0.0, Total: \$65.0)

The existing air compressor is original equipment from 1983, is past its expected life span and has been experiencing numerous failures in recent years. The compressor is also oversized for the current needs of the shop. This project will replace the air compressor with a modern screw drive compressor that will be smaller, quieter and more efficient. This project can be designed, bid and constructed in FY21.

UAS Campus Housing Sidewalk Repair

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

Many of the sidewalks around housing are deteriorating making an un-even walking surface. This leads to the buildup of ice on the sidewalk that can't be scraped off and creates a slipping and tripping

safety hazard. This project will remove and replace damaged sidewalks. It will also install a sidewalk/stairway to the North parking lot where students have worn a path in the landscaping while going to the parking lot. This project can be designed, bid and encumbered in FY21. Construction will start in FY21 and extend into FY22.

UAS Recreation Center Security Cameras

(GF: \$75.0, NGF: \$0.0, Total: \$75.0)

Currently there are no security cameras at the UAS Recreation Center / Army National Guard Readiness Center.

In today's changing environment, security cameras are needed. This project will add cameras inside the major hallways and gym and in the outside parking lots. Funding for this project will be split with the Army National Guard according to the current use agreement. This project can be designed, bid and constructed in FY21.

UAS Paul Elevator Replacement

(GF: \$200.0, NGF: \$0.0, Total: \$200.0)

The elevator in the Paul building is 47 years old, the manufacturer no longer makes replacement parts and needs to be replaced. The elevator has been out of service for extended periods over the past few years. This creates a hardship on students, staff and faculty that have mobility challenges. This project will replace the existing elevator. This project can be designed, bid and encumbered in FY21. Construction can start in FY21 and then completed in FY22.

UAS Maurant Sound System

(GF: \$120.0, NGF: \$0.0, Total: \$120.0)

The acoustics in the Maurant 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 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 FY21.

UAS Technical Education Center Security Upgrades, Cameras, Doors, Procedures

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

Security at the Technical Education Center (TEC) is challenging due to multiple building entrances that are out of normal view of staff, open space of the shop areas and the transient population of the down town area. This has resulted in tools disappearing from shop, unauthorized access to building and safety concerns expressed by staff.

UAS's Emergency Manager has a background in building security and conducted a survey of TEC and has made several recommendations to improve security. This project will implement most of these recommendations including security cameras, proxy card door locks, changes building access routes and tightening of staff and faculty daily security procedures. This project can be designed, bid and constructed in FY21.

UAS Recreation Center Exterior Lighting for Parking & Building

(GF: \$135.0, NGF: \$0.0, Total: \$135.0)

The existing lighting system is using old technology and is not evenly distributed across the site. This creates shadows and bright spots making it difficult to see walking surfaces, leading to trips and falls.

The existing light fixtures placed along the walkway are of a poor quality and require a lot of time and

expense to keep operating. This project will replace all of the exterior lights with new LED lighting system which will reduce power costs and increase safety of students, staff and faculty. Funding for this project will be split with the Army National Guard according to the current use agreement. This project can be designed, bid and constructed in FY21.

UAS Hendrickson Annex Exterior Painting

(GF: \$40.0, NGF: \$0.0, Total: \$40.0)

The exterior paint on the Hendrickson annex has reached the end of its standard life span and is no longer providing the necessary protection of the building siding material. This project will paint the building.

UAS Sitka Install Additional Exterior Security Cameras

(GF: \$30.0, NGF: \$0.0, Total: \$30.0)

In today's changing environment, security cameras are expected by students, staff and faculty to cover main areas of campus. Cameras are important in helping to deter crime and gather evidence for crimes that are committed. This project will add cameras inside the building entrances and parking lot. This project can be designed, bid and constructed in FY21.

UAS Hendrickson Lower Level Entry Vestibule & Roof Installation

(GF: \$125.0, NGF: \$0.0, Total: \$125.0)

This project will add an entry vestibule to the existing lower entrance door to the Hendrickson building. This will improve the thermal efficiency of the building and lower heating costs. This project can be designed, bid and constructed in FY21.

UAS Technical Education Center Welding Lab HVAC System Upgrades

(GF: \$234.0, NGF: \$0.0, Total: \$234.0)

The existing HVAC system in the welding areas is an old type system. New welding shops use a different style of system that is better at keeping fumes away from the welder. This project would replace the existing welding ventilation system with a new modern system.

UAS Recreation Center Concrete Repairs

(GF: \$10.0, NGF: \$0.0, Total: \$10.0)

There are several sections of concrete sidewalk that have cracked and settled creating a slipping/tripping hazard.

This project will repair the cracks with a filler and topcoat surfacing.

UAS Sitka Remove Dry Sprinkler Exhauster

(GF: \$8.0, NGF: \$0.0, Total: \$8.0)

The existing dry sprinkler exhauster is obsolete and requires substantial time and money to maintain. This project will replace the existing piece of equipment with a new modern one that requires little to no maintenance.

UAS Facilities Services Re-Configure Office Spaces

(GF: \$20.0, NGF: \$0.0, Total: \$20.0)

Facilities Services building is an old house and not laid out efficiently for office spaces. This project would do some minor relocation of walls to make better use of the existing space and provide the opportunity to consolidate space in other buildings.

UAS Campus Housing Drainage Improvements

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

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 FY21.

UAS Soboleff Annex Site Reclamation

(GF: \$40.0, NGF: \$0.0, Total: \$40.0)

The Soboleff Annex was removed fall 2018 leaving a gravel pad. This project will temporarily reclaimed so it fits into the campus until a permanent use for the area is identified. The project will include curbs, gutters, sidewalks and landscaping features.

UAS Fine Arts Courtyard

(GF: \$1.0, NGF: \$0.0, Total: \$1.0)

Removal of the Soboleff annex opened up a space that the Master Plan recommended as a Fine Arts Courtyard. This project will hire a design consultant to come up with 3 options for transforming this area into a Fine Arts Courtyard. This portion of the project can be completed in FY21.

UAS Replace Shower Pans in Apartment Units

(GF: \$50.0, NGF: \$0.0, Total: \$50.0)

The shower pans have been a problem in the UAS apartment units for some time. They frequently leak causing damage to floors and lower ceilings. When the leak is slow, it creates wood rot that requires structural repairs. This project will replace shower pans with new ones that have better sealing qualities. This project can be designed, bid and constructed in FY21.

UAS Recreation Center Replace Sliding Cantilever Gates with Vertical Swing Gates

(GF: \$44.0, NGF: \$0.0, Total: \$44.0)

Existing sliding cantilever gates get jammed up with snow and ice frequently during cold weather. This creates maintenance calls and prevents people from entering or exiting the secured parking lot. This project will replace the sliding gates with Vertical swing gates that have proven to work well at the Juneau Airport. This project can be designed, bid and constructed in FY21.

Statewide**SWS Butrovich Lighting Upgrades**

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

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.

Lighting upgrades, including Lutron controls and re-ballast parabolic lighting fixtures, are needed in the whole building - Approx. 800 fixtures. Ballast are at end of life. Replace artwork lighting fixtures with LEDs.