UNIVERSITY of ALASKA

Many Traditions One Alaska

Proposed FY2017 Capital Budget and 10-Year Capital Improvement Plan

Board of Regents
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University of Alaska
Proposed FY2017 Capital Budget Request and
10-Year Capital Improvement Plan
Introduction

Presented within are the proposed FY2017 Capital Budget Request and the 10-Year Capital Improvement Plan. The goal of the Board of Regents' University of Alaska FY2017-FY2026 Capital Improvement Plan (CIP) is to guide decision making that ensures the necessary facilities, equipment, and infrastructure are in place to support the academic direction of the university system as prescribed in the UA Academic Master Plan, and supports the continuous improvement philosophy found in Shaping Alaska's Future. The extended capital forecast also permits consideration of the associated future annual operating costs that may be incurred.

The capital budget presents the top priority projects for FY2017 and the short-, mid-, and long-term capital investment goals consistent with the Campus Master Plans. The top priority projects call for state investment of $134.8 million. Requests include funding to complete the UAF Engineering Facility and Deferred Maintenance (DM)/ Renewal and Repurposing (R&R). The Proposed FY2017 Capital Budget Request is summarized below.

- Funding is requested to complete the UAF Engineering Facility under construction on the Fairbanks campus. This project upgrades UAF's engineering facilities to support the Fairbanks Campus in its efforts to graduate more engineering students. The construction of a new UAF Engineering Facility will provide an additional 120,000 gross square feet (gsf) located between the Duckering Building and the Bunnell Building.

- The State's prior funding commitments to address the deferred maintenance (DM) backlog resulted in, unquestionably, one of the single most important capital investments the state has made in UA and across the state. UA requests $50.0 million in FY2017 for deferred maintenance funding to continue the momentum the past six years has created and $50 million annual renewal and repurposing (R&R) sustainment funding to keep up with the current facility maintenance needs. The highest priority DM/R&R projects at the main campuses are the Building Envelope and Roof Systems Renewal in Anchorage, Main Waste Line Repairs in Fairbanks, and the Lakeside Access Improvements in Juneau.

- 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.

University of Alaska
Proposed FY2017 Capital Budget Request Summary
(in thousands of $)

	State Approp.	Non-State Funding	Total
New Starts/Continuation			
UAF Engineering Facility Completion (including ACEP Office Infill)	34,800.0	5,000.0	39,800.0
Facilities Deferred Maintenance (DM) / Renewal & Repurposing (R&R)	50,000.0		50,000.0
UAA Main Campus	*12,772.3*		*12,772.3*
UAA Community Campuses	*2,953.1*		*2,953.1*
UAF Main Campus	*28,125.6*		*28,125.6*
UAF Community Campuses	*2,119.8*		*2,119.8*
UAS Main & Community Campuses	*2,439.0*		*2,439.0*
SW Statewide	*1,590.2*		*1,590.2*
Annual Renewal & Repurposing Sustainment	50,000.0		50,000.0
Proposed FY2017 Capital Budget	**134,800.0**	**5,000.0**	**139,800.0**

University of Alaska Proposed 10-Year Capital Improvement Plan (in thousands of $)

	FY2017			State Appropriations		
	State Approp.	Non-State Funding	Total	Short-Term FY18-FY19	Mid-Term FY20-FY21	Long-Term FY22-FY26
UAF Engineering Facility Completion (including ACEP Office Infill)	34,800.0	5,000.0	39,800.0			
Facilities Deferred Maintenance (DM) / Renewal & Repurposing (R&R)	50,000.0		50,000.0	200,000.0	200,000.0	
Annual Renewal & Repurposing Sustainment	50,000.0		50,000.0	100,000.0	100,000.0	250,000.0
New Starts/Continuation						
Academic Facilities						
UAF University Fire Department (UFD) and Emergency Services & Management: Facility Replacement / Community & Technical College (CTC) Emergency Services Training Center				33,250.0		
UAF Troth Yeddha /Alaska Native Studies Building ($15M non-state)					10,000.0	
UAF Kuskokwim Campus Consortium Learning Center					7,200.0	
UAS Center for Mine Training Portal					1,500.0	
UAA Health Sciences Phase II Building and Parking Structure					48,000.0	93,500.0
UAA Alaska Native Art and Culture Building ($4.5 non-state)						
UAA Kodiak Career & Technical Education Center					2,430.0	21,870.0
UAA College of Education Reconfiguration/Addition and PSB Renovation					5,000.0	45,000.0
UAA Cuddy Hall Expansion & Renewal					2,100.0	21,100.0
UAA KPC Kachemak Bay Campus Library/Computer Addition						1,500.0
UAA PWSC Computer Classroom Addition						1,600.0
UAA PWSC Lecture Hall / Workforce Development Center						9,000.0
UAA KPC Kenai River Campus Cultural Arts and Research Center ($12.5M non-state)						12,500.0
UAA PWSC Outdoor Recreation Leadership Center						3,000.0
UAA Kodiak Longhouse						8,600.0
UAA KPC Kachemak Bay Campus Technical Career Center						7,200.0
UAF Chukchi Campus Consortium Learning Center						9,000.0
UAS Auke Lake Field House						11,500.0
UAS Physical Science Addition						12,800.0
UAS Auke Lake Cultural Center						27,500.0
Research Facilities						
UAF West Ridge Research Building #2						100,000.0
UAS Natural Science Research Lab Site Development						500.0
Student Life (Housing), Support, and Other Facilities						
UAS Student Commons ($10M non-state)				10,000.0		
UAF P3 Campus Housing Project ($65M non-state)					6,500.0	
UAA Community Arena and Recreational Facility						120,000.0
UAA Student Support Services and Student Union Building						172,000.0
UAA Student Housing						5,000.0

University of Alaska Proposed 10-Year Capital Improvement Plan (in thousands of $)

	FY2017			State Appropriations		
	State Approp.	Non-State Funding	Total	Short-Term FY18-FY19	Mid-Term FY20-FY21	Long-Term FY22-FY26
Infrastructure						
UAA Master Plan Circulation Improvements				2,000.0	4,000.0	
SW MAPTS Kenai Ground Water Contamination Mitigation				2,000.0		
UAA Mat-Su Roads, Circulation, & Parking Improvements				2,000.0		
UAA Kodiak Entrance Road Realignment and Exterior Lighting				500.0	5,000.0	
UAA Emergency Infrastructure Repair/Replacement						2,000.0
UAA KPC City of Soldotna J/V Water System Loop Connection						2,000.0
UAF Core Campus Parking Garage ($4.5M non-state)						4,500.0
Land, Property and Facilities Acquisitions						
UAA KPC Kachemak Bay Campus Property Acquisition				1,800.0		
UAF Northwest Campus Realignment				380.0		
UAS Facilities Services Physical Plant Replacement					2,430.0	6,690.0
UAA Adjacent Land and Property Acquisitions					2,000.0	
UAA Warehouse and Support Facility					2,000.0	
UAA Kenai River Campus Property Acquisition						2,235.0
Research for Alaska						
UAF Rapid Warning Development: Earthquake & Tsunami Safety (Earthscope) ($8.5M non-state)				5,000.0		
UAF Critical Mineral Resources Research Center ($2.0M non-state)				2,000.0		
UAF Revitalizing Alaska Native Languages ($.5M non-state)					500.0	
Academic Equipment						
UAA College of Engineering Materials Testing Lab Upgrades					600.0	
UAA College of Engineering Terrestrial Laser					84.2	
UAF Classroom Instructional and eLearning Technology					2,000.0	
	134,800.0	**5,000.0**	**139,800.0**	**358,930.0**	**401,344.2**	**950,595.0**

FY2017 Capital Budget Requests

UAF Engineering Facility Completion (including ACEP Office Infill)

FY17 (GF: $34,800.0, NGF: $5,000.0, Total: $39,800.0)

This request represents the amount necessary to complete the new UAF engineering facility. The UAF campus is the home of the College of Engineering and Mines (CEM) and the Institute of Northern Engineering (INE). CEM and INE are the primary centers for engineering education and research in Alaska today. In Fall of 2014, UAF had 68 percent of the undergraduate engineering students, above the pre-major level, enrolled in the UA system. CEM and INE additionally generated over $11 million in grant-funded research in FY15.

The Duckering Building on the Fairbanks campus is the main facility that supports the engineering programs. The Duckering building as documented by the UA Engineering Plan 2010 is too small and the facilities cannot fully support the needs of modern engineering education and research.

The state provided incremental funding for this project in FY11 through FY15 leaving an unfunded balance from the original budget of $28.3 million dollars. Delayed funding has caused a bifurcation in the scope of work that does not follow the normal schedule of construction activities for such a building. Delayed funding also means the opening of the building is delayed until at least spring semester 2018. Because the earliest possible completion date is 30 months beyond the original date, the FY17 request is $34.8 million dollars; the increase will cover inflation in material and labor costs, mobilization of contractors and a portion of the extended general conditions cost.

This project upgrades UAF's engineering facilities to support the Fairbanks Campus in its efforts to graduate more engineering students. The construction of a new UAF Engineering Facility will provide an additional 120,000 gross square feet (gsf) located between the Duckering Building and the Bunnell Building. The new UAF Engineering Facility design provides an efficient solution to the space and functional deficits recognized in the existing Duckering Building. The new facility creates an environment that enhances interaction among the students, professors and researchers. The modern building improves indoor environment and building systems and student success and retention are enhanced through a visible and interactive learning environment (engineering on display), day lighting of common, learning, and research spaces, improved air quality, student interaction and learning spaces in common areas and integrated engineering research and instruction.

UAF will complete the shelled space on the fourth floor of the UAF Engineering Facility to provide research labs, offices, and support space for the Alaska Center for Energy and Power (ACEP). The space will also have collaboration areas, allowing for a more integrated research approach with external partners. The completion of this project, in combination with the multi-bay research building constructed in 2011-2012, ACEP will have the physical space necessary to pursue its mission. UAF plans to complete the space on the fourth floor with private funding; UAF is seeking receipt authority for this purpose.

Facilities Deferred Maintenance (DM) and Renewal and Repurposing (R&R), and Annual Renewal & Repurposing Sustainment
FY17 (GF: $100,000.0, NGF: $0.0, Total: $100,000.0)
FY18-FY26 (GF: $850,000.0, NGF: $0.0, Total: $850,000.0)
The State's prior funding commitments to address the deferred maintenance (DM) backlog resulted in, unquestionably, one of the single most important capital investments the state has made in UA and across the state. UA requests $50.0 million in FY2017 for deferred maintenance funding to continue the momentum the past six years has created and $50 million annual renewal and repurposing sustainment funding to keep up with the current facility maintenance needs. The highest priority DM/R&R projects at the main campuses are the Building Envelope and Roof Systems Renewal in Anchorage, Main Waste Line Repairs in Fairbanks, and the Lakeside Access Improvements in Juneau.

10-Year Capital Improvement Plan Projects (FY18-FY26)

Academic Facilities

UAF University Fire Department (UFD) and Emergency Services & Management: Facility Replacement / Community & Technical College (CTC) Emergency Services Training Center
FY18-FY19 (GF: $33,250.0, NGF: $0.0, Total: $33,250.0)
The University Fire Department is the only student firefighter program of its kind in the country. Student firefighters are treated as full-time career firefighters and receive hands-on training as firefighters, EMTs, apparatus drivers, and public educators. The department provides fire and rescue services and public education to approximately 22,000 people within a 26-square-mile area. Critical in nature, the current facility fails to meet current seismic building codes and is in need of replacement, and an expanded facility is required to meet the increasing demand placed on its emergency services due to increasing call volume and population.

UAF Troth Yeddha /Alaska Native Studies Building
FY20-FY21 (GF: $10,000.0, NGF: $15,000.0, Total: $25,000.0)
The cultural heritage of the Alaska Native population is as vast and varied as the state itself. Encompassing 11 native cultural groups with over 20 spoken languages, the cultures are diverse and distinct. But each shares a common vision of community, respect for the land, and a desire to embrace modern culture without losing their defining traditions and heritage.

For many years, a place to commemorate and acknowledge Native Alaskan peoples has been envisioned at the University of Alaska Fairbanks (UAF). Moreover, the university is attended by an increasing numbers of native students who have continually expressed interest in having a touchstone place on campus that is reflective of their peoples' culture and traditions. The College of Rural and Community Development, as well as Interior Alaska Campus has steadily backed the concept of a location for gathering, reflection and cultural expression. Troth Yeddha' is that place. UAF requests capital appropriation support for approximately 40 percent of this project and is actively engaged in a fundraising campaign for the remaining and greater portion.

UAF Kuskokwim Campus Consortium Learning Center
FY20-FY21 (GF: $7,200.0, NGF: $0.0, Total: $7,200.0)
The Kuskokwim Campus Consortium Learning Center will provide access to information, resources, and services to all members of the Bethel community. The new learning center will allow access to the entire collection along with improved seating and study areas for students and area residents.

UAS Center for Mine Training Portal
FY20-FY21 (GF: $1,500.0, NGF: $0.0, Total: $1,500.0)
A new hands-on mine training portal in Juneau will complement existing facilities at the UAS Center for Mine Training, located at the UAS Technical Education Center in downtown Juneau. The proposed portal site, evaluated favorably by DOWL Engineers, is an existing quarry near Lemon Creek on lands owned by the City and Borough of Juneau. It has easy year-round access on an industrial road and yet it is in close proximity to available city resources.

The intent of the mine training portal is to meet identified needs of employers in Southeast Alaska for entry-level mine training that builds a local workforce. More underground mining activity is expected in Southeast Alaska and there is strong support for training that is close to home for the region's residents. Previous hands-on training in Juneau took place at the historic A-J Mine, but it has access issues in winter and other challenges. The Lemon Creek portal site provides ready year-round access to hands-on training opportunities.

UAS has enjoyed a strong working relationship with the Greens Creek/HECLA mine on Admiralty Island and with Coeur/Kensington Mine north of Juneau. Both have made significant investments in UAS scholarships and programs designed to build a local and regional workforce. UAS now offers a mine mechanic training program, funded by HECLA, that includes hands-on training, job shadowing on the mine site, and good possibilities for motivated graduates. UAS and MAPTS offer MSHW training for local miners and contractors who work on nearby mine sites.

Building a skilled and reliable local workforce requires proper training facilities to adequately train underground miners and mechanics. Adding the hands-on mine training portal to the existing Center for Mine Training classroom spaces and mine training simulator will enable UAS to make a meaningful contribution to building that skilled workforce for current and future mines.

UAA Health Sciences Phase II Building and Parking Structure
FY20-FY21 (GF: $48,000.0, NGF: $0.0, Total: $48,000.0)
FY22-FY26 (GF: $93,500.0, NGF: $0.0, Total: $93,500.0)
UAA is uniquely situated, surrounded by two of the largest hospital complexes in Alaska. As the U-Med District grows, partnerships with neighboring institutions continue to emerge. For the past decade, the University has been in discussion with neighboring institutions about partnering for joint-use health care training facilities. In addition, the demand for health care professionals throughout the state has resulted in a call for increased course and program offerings that UAA is unable to meet because of a lack of facilities.

In FY09, the Alaska State Legislature appropriated $46 million for the construction of the Health Sciences Building (HSB). This funding provided for construction of a 65,000 gsf building located on the land parcel UAA received in the 2005 land trade with Providence Hospital. During programming

for this building and for the College of Health programs, it was determined that this facility would become Phase I and would only be able to house the Nursing and WWAMI programs with some functions remaining in existing space on the West Campus. It was determined that approximately 99,500 additional gsf of space would be needed in Phase II to accommodate the additional programmatic needs of the Allied Health programs and other health science programs, as well as classroom and administrative space.

The UAA Health Sciences Sub-district Plan consists of nine acres of prime road-front real estate on Providence Drive and is contiguous with the main campus. The plan was approved by the BOR in February 2009 as an amendment to the 2004 UAA Master Plan and reaffirmed in the 2013 Campus Master Plan. It calls for several high profile buildings to be located on this site that will require a high volume of parking. In accordance with the UAA Master Plan, all future parking should be consolidated in parking structures to reduce the impact on developable land, provide better traffic control on the campus and reduce the negative visual impact of surface parking.

This project was identified 2004 UAA Master Plan and revalidated in the 2009 update and 2013 revision. It is in keeping with the UA Strategic Plan goals of student success, educational quality, faculty and staff strength, and responsiveness to state needs, technology and facility development.

UAA Alaska Native Art and Culture Building
FY18-FY19 (GF: $0.0, NGF: $4,500.0, Total: $4,500.0)
Alaska Native Art courses currently are held in a portable structure situated in a mid-campus parking lot. The portable structure is not large enough to meet the growing demands of students interested in taking Alaska Native Art courses, its infrastructure is inadequate to provide a full range of Native Art form instruction, and does not have indoor restrooms. Construction of a new Alaska Native Art and Culture Building will correct these deficiencies and will provide a dedicated, culturally-appropriate space for our Alaska Native community. The building will include an open studio for general art creation, several smaller areas for creation of specialized art work, a gallery area to display the art, a gathering space/classroom for Alaska Native students and elders to share indigenous knowledge among themselves and with the non-Alaska Native community alike.

This Capital Request is for Receipt Authority in the amount of $4.5 million to design and construct about 6,000 gsf of art studio, gallery, multifunction classroom, and supporting administrative spaces. The program is currently seeking funding from local sources and potential benefactors.

UAA Kodiak Career & Technical Education Center
FY20-FY21 (GF: $2,430.0, NGF: $0.0, Total: $2,430.0)
FY22-FY26 (GF: $21,870.0, NGF: $0.0, Total: $21,870.0)
The Vocational Technology Center (VOTECH) Building on the Kodiak campus was constructed in 1973 and as its outdated name implies, was designed and built for a different era. The facility no longer meets the Career and Technical Education (CTE) needs of industry and business partners for the types of classes and workforce training needs currently in demand in the Kodiak community, including the largest US Coast Guard base and island's seven rural villages. Attempting to meet the expanded and steadily increasing needs over the last seven years, the College has been only partially successful by conducting courses at the local high school. Unfortunately, courses may only be offered after the traditional high school day, thereby severely limiting the number of programs and courses

offered. Local school district prioritization limits availability and access to facilities to one or occasionally two weekday evenings only, with no ability to use facilities during traditional workday hours, on weekends, during school vacations, closures and summer months. These limitations have caused KOC to lease a warehouse off-campus to conduct career courses in welding and the construction trades. In order to meet the growing program and space needs for the construction, welding, occupational safety, fitness, marine maintenance and repair, alternative energy, diesel, small engine and mechanical trades and address the issues associated with the current on-campus building, an expansion of this existing facility should be constructed to house these programs.

UAA College of Education Reconfiguration/Addition and PSB Renovation
FY20-FY21 (GF: $5,000.0, NGF: $0.0, Total: $5,000.0)
FY22-FY26 (GF: $45,000.0, NGF: $0.0, Total: $45,000.0)
In 1973 the Anchorage Community College added Building K (now known as the Professional Studies Building (PSB)) adjacent to the five buildings that were constructed at the founding of West Campus in 1970. The Professional Studies Building was expanded shortly thereafter in 1975 with a classroom/studio wing to the west and the construction of the Wendy Williamson Auditorium to the east. PSB houses a number of different departments: College of Health (COH) Administration, Occupational Therapy/Physical Therapy/Physical Therapy Assistant, soon Pharmacy; College of Arts & Sciences (CAS) Journalism & Public Communication, Community and Technical College (CTC) College Preparatory and Developmental Studies (CPDS); KRUA Student Radio Station; and faculty union representatives, all in addition to the College of Education (COEd). Many of the office spaces serving these departments were backfilled into various areas of the building – many without access to daylight. The COEd now occupies a number of these discontinuous spaces, and will be adding a Doctorate of Education program that will require additional classroom, lab, and office space.

The 2009 UAA Campus Master Plan Update identifies a number of building modifications in proximity to the existing Professional Studies Building (PSB). A multi-story L-shaped building is shown directly attached to the north end of the existing PSB as the future home of the UAA COEd Learning Labs. A 2012 effort to develop the COEd Master Plan redefined the northern entrance and consolidated the COEd to the north side of the building on the first and second floors. Additionally, the plan created a new separate building for the Tanaina Child Development Center with integrated observation areas to be used by Early Childhood Development curriculums.

Since this time, the Health Sciences Building (HSB) Phase I was constructed and the Phase II is currently in planning with projected construction to be complete 2-3 years before this project's commencement. This will allow all remaining tenants of the PSB belonging to COH to relocate to HSB II, freeing a substantial portion of PSB as swing space to manage the churn for the renewal and consolidation activities. Also, the Tanaina Child Development Center has relocated off-campus so there is no longer a requirement to collocate with the COEd, therefore, this frees the open space north to West Campus Drive and west of the newly renovated Beatrice McDonald Hall for reassessment of access, parking, and physical and visual connectivity to the Cuddy Quadrangle and the rest of the West Academic Zone.

A new entry addition on the north end of the PSB would renew and redefine that end of PSB, presenting a new face of campus along both sides of the pedestrian walk and provide the COEd an opportunity to create its own individual campus identity at this entry addition. This addition will

redefine this north end in a way that clearly announces the new face of COEd. Glazed facades facing east and west will enliven views from adjacent walkways.

This project will also include the renovation, repurposing, and backfill of all other space in PSB, including:

- Space vacated by the College of Education;
- Space vacated by the College of Health by their move to the Health Science District (HSB II). (This work was previously included in CBR 446, Health Science Backfill); and
- All other occupied and unoccupied space in PSB.
- All building systems including, but not limited to, roofing, other exterior envelope, elevators, mechanical, electrical, plumbing, HVAC, fire protection/suppression, telecommunications, architectural finishes, and building automation systems.

UAA Cuddy Hall Expansion & Renewal
FY20-FY21 (GF: $2,100.0, NGF: $0.0, Total: $2,100.0)
FY22-FY26 (GF: $21,100.0, NGF: $0.0, Total: $21,100.0)
Lucy Cuddy Hall is a single story building that is home to the University's Culinary Arts and Hospitality programs and is also the main food service for the West Campus. In addition, Cuddy Hall acts as a community center that hosts a variety of activities, ranging from student study to conferences and weddings. Cuddy Hall was built in 1972 and has had additions constructed in 1977 and in 2008 in attempts to address the growth of the programs and increased demands on the facility. Funding for the 2008 addition was only able to address a very small portion of the many needs outlined at the time, leaving a large amount of the program that was developed to wait for future funding. Facilities Planning and Construction is reviewing the facility again, and initial concept planning in 2015 is showing Cuddy Hall can successfully be expanded and renovated to address the remaining program needs.

Goals of the Culinary Arts and Hospitality programs include:

-- the creation of an office suite providing clear identity to the programs;
-- increase instructional space to serve the programs;
-- make improvements to the layout of commercial kitchen elements of the Culinary Arts program.

Other areas of the building that need to be addressed include:

-- a full renovation of the food service area improving the ability to produce quality and relevant food, make it visible to the public, improve traffic flow, and prevent theft;
-- increasing the size of the main dining room for student study space;
-- add flexibility to the main dining room by providing dividers for multiple size events; and
-- install audio/visual equipment to improve service for conferences.

Additionally, since this building is one of the original five facilities built at the inception of the Anchorage Community College, this project also requires a full building renovation. The project will renovate and/or replace all building mechanical, electrical, plumbing, and fire protection systems; replace the roofing system; renew or replace exterior doors & windows as necessary; renew restrooms and all interior and exterior building finishes, including landscaping; and renovate the loading dock and service parking area.

UAA KPC Kachemak Bay Campus Library/Computer Addition
FY22-FY26 (GF: $1,500.0, NGF: $0.0, Total: $1,500.0)
Kachemak Bay Campus is a partner in the Enhancing Alaska's Rural Community Computing Centers application by the University of Alaska and the Alaska Distance Education Consortium (AKDEC) under the Broadband Technology Opportunity Program NOFA initiative. The campus was unsuccessful in obtaining a grant under this program to construct this project and is now seeking State funding.

UAA PWSC Computer Classroom Addition
FY22-FY26 (GF: $1,600.0, NGF: $0.0, Total: $1,600.0)
Prince William Sound College currently has a small computer lab with six computers. This 100 square foot space serves as both the Adult Basic Education lab and the campus computing lab. Access to computers is extremely limited.

UAA PWSC Lecture Hall / Workforce Development Center
FY22-FY26 (GF: $9,000.0, NGF: $0.0, Total: $9,000.0)
The Prince William Sound College GE Instruction and Vocational Technology / Work Force Development Training programs continue to expand and explore instruction and vocational training opportunities in areas such as the rural health care fields, industry, and other work force development needs in line with the UA and State of Alaska work force development objectives. To fulfill these program's strategic goals the need for classroom space, meeting and auditorium space, lab space, student support services and administration/faculty office space is pressing. The current facility does not have any space that can accommodate groups of 20 or more people. This additional space would be used year round for instruction, training, student success support and campus events.

UAA KPC Kenai River Campus Cultural Arts and Research Center
FY22-FY26 (GF: $12,500.0, NGF: $12,500.0, Total: $25,000.0)
The project is to build and operate a community-based Kenai Peninsula Cultural Arts and Research Facility associated with Kenai Peninsula College. The facility would be sited approximately 150 yards from the Brockel Building on a small bluff next to the southwest corner of the parking lot. The purpose of this multi-use facility is to serve as the foundation for anthropological research led by Dr. Alan Boraas, preservation of and research of cultural artifacts, a museum for preservation, research and storage of cultural/natural history artifacts and as a performing and fine arts education center. Various community organizations have expressed interest in this concept and in being partners with Kenai Peninsula College including local, state, federal and tribal governments.

UAA PWSC Outdoor Recreation Leadership Center
FY22-FY26 (GF: $3,000.0, NGF: $0.0, Total: $3,000.0)
The PWSC Outdoor Recreational Leadership Program would be based in Valdez with a partnership component with Kenai Peninsula College. The PWSC/KPC partnership will provide enhanced opportunities for students to learn in two very diverse topographical regions, both of which afford multiple – but differing – field experience in parks and outdoor recreational tourism. The geographic areas of Prince William Sound and the Kenai Peninsula and their surroundings would make this program a draw for students, potentially from out of state with the hope of drawing them and keeping them in Alaska.

Similar programs in the U.S. are successful in large part due to their geographic locations as well as the curriculum programming. PWSC has been at work for nearly 3 years researching, planning, and designing a unique Outdoor Recreational Leadership program that helps fill a workforce development hole while potentially drawing students into the State of Alaska. The program will provide a high level of flexibility for students to tailor their students to their specific interests and skills, and will partner with federal/state/municipal parks, the regional recreational and tourism industry, and other partners, seating an advisory council made up of representatives from these areas.

The program's curriculum is developed, and faculty for the program are accessible in the areas where the program is to be delivered, but a facility with which to most effectively house the program and its equipment is needed. Such a facility would provide not only appropriate equipment storage, but classroom space that can be designed to optimize instructional quality for this unique program. Current plans without the facility are to use available resources and existing classrooms, but doing so will have an impact on existing classes and programs, and will not be fully effective. It will amount to "making do" in an effort to provide important, unique, and new programming in Alaska higher education.

UAA Kodiak Longhouse
FY22-FY26 (GF: $8,600.0, NGF: $0.0, Total: $8,600.0)
This project would construct an approximately 12,000 GSF facility with a 100 to 120-seat auditorium, adjoining meeting rooms and collaborative areas for students, faculty, staff and the community to interact. The building would be sited on the campus to help unify the other buildings and blend with the natural setting of the campus.

UAA KPC Kachemak Bay Campus Technical Career Center
FY22-FY26 (GF: $7,200.0, NGF: $0.0, Total: $7,200.0)
The Kenai Peninsula College Master Plan has identified the need for a Technical Career Training Facility on the Kachemak Bay Campus. This building would provide training to local students for high demand technical jobs in the local area.

UAF Chukchi Campus Consortium Learning Center
FY22-FY26 (GF: $9,000.0, NGF: $0.0, Total: $9,000.0)
The Chukchi Campus Consortium Learning Center will provide a much needed space for students and the community to access a large collection of books and reference materials. The library currently houses over 15,000 items in its collection, yet the current setting is woefully inadequate. The new learning center will allow access to the entire collection along with improved seating and study areas for students and area residents.

UAS Auke Lake Field House
FY22-FY26 (GF: $11,500.0, NGF: $0.0, Total: $11,500.0)
The UAS 2012 Campus Masterplan found that the greatest current and future space deficiency for the Juneau campus is the lack of recreational opportunity.

UAS Physical Science Addition
FY22-FY26 (GF: $12,800.0, NGF: $0.0, Total: $12,800.0)
The Environmental Science program has poor quality lab space in the Hendrickson lower floor. The geology lab is undersized and staff office spaces are located in storage rooms. Environmental Science research labs are inconveniently located about one mile from campus which limits the opportunities for students to be exposed to research.

UAS Auke Lake Cultural Center
FY22-FY26 (GF: $27,500.0, NGF: $0.0, Total: $27,500.0)
Cultural experience is a vital part of student life at UAS but the Juneau campus has few venues for the presentation and performance of cultural events.

This facility will promote the arts and cultures of all peoples and cultures through education, cultural preservation, creative expression and economic development.

The UAS campus has no dedicated space for performances or large lectures or presentations. The largest lecture or performance seating capacity is currently the Egan Lecture Hall which seats only 150 people. The Egan Library design included this space in its original plan.

Research Facilities

UAF West Ridge Research Building #2
FY22-FY26 (GF: $100,000.0, NGF: $0.0, Total: $100,000.0)
To address continued lack of research labs and offices and to provide new, modern space for existing academic programs, a multi-disciplinary research building will be constructed on the West Ridge. It will fill a critical need for more laboratory space, and teaching and research space at UAF. This project is in alignment with the larger West Ridge revitalization plan.

UAS Natural Science Research Lab Site Development
FY22-FY26 (GF: $500.0, NGF: $0.0, Total: $500.0)
UAS acquired what had been the Alaska Dept. of Environmental Conservation laboratory in 2004. The property has inadequate parking which is provided in part through the lease of nearby private property. That lease will expire in a 2020 and the availability and or cost of that parking is unpredictable. This project would purchase adjacent land and construct a new parking lot.

Student Life (Housing), Support, and Other Facilities

UAS Student Commons
FY18-FY19 (GF: $10,000.0, NGF: $10,000.0, Total: $20,000.0)
A new UAS Student Union will significantly improve the Juneau Auke Lake Campus environment and enable the university to continue improvements in student recruitment, retention, and completion. With a mission focused on student success, UAS has seen major improvement in the retention of first-time, full-time students—increasing from 58% to 72% in recent years. This achievement is based in part on creating a new and dynamic central campus in Juneau: new freshman housing, pedestrian plazas and outdoor gathering areas, improved food quality, engaging campus life activities, enhanced services for Alaska Native and rural students, and close proximity to library and learning center

services. The new Student Union is expected to add significantly to these developments, making the UAS Auke Lake Campus an even more exciting and engaging setting for higher education.

The Student Union will occupy a central location on the campus, adjacent to the new freshman housing and the Egan classroom wing. It will include a new food service facility, a multipurpose assembly and meeting space, and space for student support services. It will provide expanded space and a warm, inviting atmosphere for the UAS Native and Rural Student Center—making the campus an even more inviting and supportive place for first-time college students.

The Student Union will help fulfill the goals of the UAS Campus Master Plan (2012) which seeks to support and enhance community engagement and provide venues for music, dance, theatrical, and other cultural and artistic performances. That Plan suggests that: Amenities should be built and expanded that encourage both resident and commuter students to remain on campus in order to strengthen both the social and academic aspects of campus life. This is an especially critical need during the winter months.

Juneau campus vision: Multiple gathering spaces are provided in central locations as a resource for commuter students as well as residential students. A new student union will provide expanded dining options and convenient access to student services within the campus Kwáan.

UAS currently lacks suitable venues for engaging the broader community in hosting forums, lectures, and cultural performances in spaces. For example, the university's popular Evening at Egan Lecture Series is hosted in the Egan Library in a space that otherwise would be used for student library needs. This space lacks appropriate seating and sightlines for large audiences. Smaller venues specifically designed for the temporary installment and public demonstration of student, faculty, and visiting lecturer research and creative expression are also lacking. Current space utilized for this purpose is often in high traffic corridors and hallways that do not lend themselves to public viewings or small group discussion.

Improvements to Juneau Campus dining options and facilities are a high priority. Commuter and resident students alike would benefit from both convenient locations as well as diverse food options. With the new resident hall at the Juneau Auke Lake campus, updated and redesigned dining facilities are a high priority.

UAF P3 Campus Housing Project
FY20-FY21 (GF: $6,500.0, NGF: $65,000.0, Total: $71,500.0)
As part of the "Student Life: Transforming the UAF Experience" project, UAF proposes to develop new student housing units through a public private partnership (P3) arrangement. This initial housing project will be the first phase in a plan to increase the overall quality and quantity of student living options (Fairbanks Campus housing). The original business and financing plan is being reevaluated based on the current funding environment.

UAA Community Arena and Recreational Facility
FY22-FY26 (GF: $120,000.0, NGF: $0.0, Total: $120,000.0)
Although the majority of UAA Athletic programs have relocated to the new Alaska Airlines Center (AAC) in 2014, the UAA Hockey Team locker rooms and practice ice rink remain in the Wells Fargo

Sports Center (WFSC) at the core of the UAA Campus. The WFSC facility is designated for replacement by a new building accommodating Student Support Services and an expanded Student Union in the 2013 Campus Master Plan. A new facility will be required to support the UAA Hockey Team prior to the demolition of the WFSC facility. Additionally, due to concerns of holding matches at the multi-purpose, city-owned Sullivan Arena where UAA Hockey games now take place, the new UAA facility will incorporate a competition ice arena capable of seating 3000 to 4000 fans.

UAA Student Support Services and Student Union Building
FY22-FY26 (GF: $172,000.0, NGF: $0.0, Total: $172,000.0)
The Student Administration and Student Services functions are currently dispersed on- and off-campus. Student advising, financial aid and enrollment services where moved off campus to the University Center in 2003; while Disability Support Services, Native Support Services, the Multicultural Center, Student Health and Counseling Clinic are located in Rasmuson Hall; and Student Government and Administration are located in the Student Union with various other student support functions scattered in other buildings. This makes it difficult and confusing for students that may need to access several of these groups, often times in conjunction with each other. Add to that the fact that the University Center is approximately 2.5 miles from the main campus and shuttle service and times are limited for providing access to students without personal transportation. In order to better meet the needs of prospective, new and existing students, these offices should be consolidated into one facility that is conveniently located in the campus core or near a gateway to the campus that is easily identifiable to those coming to campus.

Additionally, through interviews and assessments conducted during the 2013 UAA Campus Master Plan Revision, faculty, staff, and students highlighted the need to have these student support functions relocated to the campus core, as well as address the shortfall of individual student and small group study and project collaboration space. The current 45,000 GSF Student Union, constructed in 1977 and open in 1978, was designed to support the Anchorage Community College, which had less than a third of the current UAA enrollment of over 15,000 students.

UAA Student Housing
FY22-FY26 (GF: $5,000.0, NGF: $0.0, Total: $5,000.0)
UAA has been evolving into a more traditional university campus with the community campuses preparing and then feeding more students to the main campus. With more students coming to UAA from outlying areas and rural communities, there is a growing need to increase the amount of student housing on campus. A 2011 Housing Study indicated that the campus could support at least 500 additional housing beds and in 2013, the UAA Chancellor established a long term goal to double the campus housing capacity within the next ten years. UAA plans to explore Public Private Partnership opportunities as a potential means to expand the existing housing capacity to a total of 2000 beds by 2023.

Infrastructure

UAA Master Plan Circulation Improvements
FY18-FY19 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
FY20-FY21 (GF: $4,000.0, NGF: $0.0, Total: $4,000.0)
One of the primary results of the 2013 Campus Master Plan investigation was identifying the need for improved vehicular, bicycle, and pedestrian access, egress, and circulation around the perimeter and within the UAA Main Campus. Several UAA, MOA, and DOT projects either in planning or under construction will impact traffic patterns at UAA and within the UMED District. It will be to UAA's benefit to construct road and pedestrian improvements in conjunction with these traffic projects in order to improve circulation within UAA and the UMED District, and to concurrently secure MOA approval for the projects.

SW MAPTS Kenai Ground Water Contamination Mitigation
FY18-FY19 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
The Kenai MAPTS site, approximately .75 miles from the KPC Kenai River Campus, was used for fire training from approximately 1980 to 1988. The fire suppressants used during training at the site included aqueous film forming foams, which contain PFOA and PFOS. These are emerging contaminants that ADEC became aware of in 2012 while remediation work was being conducted by UAA at the MAPTS site for diesel contaminants.

This project will either take extensive remediation over a long period of time; it may be necessary to install treatment equipment in adjacent homes, perpetually provide drinking water, or buy-out property.

UAA Mat-Su Roads, Circulation, & Parking Improvements
FY18-FY19 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
This project will build a road with pedestrian sidewalk from the southern Snodgrass Hall SE parking lot, northeast across a ravine, and connect to the existing parking and circulation between the Fred and Sarah Machetanz Hall and the new Glenn Massay Theater. This loop will provide better flow around campus and emergency vehicle ingress/egress. Potentially the Matanuska-Sustina Borough will develop a loop road connecting local roads north to the new Water Tower and Trunk Road access. This requirement will be reassessed should MSB take that action first.

Additionally, with the construction of the Glenn Massay Theater, this project will assess parking utilization before, during and after class hours to determine the optimal quanity of parking necessary, and develop and construct this parking requirement.

Also, this project would provide any necessary walkways, curbing, signage, lighting, etc. to improve and complete vehicular and pedestrian circulation to and around the campus.

UAA Kodiak Entrance Road Realignment and Exterior Lighting
FY18-FY19 (GF: $500.0, NGF: $0.0, Total: $500.0)
FY20-FY21 (GF: $5,000.0, NGF: $0.0, Total: $5,000.0)
The Kodiak Campus is comprised of three main buildings and a couple of small outbuildings. The original Benny Benson building and the Vocational Technology building are connected and have been

expanded through a series of additions. They were located on the south side of the entrance road and parking lot. In 1982 the Adult Learning Center was built and placed on the north side of the road across from the Benny Benson Building. As the student population has increased, so has the traffic entering the campus, creating a hazard for students crossing between the buildings divided north and south of the campus. In addition, there is little to no access to the backs of the buildings for fire, security and emergency personnel access. The entrance to the campus needs to be redesigned to improve the traffic flow and better promote the campus location. The parking lots are in need of resurfacing and there is inadequate lighting in the lots and outside the buildings. New and improved lighting will enhance security and energy efficiency.

UAA Emergency Infrastructure Repair/Replacement
FY22-FY26 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
During repairs to heating lines entering the UAA Engineering Building in 2014, excessive ground water was encountered. The source of the groundwater was determined to be storm water and cooling water discharge escaping from the East Campus storm drain system. The storm drain was inspected by camera and shown to have numerous major breaks and in some places complete disintegration along approximately 1500 feet of the line constructed with ENGR and NSB facilities in the early 1980's.

The loss of structural integrity in the storm water line is allowing storm water and cooling water discharge to escape underground at numerous locations saturating subsurface soils and potentially compromising geotechnical stability for buildings, road, and other infrastructure. Expected to cost 80%-100% of new construction cost.

UAA KPC City of Soldotna J/V Water System Loop Connection
FY22-FY26 (GF: $2,000, NGF: $0.0, Total: $2,000.0)
Kenai Peninsula College has been working with the City of Soldotna to bring a water line to the northwestern edge of the Kenai River Campus that could tie into the water line extension project that was recently completed. The water line extension and this new connection would create a loop and provide the campus with a redundant, uninterruptable water supply.

UAF Core Campus Parking Garage
FY22-FY26 (GF: $4,500.0, NGF: $4,500.0, Total: $9,000.0)
As the historic campus core, Lower Campus is the location of most general academic and administrative functions at the UAF Fairbanks Campus. The numerous small parking lots that have long served Lower Campus were identified in the Campus Master Plan for potential removal. In total, approximately 350 out of the existing 750 spaces could be removed either for future building development or under the Campus Master Plan.

In order to better serve the UAF students, faculty, staff and Fairbanks community, this project will provide parking within a structure to serve campus. The original business and financing plan is being reevaluated based on the current funding environment.

Land, Property and Facilities Acquisitions

UAA KPC Kachemak Bay Campus Property Acquisition
FY18-FY19 (GF: $1,800.0, NGF: $0.0, Total: $1,800.0)
KPC Kachemak Bay Campus has extremely limited real estate assets. Future campus facilities and infrastructure needs will be severely hampered by the limited real estate holding. Any and all adjoining parcels should be considered for acquisition as they become available or sooner. Due to decreased property values because of the recession, purchasing these surrounding parcels in the near future is recommended.

UAA Kenai River Campus Property Acquisition
FY22-FY26 (GF: $2,235.0, NGF: $0.0, Total: $2,235.0)
Kenai Peninsula Campus is quickly becoming landlocked with fewer immediate opportunities to expand contiguously from the existing campus. The Kenai River forms the eastern boundary. Kalifonsky Beach ("K-Beach") Elementary School bounds to the west of the new Student Housing facility. There are open parcels to the north for acquisition.

UAF Northwest Campus Realignment
FY18-FY19 (GF: $380.0, NGF: $0.0, Total: $380.0)
The Northwest Campus is located on the east end of Nome on the edge of the main business district and within a hundred feet of the Bering Sea. The campus is surrounded by residential homes, small and medium sized apartments, and is adjacent to a thriving hotel. The campus property consists of a cluster of contiguous lots of varying sizes and shapes within one city block. Some of the lots comprising campus are leased from the city of Nome and some of them are owned by the university. UAF and UA Lands are currently in negotiations with the City to purchase the leased lots. The hotel adjacent to the campus has indicated that if UAF is successful in purchasing its leased lots, the hotel would like to purchase from UAF the lot adjacent to its current property. The Northwest Campus Master Plan approved by the Board of Regents in 2013 noted that if this lot is sold to the hotel, one building on the lot could be demolished and one building, the Seppala Building, would ideally be relocated to another portion of campus closer to the other classroom buildings. UAF has been awarded a 5-year federal Title III grant which will assist in meeting some of the campus renovation needs. This grant can only be used to renovate facilities and may not fund the building move. Relocation of the Seppala Building must be complete prior to conducting renovations on it. This request is for funds to relocate the Seppala Building, and to complete other campus realignment tasks as envisioned in the master plan.

UAS Facilities Services Physical Plant Replacement
FY20-FY21 (GF: $2,430.0, NGF: $0.0, Total: $2,340.0)
FY22-FY26 (GF: $6,690.0, NGF: $0.0, Total: $6,690.0)
The existing Facilities site in Juneau began as a converted residential building and has been supplemented with temporary and marginal improvements for the last thirty years. This project would demolish a portion of the Facilities complex and construct replacement shop, storage and office space on the current site.

The current Facilities Services site can only be accessed by a steep driveway and curving which enters directly on to Glacier Highway. The topography and land ownership in this location prohibit the

realignment of this driveway to provide a level entry to the highway. This project will also develop a direct service access to the Auke Lake campus without entering Glacier Highway.

UAA Adjacent Land and Property Acquisitions
FY20-FY21 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
In the UAA Master Plan, it is proposed that the University seek to acquire parcels of property that are currently for sale and/or contiguous with the current campus for future University development.

UAA Warehouse and Support Facility
FY20-FY21 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
The UAA Physical Plant is currently located in core academic space of the West Campus and is scattered across the campus in small pockets of available space. The activities of the Physical Plant are inconsistent with the academic nature of the area and are inadequate for the operations being conducted. In addition, as part of the land trade with Providence Hospital in 2005, the UAA Warehouse and Operations Yard were removed from the University Inventory. Those space requirements were greatly consolidated and are currently occupying much needed parking and academic space or require leased off-campus storage space. UAA currently leases space near the University Center which is used by GSS, Facilities and the College of Engineering. There are similar properties in proximity to the Anchorage campus that could be purchased.

Research for Alaska

UAF Rapid Warning Development: Earthquake & Tsunami Safety (Earthscope)
FY18-FY19 (GF: $5,000.0, NGF: $8,500.0, Total: $13,500.0)
A magnitude five or larger earthquake occurs each week in Alaska. From Southeast to the North Slope to the western Aleutians, earthquakes rattle most mines, dams, pipelines, ports, power plants, schools and communities each year. The Federal Emergency Management Agency (FEMA) estimates Alaska's annualized earthquake loss at more than $50 million per year.

This initiative allows industry and communities to continue benefiting from the $40 million Federal investment in Alaska occurring under the EarthScope USArray program. Between now and 2019, this program is operating an unprecedented network of 260 seismic sensors in a grid across the state. Without state support, the sensors will be removed at the end of the project in 2019 and the benefits of comprehensive monitoring will cease. With state support, a critical portion of the sensors will remain in place and the data flow will continue. Data from the sensors can be leveraged by the Alaska Earthquake Center to track the occurrence of earthquakes with exceptional accuracy and in places where monitoring has never been possible.

This is a one-time opportunity to provide comprehensive earthquake assessment with an effective cost share of 10-to-1 because of the National Science Foundation's upfront investment to install the equipment. An investment of $2 million provides the deliverables during the lifespan of the project. The remaining $3 million investment allows UAF to buy out the in-place instrumentation at a fraction of true cost. Deliverables to the state include:

Earthquake tracking in all parts of Alaska. Prior to the EarthScope project, earthquakes could not be reliably measured across vast swaths of the state. Without this, infrastructure and industry

developments lack meaningful assessment of earthquake hazards. When these hazards are underestimated, facilities can be saddled with costly retrofits. When hazards are overestimated, projects are needlessly expensive. This initiative will provide earthquake tracking in all parts of the state.

Statewide database of likely earthquake scenarios. Using the record of earthquakes provided by the sensors, the Alaska Earthquake Center will produce a statewide database of the most likely scenarios for earthquakes. Users will be able to query any region in the state to obtain estimates of the ground shaking from potential earthquakes. The project will publish maps of ground shaking for all known earthquake hazards in Alaska.

Rapid notification to critical infrastructure. Following significant earthquakes, the final link of this project would provide measurements of ground shaking to the operators of major facilities. This information can be compared with engineering plans to rapidly determine which design specifications may have been exceeded by the earthquake, and which parts of the system remain safe. This information would be used by mines, ports, oil platforms, pipelines, hospitals, as well as bridge and building operators.

This project would benefit every person, in all parts of Alaska. These three products are viable, only now, because of the data afforded by the EarthScope USArray stations.

UAF Critical Mineral Resources Research Center
FY18-FY19 (GF: $2,000.0, NGF: $2,000.0, Total: $4,000.0)
While well-known for its oil fields, Alaska also has a wealth of mineral resources. In addition to more familiar resources such as gold, zinc, silver, copper and coal, Alaska has critical minerals known as rare earth minerals. The rare earths are a group of 17 elements whose unique properties are useful in a wide variety of applications. The profitability of mining these rare earth minerals depends a great deal on the proportion of rare earths in the recovered mined rock, and can be enhanced by understanding the geology of the deposit and optimizing mineral recovery rates from the ore. Recently UAF research improved rare earth recovery at the Bokan deposit in southeast Alaska. As demonstrated with the Bokan deposit, UAF has the core expertise to enhance mineral recovery while minimizing environmental impacts. However, UAF researchers do not currently have all the tools necessary to achieve these benefits. Funding is requested for laboratory equipment, laboratory set-up, and initial support research staff, who will seek external grants and contracts to support their work in the future.

Two additional critical mineral resource research opportunities in the near future are assessing and managing the impacts of arctic mining and identifying minerals from conflict zones. The Arctic is one of the last frontiers for development, and has tremendous potential, but accessing its resources in the U.S. and Canada will require assurances that the fragile arctic environment will be protected. Relative to conflict zones, U.S. companies are legally required to certify that metals they use in production do not come from designated conflict regions. Alaska has a long history of identifying sources of gold, and UAF could leverage that reputation to expand into formal source certification for a range of metals. Research on mineral source identification could result in the creation of a private company that markets the technological advances made at UAF. Although these two opportunities appear different, they rely on the same equipment and the same researcher expertise, and so funding this request would enable UAF to respond to both.

UAF Revitalizing Alaska Native Languages
FY20-FY21 (GF: $500.0, NGF: $500.0, Total: $1,000.0)
Alaska's 20 Native languages, spoken nowhere else in the world, face a difficult battle for future survival and represent a unique cultural heritage for Alaska. The knowledge embedded in Alaska Native languages spans a broad spectrum of human experience, helping indigenous peoples to understand the changing environment and how to adapt to those changes. In 2012 the Alaska Legislature established the Alaska Native Language Preservation and Advisory Council (ANLPAC), and its first report issued in 2014 includes recommendations for statewide language revitalization efforts. This request follows the ANLPAC framework and will fund a conference focused on indigenous language revitalization to establish needs and plan future action. This effort will emphasize language immersion education by providing seed funding for planning "language nests" (pre-school programs), language immersion schools, in addition to funding a proposal process through which language communities can start specific projects. Additionally, this will allow the Alaska Native Language Center and the Alaska Native Language Archive at UAF to further organize and increase access to teaching materials and other existing resources to benefit regional language programs.

Academic Equipment

UAA College of Engineering Materials Testing Lab Upgrades
FY20-FY21 (GF: $600.0, NGF: $0.0, Total: $600.0)
The Materials Testing Lab will house the equipment necessary to mechanically test materials, structures and machines. It will be possible to determine the mechanical properties of materials, including elastic modulus, yield strength, tensile strength, ductility, and resilience, as well as determine material fatigue and fracture behavior. Structures and machines or their elements such as beams, columns, and shafts could be tested in monotonic or cyclic loading. This equipment will be used for several engineering courses and is needed for mechanical and civil engineering projects and courses. The new equipment and software has been selected such that it is safe for student use and easy to operate.

UAA College of Engineering Terrestrial Laser
FY20-FY21 (GF: $84.2, NGF: $0.0, Total: $84.2)
The terrestrial laser scanner will be used in several undergraduate Geomatics classes to teach field data collection and post-processing for precise 3D measurements of man-made structures, construction sites, excavation and mines, analysis of structural deformation, etc. Terrestrial laser scanners are standard equipment for surveying work in the oil and gas industry, including continuous monitoring of the Alyeska pipeline. Coupled with the imaging station, the laser scanners are a very powerful tool in collecting High Density Surveying data.

UAF Classroom Instructional and eLearning Technology
FY20-FY21 (GF: $2,000.0, NGF: $0.0, Total: $2,000.0)
This request will install and/or upgrade instructional technologies in 50 classrooms throughout the UAF campuses. Installations and upgrades will include presentation and distance delivery technologies, videoconferencing, lecture capture and mobility. In FY09 UAF academic usage of video conferencing was 5,454 hours, in FY15 UAF utilized 7,333 hours of academic video conferencing

reflective of a 30 percent increase over six years. Video conferencing is proven to be a highly effective instructional technology at UAF and facilitates learning and teaching throughout the state and in rural communities. The increase in demand has eclipsed the existing capacity of the classrooms equipped with current instructional technologies and video conferencing technology.

Technological innovation is an important aspect of teaching and learning in the 21st century. According to the International Journal on Integrating Technology in Education, today's students have spent their entire lives surrounded by digital technologies. Through their use of cellphones, smartphones, tablet computers and laptops, college students are arriving in higher education classrooms more technologically linked and socially connected than ever before. These portable technologies with online connectivity challenge educators to meet students in the technological world. As the demand for mobile technology and individualized learning propagates, a clear transformation in the use of technology must occur.

A key benefit of eLearning is that it can increase enrollment by increasing access and offering flexibility that reaches a broader range of students. Technology-enabled learning spans distance; in Alaska, investing in instructional technology is prudent. From "flipped" classrooms (a form of blended learning where students watch video lectures at home and work on assignments in class) to massive open online courses (MOOCs), eLearning is creating a notable transformation in higher education. As the paradigm shifts from traditional teaching methods to technology-enabled learning, it is essential that classrooms be equipped with the instructional technology that enables instructors to provide active, connected learning that improves student outcomes.

UAF educators routinely conference with numerous statewide locations. It is common for an instructor at UAF to teach students at UA extended campuses across the state as well as K-12 sites in Glennallen, the Lower Yukon School District, Bering Strait School District, Telehealth networks, and with students nationally as well as internationally, using video on their personal computers.

University of Alaska
FY2017 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 Building Envelope & Roof Systems Renewal	1,000.0
Campus Building Interior & Systems Renewal	500.0
Campus Exterior Infrastructure and Signage Renewal	250.0
University Lake Annex, UPD Relocation	3,000.0
EM1 and EM2 Mechanical	2,500.0
Consortium Library Old Core Mechanical Upgrades	5,250.0
UAA Main Campus Subtotal	12,500.0
UAA Community Campuses	
KPC Campus Renewal	750.0
Kodiak College Campus Renewal	415.6
PWSC Campus Renewal	200.0
Mat-Su Campus Renewal	392.0
KPC Kachemak Bay Campus Renewal	120.0
Mat-Su Parking/Road/Circulation Renewal	100.0
PWSC Parking and Security Upgrades	155.0
Mat-Su Bridge Enclosure	300.0
KPC Kachemak Bay Pioneer Hall Boiler & Exterior Improvements	70.0
UAA Community Campuses Subtotal	2,502.6
UAA DM and R&R Total	15,002.6
UAF Main Campus	
Fairbanks Campus Main Waste Line Repairs	2,870.0
Fairbanks Main Campus Wide Roof Replacement	4,500.0
Critical Electrical Distribution	4,000.0
ADA Compliance Campus Wide: Elevators, Ramps, Restrooms	1,500.0
Elevator/Alarms Scheduled Upgrading and Replacement	1,000.0
Fairbanks Campus Building Interior & Systems Renewal	1,500.0
Campus Infrastructure	1,500.0
West Ridge Facilities Deferred Maintenance and Revitalization	11,400.0
Patty Center Revitalization	3,000.0
Renewal & Renovation, Code, ADA	31,000.0
UAF Main Campus Subtotal	62,270.0
UAF Community Campus	
Kuskokwim Campus Facility Critical Deferred and Voc-Tech Renewal -- Phase 2	1,630.0
UAF Community Campus Subtotal	1,630.0
UAF DM and R&R Total	63,900.0
UAS Main Campus	
Lakeside Access Improvements	250.0
Egan Library Enhancements	1,600.0
Juneau Campus Roof Replacement	300.0
Juneau Campus Site Lighting Replacement	360.0
UAS DM and R&R Total	2,510.0
Statewide	
Butrovich Lighting Upgrades	500.0
Butrovich Building Repairs	100.0

University of Alaska
FY2017 Priority Deferred Maintenance (DM) and Renewal and Repurposing (R&R) Projects
State Appropriations *(in thousands of $)*

Project Name	DM & R&R
University House Repairs	75.0
Statewide DM and R&R Total	675.0
UA FY2017 DM and R&R Total	82,087.6
Additional DM and R&R	
UAA Main Campus	280,952.7
UAA Community Campuses	32,844.2
UAF Main Campus	632,292.4
UAF Community Campuses	47,871.9
UAS Main	6,587.3
Statewide	2,024.9
UA System Additional DM and R&R Total	1,002,573.4
UA DM and R&R Total	1,084,661.0

UAA Main Campus

- **Campus Building Envelope & Roof Systems Renewal**
  FY17 (GF: $1,000.0, NGF: $0.0, Total: $1,000.0)
  FY18-FY26 (GF: $9,000.0, NGF: $0.0, Total: $9,000.0)
  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.

- **Campus Building Interior & Systems Renewal**
  FY17 (GF: $500.0, NGF: $0.0, Total: $500.0)
  FY18-FY26 (GF: $4,500.0, NGF: $0.0, Total: $4,500.0)
  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; they 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.

- **Campus Exterior Infrastructure and Signage Renewal**
  FY17 (GF: $250.0, NGF: $0.0, Total: $250.0)
  FY18-FY26 (GF: $2,250.0, NGF: $0.0, Total: $2,250.0)
  The UAA campus is over 30 years old and many of the 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. This results in uneven surfaces, lack of adequate sidewalks and other deficiencies that pose a safety hazard or are increasingly susceptible to additional damage. Increased enrollment and subsequent staffing increases dictate a need to upgrade and repair these surfaces in order to maintain a safe and effective environment for students, staff and the public, as well as a need to provide adequate exterior wayfinding signage.

- **University Lake Annex, UPD Relocation**
  FY17 (GF: $3,000.0, NGF: $0.0, Total: $3,000.0)
  FY18-FY26 (GF: $0.0, NGF: $0.0, Total: $0.0)
  The UAA University Police Department is currently located in the first floor, Eugene Short Hall in the West Campus Zone. This is an administrative service housed in the most used classroom building on campus. Other UPD facilities were spread across campus due to the lack of administrative support space in Eugene Short Hall, such as the Weapons Room being located in Rasmuson Hall and the Evidence Locker in various storage areas as available.

  Patrol car parking and egress from the assigned parking lot is problematic in emergencies or when responding to calls. In all instances, officers must exit thru the PSB West Parking Lot, north to

West Campus Drive, then meander thru secondary roads to the rest of campus or make two left turns across traffic to get back to Providence Drive, the main arterial crossing campus.

The ULA building was originally built in 1983. Emergency Management and recently Parking Services are current occupants of the north side of the building. College of Engineering has resided in the southern two thirds of the building while waiting for the new Engineering and Industry Building to be constructed and the original Engineering Building to be renewed. The building is 9,000 GSF and renovation will UPD will occupy 6,450 sf of the building. Parking Services and Emergency Service Management occupy the remainder of the building.

Moving UPD to ULA was an option in the 2013 UAA Campus Master Plan, which defined use of this space for mixed use, retail, services, parking, or student housing. Collocating UPD, Emergency Management and Parking Services together creates a mutually supporting environment to provide services to faculty, staff, students and visitors on the edge of campus and protection closest to our 24/7 student residents and extended-hours Consortium Library operation.

- **EM1 and EM2 Mechanical**
  FY17 (GF: $2,500.0, NGF: $0.0, Total: $2,500.0)
  FY18-FY26 (GF: $2,751.5, NGF: $0.0, Total: $2,751.5)
  The Energy Modules (EM1, EM2) were constructed in 1977 and provide heating and cooling services for a number of campus facilities. The Energy Module boilers, pumps and piping systems are over 30 years old and has been failing due to age, corrosion and fatigue. Many of these failures have occurred during the winter months when additional stresses are placed on the systems due to increased heating demands and environmental impacts. These failures further impact other systems, thus driving up the associated costs. Emergency repairs are very expensive and have a severe impact on students, faculty and staff working in the buildings served by these modules.

- **Consortium Library Old Core Mechanical Upgrades**
  FY17 (GF: $5,250.0, NGF: $0.0, Total: $5,250.0)
  FY18-FY26 (GF: $6,086.9, NGF: $0.0, Total: $6,086.9)
  The original HVAC systems consist, for the most part, of equipment over 29 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. 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.

UAA Community Campuses

- **KPC Campus Renewal**
  FY17 (GF: $750.0, NGF: $0.0, Total: $750.0)
  FY18-FY26 (GF: $6,750.0, NGF: $0.0, Total: $6,750.0)
  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. With the exception of some painting and the Ward Building renewal in 2005, the exteriors of these buildings have not been upgraded since they were built. A number of roofs are at or have exceeded their life cycle at the Kenai River Campus. Some roofs contain asbestos products which will require some abatement prior to replacement. 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. Some of the original methods of construction included single pane windows, door glass, and aluminum store fronts that do not block the cold and increase utility costs and extreme campus-user discomfort during the extreme winters. Many of the entrances are not covered and allow the buildup of ice and snow at the critical slip/trip points at the building entrances. In addition to gaining additional instruction space and significantly increased energy efficiencies, this project will create a positive first impression for visitors and prospective students.

  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 University needs to replace the heat plant and air handling equipment for these facilities prior to a catastrophic failure results in and emergency replacement.

- **Kodiak College Campus Renewal**
  FY17 (GF: $415.6, NGF: $0.0, Total: $415.6)
  FY18-FY26 (GF: $3,740.4, NGF: $0.0, Total: $3,740.4)
  The buildings on the Kodiak Campus were constructed in the early to mid 1970s. The exteriors are painted wood siding that are being impacted by the exposure to the extreme climate conditions of Kodiak. 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 until the UAA 315 Kodiak Road Realignment and Exterior Lighting project is completed. Improvements to layout and design will increase space efficiency and allow for replacement of worn and outdated fixed equipment.

- **PWSC Campus Renewal**
  FY17 (GF: $200.0, NGF: $0.0, Total: $200.0)
  FY18-FY26 (GF: $1,800.0, NGF: $0.0, Total: $1,800.0)
  The Growden-Harrison building was originally build 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.

- **Mat-Su Campus Renewal**
  FY17 (GF: $392.0, NGF: $0.0, Total: $392.0)
  FY18-FY26 (GF: $3,528.0, NGF: $0.0, Total: $3,528.0)
  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 (MSC) are 15-30 years old and their roofs need to be replaced. With several of MSC's buildings reaching 25-30 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.

- **KPC Kachemak Bay Campus Renewal**
  FY17 (GF: $120.0, NGF: $0.0, Total: $120.0)
  FY18-FY26 (GF: $1,080.0, NGF: $0.0, Total: $1,080.0)
  A significant portion of the Kachemak Bay Campus Building (KB101, 7,200 sqft.) was originally built in 1988 as a post office. The roof and mechanical/electrical systems are original and were not updated as part of the campus addition in 2006.

- **Mat-Su Parking/Road/Circulation Renewal**
  FY17 (GF: $100.0, NGF: $0.0, Total: $100.0)
  FY18-FY26 (GF: $551.0, NGF: $0.0, Total: $551.0)
  The Mat-Su campus is over 30 years old and many of the 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. This results in uneven surfaces, lack of adequate sidewalks and other deficiencies that pose a safety hazard or are increasingly susceptible to additional damage. Unpaved surfaces cause dirt and mud to be tracked into the building damaging the carpets and floor coverings. Increased enrollment and subsequent staffing increases dictate a need to upgrade and repair these surfaces in order to maintain a safe and effective environment for students, staff and the public.

- **PWSC Parking and Security Upgrades**
  FY17 (GF: $155.0, NGF: $0.0, Total: $155.0)
  FY18-FY26 (GF: $1,395.0, NGF: $0.0, Total: $1,395.0)
  This project will address safety issues such as vehicle circulation, parking lot lighting, building lighting and security cameras. This project will renew landscaping around the parking area and the buildings. This work is driven by a need for an increased security presence on campus and reconfiguration of the area based on the Whitney Museum addition which was completed in spring 2008.

- **Mat-Su Bridge Enclosure**
  FY17 (GF: $300.0, NGF: $0.0, Total: $300.0)
  FY18-FY26 (GF: $1,100.0, NGF: $0.0, Total: $1,100.0)
  The Snodgrass and Machetanz buildings are connected by a bridge that is partially enclosed on the Snodgrass end. The open portion of the bridge is exposed to the elements which is causing corrosion and weakening of the metal superstructure. The icy and wet surfaces also pose a hazard to users. Enclosure of the entire bridge would reduce the damage to the bridge and create a safer walkway for the users. In addition, some furniture could be added to create student interaction and study space.

  Cost has increased based on completion of recent design and due to abatement requirement for lead paint used on the structure and its span over the local creek.

- **KPC Kachemak Bay Pioneer Hall Boiler & Exterior Improvements**
  FY17 (GF: $70.0, NGF: $0.0, Total: $70.0)
  FY18-FY26 (GF: $430.0, NGF: $0.0, Total: $430.0)
  When the original Pioneer Building and the Bayview Building were originally constructed, natural gas was not yet available in Homer, Alaska. Natural gas was connected to Homer and made available to customers in Fall 2013. This provided a significantly more efficient and less expensive source of heating fuel for the Kachemak Bay Campus.

  The newer Bayview Building boilers have been converted to burn natural gas by replacing the boiler burners, the older Pioneer building will require additional modification to the boiler systems. Additionally, exterior work and landscaping will be required to complete the removal and remediation of the underground storage tank removed in 2015.

UAF Main Campus

- **Fairbanks Campus Main Waste Line Repairs**
  FY17 (GF: $2,870.0, NGF: $0.0, Total: $2,870.0)
  FY18-FY26 (GF: $7,740.0, NGF: $0.0, Total: $7,740.0)
  Much of the sanitary and storm sewer main piping on campus is original wood stave or clay piping dating back nearly 60 years. These mains, though not at full capacity, have far exceeded their useable life and are failing. Campus growth and an ever-changing regulatory environment require the modification and upgrade of the waste water handling infrastructure. UAF has used State

funding and UAF bonds to implement work identified in the 2006 Campus Wide Sewer Assessment, replacing waste lines in order of priority. The repairs are approximately 75 percent complete. The requested funding will replace additional waste line main piping with new modern materials with a life that exceeds 60 years.

- **Fairbanks Main Campus Wide Roof Replacement**
  FY17 (GF: $4,500.0, NGF: $0.0, Total: $4,500.0)
  FY18-FY26 (GF: $9,000.0, NGF: $0.0, Total: $9,000.0)
  UAF has many large campus structures that still have original roof systems. As buildings on campus age and do not receive adequate R&R funding, roofing system repairs only offer a band-aid solution to a long-term problem. UAF has expended 75 percent of Roof Replacement funding received to date, which is 21 percent of the total request through FY26. Approximately 25 percent of campus roofs have been replaced using DM funding over the last 10 years. Funding is required to continue this multi-year project to replace roofs that have surpassed their useable life and are at risk of complete failure.

- **Critical Electrical Distribution**
  FY17 (GF: $4,000.0, NGF: $0.0, Total: $4,000.0)
  FY18-FY26 (GF: $2,370.0, NGF: $0.0, Total: $2,370.0)
  The existing electrical distribution system at UAF is nearly 50 years old. Upgrading the distribution system (including antiquated switchboards, code violations, old cabling and transformers) on the UAF campus has been a top priority to ensure campus power is safe and reliable. Funding for this project began in 2009. Since then 85 percent of the campus electrical system has been upgraded, utilizing 99.7 percent of the funds received to date. This funding request would complete the upgrade and allow the power distribution system to hook up safely to the new power plant when it is completed.

- **ADA Compliance Campus Wide: Elevators, Ramps, Restrooms**
  FY17 (GF: $1,500.0, NGF: $0.0, Total: $1,500.0)
  FY18-FY26 (GF: $5,500.0, NGF: $0.0, Total: $5,500.0)
  The Campus Wide ADA Compliance project is an on-going effort to bring the UAF Fairbanks campus and associated community and research campuses into compliance with ADA guidelines. This project includes accessibility improvements such as renovations to restrooms, improvements to accessibility routes both inside and outside buildings, replacing drinking fountains, upgrading elevators, and modifying stairwell handrails. With funding received to date, code compliant restrooms have been created in 95 percent of UAF buildings, and work to upgrade interior and exterior ramps has been progressing. Over the last eight years, an average of $330,000 has been spent on ADA compliance work annually. Future work will address additional ADA compliance issues, including installing elevators in buildings without them.

- **Elevator/Alarms Scheduled Upgrading and Replacement**
  FY17 (GF: $1,000.0, NGF: $0.0, Total: $1,000.0)
  FY18-FY26 (GF: $4,500.0, NGF: $0.0, Total: $4,500.0)
  UAF Facilities Services manages the operation and maintenance for a fleet of more than 50 elevators and lifts with an average age of over 25 years. With the help of an FY01 audit, 28 elevators were identified as needing modernization upgrades. To date, approximately 70 percent of the identified elevators have been upgraded using DM funding. This request represents the latest installment of multi-year modernization plan and will address ADA, code, and deferred maintenance improvements in the campus elevator systems. Also included in this scope of work is routine and deferred maintenance on the many fire alarm systems in UAF facilities.

- **Fairbanks Campus Building Interior & Systems Renewal**
  FY17 (GF: $1,500.0, NGF: $0.0, Total: $1,500.0)
  FY18-FY26 (GF: $4,500.0, NGF: $0.0, Total: $4,500.0)
  This project will focus on critically needed existing building interiors and systems renewal. Particular emphasis will be on instructional, research and resident life spaces.

- **Campus Infrastructure**
  FY17 (GF: $1,500.0, NGF: $0.0, Total: $1,500.0)
  FY18-FY26 (GF: $5,950.0, NGF: $0.0, Total: $5,950.0)
  The UAF Fairbanks campus is serviced by infrastructure that was constructed up to 60 years ago when the student population and vehicle traffic were only a fraction of what they are today.

  In addition to necessary communications infrastructure improvements, UAF Fairbanks Campus roads and building access are in major need of renewal and renovation. Unlike the state, UAF does not receive federal maintenance funding per mile of road. UAF also does not receive funding for projects that address air quality improvements such as bus pullouts and bike paths.

  Typical projects include multiple sidewalk, curb, gutter and ramp improvements, exterior lighting systems and safety fencing at Sustainable Village Housing, the VoIP communication infrastructure upgrade, and future completion of the northern link of Tanana Loop. The project will also create safe and attractive pedestrian walkways and resurfacing of existing roads and renovation of sidewalks to maintain ADA compliance.

- **West Ridge Facilities Deferred Maintenance and Revitalization**
  FY17 (GF: $11,400.0, NGF: $0.0, Total: $11,400.0)
  FY18-FY26 (GF: $274,000.0, NGF: $0.0, Total: $274,000.0)
  The majority of the facilities located on UAF's West Ridge were built in the late 1960s and early 1970s. Irvings 1 and 2, Elvey, O'Neill, and Arctic Health Research buildings serve multiple research and academic units on the Fairbanks Campus. The facilities house major academic programs for fisheries, biology, wildlife, physics, chemistry, agriculture and natural resource management. Elvey, home to the UAF Geophysical Institute, is a major center for many state emergency preparedness programs including the Alaska Earthquake information Center and the

Alaska Volcano Observatory. The Arctic Health Building is home to several research programs that directly affect the health and welfare of thousands of Alaskans including the Center for Alaska Native Health Research and the School of Natural Resources and Agricultural Sciences. The Irving 1 facility is the home of the Institute of Arctic Biology and the Department of Biology and Wildlife. Hundreds of undergraduate, graduate, and master degree students learn, research, and teach in the building every day. The research intensive Irving 2 facility serves the Institute of Marine Sciences and School of Fisheries & Ocean Sciences.

These facilities, which represent nearly 500,000 gross square feet of space, are the key component to UAF's competitive edge in research relating to the people and places of the arctic regions. Research performed in the building represents over 50% of the total research revenue for the campus. Academic programs represented on West Ridge also affect over 1,500 undergraduates and graduates seeking a degree in a program offered on West Ridge.

The FY17 West Ridge DM funding will continue the progress of a major renewal on West Ridge, systematically working through the deferred renewal plan. Work will include initial (Phase 1) renovations in the Elvey building, which are now approaching critical status, and will be followed by Phase 2 renovations to include replacement of the failed exterior curtain wall, seismic upgrades, removal of asbestos fireproofing, ADA compliance, replacement of major mechanical and electrical equipment, and improving energy use. Other smaller projects from the FY15 and FY16 plan will also be completed including demolition and relocation of a large animal facility, consolidation of multiple library stacks and subsequent space repurposing, and corrections to several failed foundations on existing facilities.

- **Patty Center Revitalization**
  FY17 (GF: $3,000.0, NGF: $0.0, Total: $3,000.0)
  FY18-FY26 (GF: $27,000.0, NGF: $0.0, Total: $27,000.0)
  Constructed in 1963 to replace an existing 40-year old gym, the Patty Center now houses sports and recreational space for five NCAA Division II, and two NCAA Division I sports. This includes both men's and women's teams that are a vital part of UAF campus life and the Fairbanks community. In 2014 UAF completed a comprehensive facilities revitalization plan for the Patty Center complex. To date DM funding has been spent on minimal ADA restroom and seating upgrades, and gym flooring preservation. Seventy-nine percent of the current funding has been spent and 3 percent of the total 10-year funding request has been received. The requested funding will begin to implement the facilities plan, correcting an abundant list of code citations, upgrading the center to meet basic competition standards, and extending the life of the 50-year-old facility.

- **Renewal & Renovation, Code, ADA**
  FY17 (GF: $31,000.0, NGF: $0.0, Total: $31,000.0)
  FY18-FY26 (GF: $0.0, NGF: $0.0, Total: $0.0)
  UAF's R&R request represents a proportional share of the expected $50.0 million UA system R&R request. The list of items above represents several high priority R&R, Code and ADA items and an estimated amount for allocation in FY17. These items are a small fraction of all UAF R&R and

DM needs. Facility events may require reprioritizing and/or increasing or decreasing specific projects and allocation amounts based on those circumstances.

UAF Community Campuses

- **Kuskokwim Campus Facility Critical Deferred and Voc-Tech Renewal -- Phase 2**
  FY17 (GF: $1,630.0, NGF: $0.0, Total: $1,630.0)
  FY18-FY26 (GF: $13,000.0, NGF: $0.0, Total: $13,000.0)
  Current maintenance and repair funding levels are not sufficient to meet the critical maintenance needs at the rural campuses. Funding will allow for continued major renovations and code upgrades to over 50,000 square feet of space. Work generally includes new architectural finishes on the inside and outside, new electrical distribution, corrected plumbing systems, and installation of code compliant ventilations systems.

UAS Main Campus

- **Lakeside Access Improvements**
  FY17 (GF: $250.0, NGF: $0.0, Total: $250.0)
  FY18-FY26 (GF: $750.0, NGF: $0.0, Total: $750.0)
  The purpose of this project is to better integrate Auke Lake into the UAS campus by improving visual, physical and educational connections with Auke Lake. The need for this project is to take advantage of the excellent resources Auke Lake provides for educational, cultural, recreational and marketing opportunities.

  Auke Lake sits at the foot of the University of Alaska Southeast (UAS) campus, it supports diverse species of fish and wildlife, provides stunning views of southeast Alaska rainforests, Mount McGinnis, Mendenhall Glacier, the northern lights and is featured extensively in UAS marketing materials. Currently there is no clear connection between Auke Lake and UAS. Access to the lake shoreline is obscure, poorly marked, and awkwardly situated behind buildings. Lakeside facilities are small, underused and geared toward Juneau's infrequent warm sunny weather. Buildings, large trees and undergrowth along the shoreline, block views to the Lake. Creating a stronger connection to Auke Lake will enhance the natural setting of campus, improve student life, and increase the educational and cultural opportunities of UAS to students, staff and the community.

  Successful implementation of this plan would:
  - Make UAS students, staff and visitors feel that Auke Lake is part of the UAS campus.
  - Increase the number of locations on campus that students and visitors can view Auke Lake.
  - Promote architectural development that provides views to the lake.
  - Increase, cultural and recreational use of Auke Lake for UAS students and Juneau residents.
  - Develop safe and clear connections from the campus core and campus trail system to the lake.
  - Offer attractive pathways and trails along the UAS shoreline.
  - Provide lake side facilities capable of supporting 15-20 students for educational opportunities.
  - Increase the number of lakeside destinations for a wide variety of year-round activities.
  - Make lake access and facilities comfortable during the cold and wet months of the school year.

Elements of the plan include:
- Enhancements and expansion of the existing Auke Lake Float.
- Better pedestrian connection to the internal campus trails and the Auke Lake Trail System.
- A winter season warming hut and social space to be used to support lakeside educational venues as well as recreational opportunities for students.

- **Egan Library Enhancements**
  FY17 (GF: $1,600.0, NGF: $0.0, Total $1,600.0)
  As a result of the UAS 2012 Campus Masterplan, a study was done of the space use and opportunities for better utilization of the Egan Library.

  The way information is researched, stored, utilized and shared in academic environments has changed dramatically over the past several decades. As more information is stored digitally, traditional libraries have seen the need for space to store books decrease.

  A concurrent trend relates to the way today's students absorb and retain information differently than those of previous generations. Many prefer more collaborative and hands on learning styles. These two phenomenon have a large impact on the function and space utilization of university libraries, and many institutions are changing their library culture to create learning commons to best serve their students.

  Despite a decreased dependence on books student use of the library has increased in recent years. Students come to the library to work with their peers in the enclosed study rooms, use the technology available in the library and participate in the services of the Learning and Writing Centers. These are separate rooms within the library where students obtain the help they need, but also have the chance to learn from their colleagues and join in on conversations and learning opportunities going on around them. It is consistent with a learning center for these types of activities to take place within the library proper as part of an interactive learning center.

  This project represents a series of changes in the physical space of the Egan Library that were recommended by this study.

  Elements of the plan include:
  - Reorient circulation desk for direct line of sight to front entry doors and to reference desk librarian.
  - Build direct connection and entry to the ground floor of the library from ground floor of Egan Classroom wing.
  - Build condensed storage/compact shelving to shelve current open stacks; evaluate Automated Storage and Retrieval System (ASRS) as a possibility.
  - Build quiet, individual study rooms and technology-rich group study rooms.
  - Update power/communication/digital needs throughout.
  - Build Exhibition/gallery space for student work.
  - Create traditional special collections and reading room for groups or individuals.
  - Reevaluate and refurbish/replace library furniture.

- **Juneau Campus Roof Replacement**
  FY17 (GF: $300.0, NGF: $0.0, Total: $300.0)
  FY18-FY26 (GF: $250.0, NGF: $0.0, Total: $250.0)
  This project will replace the majority of the existing roof at the Technology Education Center and remove the existing membranes and install a new fully adhered EPDM membrane and an additional thickness of thermal insulation over the remaining portion of the roof.

- **Juneau Campus Site Lighting Replacement**
  FY17 (GF: $360.0, NGF: $0.0, Total: $360.0)
  FY18-FY26 (GF: $600.0, NGF: $0.0, Total: $600.0)
  This project will replace existing exterior building lights, and pedestrian area lights with new lighting that will improve color rendition, light levels and energy use. New fixtures using light emitting diodes (LED) have become affordable for this application and will be supported by new aluminum poles for a longer functional life. These are the final phases of replacement of exterior lighting on the Juneau Auke Bay Campus. These two phases will replace pedestrian walkway lights at the student apartment complex, and street lights on University Way.

Statewide

- **Butrovich Lighting Upgrades**
  FY17 (GF: $500.0, NGF: $0.0, Total: $500.0)
  FY18-FY26 (GF: $0.0, NGF: $0.0, Total: $0.0)
  In 2010, a lighting study was conducted for the Butrovich Building to evaluate the efficiency and condition of the existing fixtures and controls. Based on the findings of this survey, there were seven recommendations made to increase the energy efficiency of the building and reduce the operating costs for maintaining the buildings lighting systems. During the summer of 2014, a "Daylight Harvesting" project was completed on the north side of the building to correct issues with an earlier system that had been installed but failed to work properly, which addressed part of one of the recommendations from the report. That project has proven to be successful and is working as designed. This project will complete the rest of the recommendations from the 2010 Study.

- **Butrovich Building Repairs**
  FY17 (GF: $100.0, NGF: $0.0, Total: $100.0)
  FY18-FY26 (GF: $1,800.0, NGF: $0.0, Total: $1,800.0)
  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.

- **University House Repairs**
  FY17 (GF: $75.0, NGF: $0.0, Total: $75.0)
  FY18-FY26 (GF: $224.9, NGF: $0.0, Total: $224.9)
  The University house is over 20 years old has reached a point where systems and components will need to be repaired or replaced as they are at the end of their useful life. The building envelope needs to be maintained to ensure that the structure remains sound. Replacement of roof should be

completed within the next 3-7 years and exterior surfaces need to be inspected, repaired or replaced and refinished.

References

University of Alaska
FY2017 Deferred Maintenance (DM) and Renewal & Repurposing (R&R)
Distribution Methodology
(Based on Age, Size, and Value of Facilities)

	Location	# of Bldgs	Average Age (years)	Weighted Avg. Age (years)	Gross Area (sq. feet)	Adjusted Value (thousands)	Index (GSF and Age)	Dist. % *	DM Model
Anchorage Campus	*Anc.*	67	25.4	18.5	2,821,845	1,117,180.8	52,186.3	25.5%	12,772.3
UAA Community Campus		29	21.3	22.1	419,234	211,936.5	9,260.5	5.9%	2,953.1
Kenai Peninsula College	*Soldotna*	*8*	*25.8*	*21.3*	*151,345*	*71,347.8*	*3,219.4*	*1.8%*	
Kachemak Bay	*Homer*	*3*	*16.0*	*27.6*	*25,787*	*12,229.3*	*712.2*	*0.5%*	
Kodiak College	*Kodiak*	*5*	*38.8*	*38.5*	*44,981*	*21,575.5*	*1,733.6*	*1.1%*	
Matanuska-Susitna College	*Palmer*	*7*	*23.7*	*22.9*	*135,412*	*74,561.3*	*3,107.0*	*2.2%*	
Prince Wm. Sound College	*Valdez*	*6*	*6.5*	*7.9*	*61,709*	*32,222.6*	*488.2*	*0.4%*	
	UAA Total	96	25.5	19.0	3,241,079	1,329,117.3	61,446.8	31.5%	15,725.4
Fairbanks, CRCD & CTC	*Fbks.*	250	33.8	32.1	3,391,638	1,518,434.1	108,849.3	56.3%	28,125.6
UAF Community Campuses		30	29.3	144.5	132,222	100,225.8	19,109.4	4.2%	2,119.8
Bristol Bay Campus	*Dillingham*	*3*	*14.0*	*766.9*	*20,217*	*11,468.1*	*15,504.1*	*0.5%*	
Chukchi Campus	*Kotzebue*	*1*	*39.0*	*38.0*	*10,362*	*9,072.9*	*393.8*	*0.4%*	
Interior Alaska Campus	*Multiple*	*5*	*27.2*	*33.2*	*29,111*	*21,548.5*	*966.4*	*0.9%*	
Kuskokwim Campus	*Bethel*	*7*	*31.3*	*29.0*	*51,774*	*42,427.8*	*1,502.8*	*1.7%*	
Northwest Campus	*Nome*	*14*	*34.9*	*35.8*	*20,758*	*15,708.6*	*742.4*	*0.7%*	
	UAF Total	280	34.3	36.3	3,523,860	1,618,659.9	127,958.7	60.5%	30,245.4
Southeast Campus	*Juneau*	34	26.1	18.5	455,072	166,219.9	8,407.3		
UAS Community Campus		5	8.9	6.2	115,908	48,266.4	715.5		
Ketchikan Campus	*Ketchikan*	*4*	*14.8*	*12.1*	*47,850*	*25,307.7*	*579.4*		
Sitka Campus	*Sitka*	*1*	*3.0*	*2.0*	*68,058*	*22,958.7*	*136.1*		
	UAS Total	39	28.8	16.0	570,980	214,486.3	9,122.8	4.9%	2,439.0
Statewide	*Various*	9	36.7	33.6	220,050	81,760.8	7,397.9	3.2%	1,590.2
	SW Total	9	36.7	33.6	220,050	81,760.8	7,397.9	3.2%	1,590.2
	UA Total	424	32.1	27.3	7,555,969	3,244,024.3	205,926.2	100.0%	50,000.0

Facility data from 2014 Facilities Inventory

*This distribution is based on the individual building age and adjusted value by campus

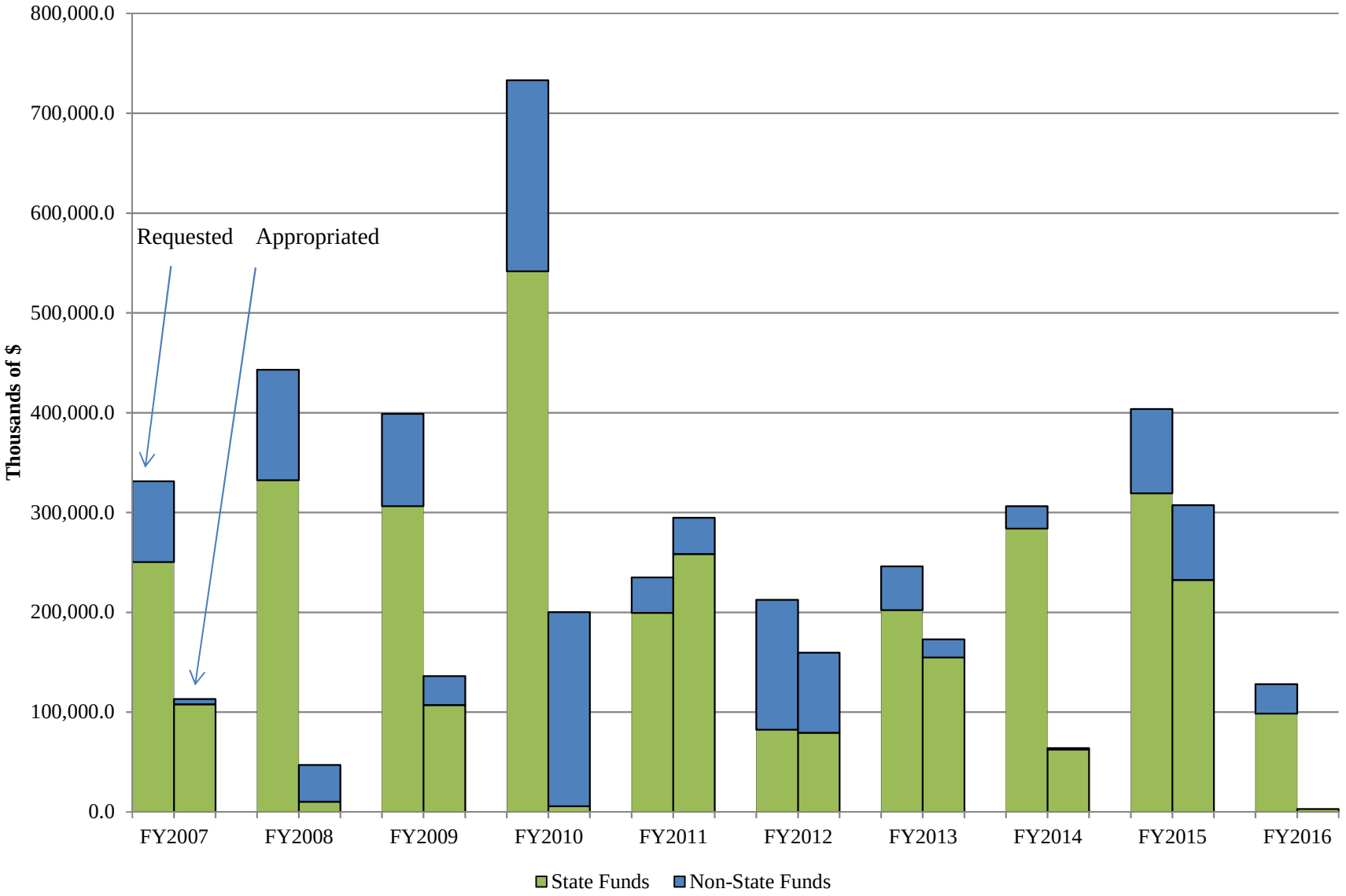
University of Alaska
Capital Budget Request vs. State Appropriation
FY2007-FY2016
(in thousands of $)

Request	Renewal and Repurposing	Add/Expand	New Facilities	Equipment	Other[1]	Total
FY2007	87,520.0	9,650.0	135,983.0	16,721.9	550.0	250,424.9
FY2008	131,016.0	6,395.0	186,500.0	7,874.7	550.0	332,335.7
FY2009	114,000.0	2,000.0	163,870.0	26,000.0	550.0	306,420.0
FY2010	204,130.0		194,495.0	90,000.0	53,150.0	541,775.0
FY2011	100,000.0		99,375.0			199,375.0
FY2012	70,433.0				12,092.5	82,525.5
FY2013	187,500.0				14,700.0	202,200.0
FY2014	162,500.0		108,900.0		12,500.0	283,900.0
FY2015	37,500.0		273,900.0		7,900.0	319,300.0
FY2016	50,000.0		35,550.0		13,000.0	98,550.0
Total	1,144,599.0	18,045.0	1,198,573.0	140,596.6	114,992.5	2,616,806.1
10 yr. Avg	114,459.9	1,804.5	119,857.3	14,059.7	11,499.3	261,680.6

Approp.	Renewal and Repurposing	Add/Expand	New Facilities	Equipment	Other[1]	Total
FY2007	48,587.1		58,637.9		715.0	107,940.0
FY2008	8,200.0		1,525.0		640.0	10,365.0
FY2009	45,822.6		61,300.0		125.0	107,247.6
FY2010	3,200.0		2,500.0			5,700.0
FY2011	43,694.7		213,896.7	400.0	558.5	258,550.0
FY2012	39,500.0	2,000.0	35,800.0		2,204.0	79,504.0
FY2013	37,950.0		108,900.0		8,040.0	154,890.0
FY2014	30,000.0		30,000.0		2,588.7	62,588.7
FY2015	19,273.0		212,600.0	120.0	450.0	232,443.0
FY2016	3,000.0					3,000.0
Total	279,227.5	2,000.0	725,159.6	520.0	15,321.2	1,022,228.3
10 yr. Avg	27,922.7	200.0	72,516.0	52.0	1,532.1	102,222.8

[1] Includes research, small business development center and other capital appropriations

University of Alaska
Capital Request and Appropriation Summary
FY2007-FY2016

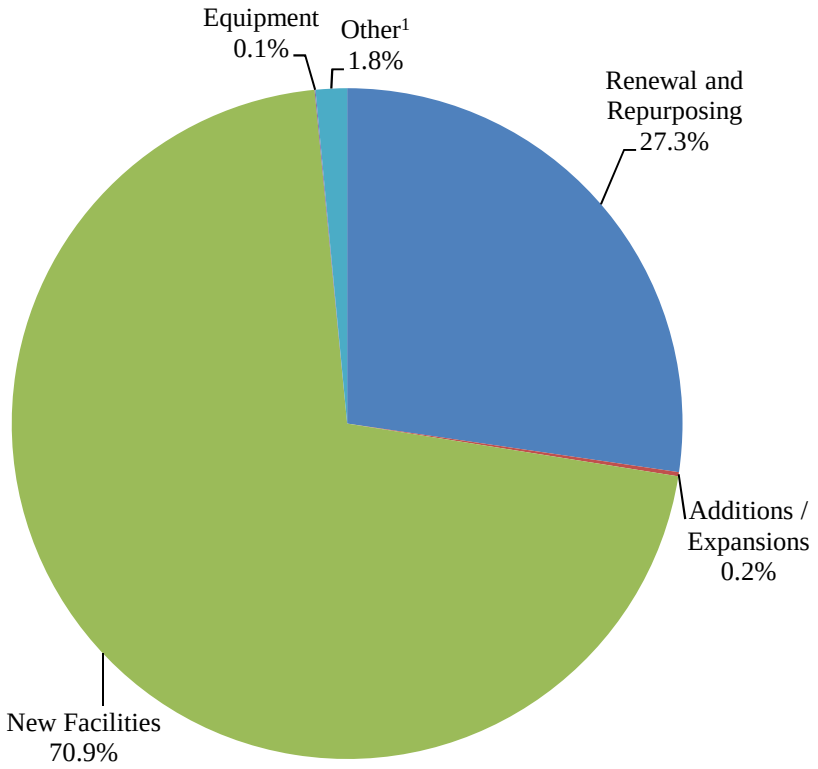


University of Alaska
State Appropriation Summary by Category
FY2007-FY2016
(in thousands of $)

Campus	Location	Renewal and Repurposing		Additions / Expansions		New Facilities		Equipment		Other[1]		Total	
Anchorage Campus	Anchorage	68,508.3	24.5%			334,112.9	46.1%			3,500.0	22.8%	406,121.1	39.7%
Kenai Peninsula College	Soldotna	7,906.6				32,300.0				50.0		40,256.6	
Kachemak Bay	Homer	875.8				2,750.0				265.0		3,890.8	
Kodiak College	Kodiak	2,492.4	8.7%				8.5%				2.1%	2,492.4	8.4%
Matanuska-Susitna College	Palmer	5,110.6				23,500.0						28,610.6	
Prince Wm. Sound College	Valdez	7,917.9				3,050.0						10,967.9	
	UAA	92,811.6	33.2%			395,712.9	54.6%			3,815.0	24.9%	492,339.5	48.2%
Fairbanks Campus	Fairbanks	123,990.3				325,446.7				10,728.3		460,165.3	
Fairbanks Campus	Juneau		44.5%				44.9%				70.0%		45.0%
Fairbanks Campus	Palmer	300.0										300.0	
Fairbanks Campus	Seward												
Community Campuses	Various	169.0								53.5		222.5	
Bristol Bay Campus	Dillingham	193.0								16.8		209.8	
Chukchi Campus	Kotzebue												
Interior Alaska Campus	Tok	140.0										140.0	
Interior Alaska Campus	Fort Yukon	7.3	4.3%								0.9%	7.3	1.2%
Interior Alaska Campus	Fairbanks	47.7								11.4		59.1	
Kuskokwim Campus	Bethel	7,042.5								12.9		7,055.4	
Northwest Campus	Nome	4,433.0								5.1		4,438.1	
Fairbanks Campus (CES)	Kenai									90.0		90.0	
UAF Comm. & Tech. College	Fairbanks	16,863.1	6.0%							44.9	0.3%	16,908.1	1.7%
	UAF	153,186.0	54.9%			325,446.7	44.9%			10,962.8	71.6%	489,595.5	47.9%
Juneau Campus	Juneau	26,591.9	9.5%	2,000.0	100.0%	4,000.0	0.6%	520.0	100.0%	394.0	2.6%	33,505.9	3.3%
Ketchikan Campus	Ketchikan	2,099.8	1.2%							30.4	0.4%	2,130.2	0.3%
Sitka Campus	Sitka	1,360.2								30.4		1,390.6	
	UAS	30,051.9	10.8%	2,000.0	100.0%	4,000.0	0.6%	520.0	100.0%	454.7	3.0%	37,026.6	3.6%
Statewide	Fairbanks	3,178.0	1.1%							88.7	0.6%	3,266.7	0.3%
Systemwide	Systemwide												
	SW	3,178.0	1.1%							88.7	0.6%	3,266.7	0.3%
	UA Grand Total	279,227.5	100.0%	2,000.0	100.0%	725,159.6	100.0%	520.0	100.0%	15,321.2	100.0%	1,022,228.3	100.0%
	% of Total	27.3%		0.2%		70.9%		0.1%		1.5%		100.0%	

[1] Includes research, small business development center and other capital appropriations

State Appropriation Summary by Category FY2007 -FY2016



New Facilities and Major Expansions

UAA
AK Cultural Center & PWSCC Training Center (FY07)
Integrated Science Facility (FY07)
Kachemak Bay Campus New Facility (FY08, Reapprop FY10, FY11)
Health Sciences Building (FY09)
Engineering Building (FY11, FY13, FY14, FY15)
Kenai Peninsula College Campus Student Housing (FY11, FY12)
Kenai Peninsula College Campus Career
& Technical Education Center (FY11)
Matanuska-Susitna Campus Valley Center for Art & Learning (FY11)
Alaska Airlines Center (FY09, FY11, FY12)

UAF
Museum of the North (FY07)
Engineering Building (FY11, FY13, FY14, FY15)
Life Sciences Classroom and Laboratory Facility (FY11)
Heat & Power Plant Major Upgrade (FY15)

UAS
Banfield Hall Dormitory Addition (FY12, FY13)

[1] Includes research, small business development center and other capital appropriations