



Non- Academic Project Program Resource Planning Status Report

UAS Technical Education Center Renewal

Formal Project Approval

This project involves renewal of the mechanical and electrical systems and upgrades to the space in the Technical Education Center and the Welding Lab. A MAA and SON were developed as the Renewal will impact program space allocations and program delivery in addition to the building system upgrades.

Milestone #0

Mission Area Analysis: (Included with FPA) Date: 12/12/13
 Statement of Need: (Included with FPA) Date: 12/12/13

Milestone #1

Statewide Academic Council (SAC) Review: Date: N/A
 (Not required for non-academic projects)

Milestone #2

Preliminary Administrative Approval: Date: 06/06/12

Milestone #3

Statement of Requirements: (To be developed) Date: _____

Milestone#4

Business and Financing Plan: Date: N/A
 Operating Budget Request (not requested, existing facility) Date: N/A
 Capital Budget Request: Date: FY15& FY16
 Legislative Funding: FY13 DM&R funding for Phase 1
 Board Approval of Capital Budget Distribution: Date: 06/06/12

Milestone #5

Formal Project Approval: Date: **12/16/13**
 Schematic Design Approval: Date: _____

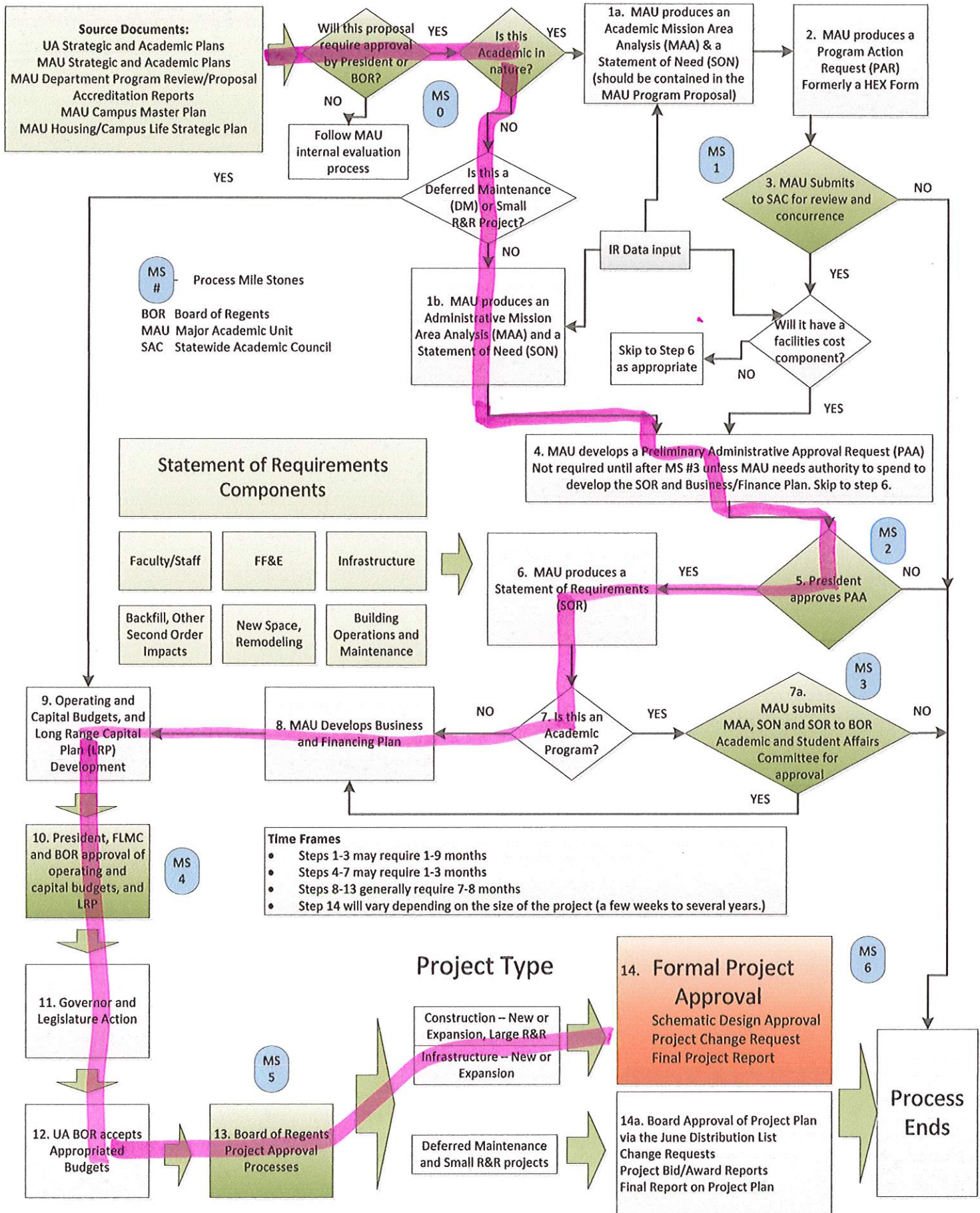
Milestone #6

Construction Started: Date: _____
 Construction Completed: Date: _____
 Beneficial Occupancy: Date: _____
 Final Project Report: Date: _____

University of Alaska Program Resource Planning

Academic, Budget and Project Planning Process

Rev. 9-8-11





FORMAL PROJECT APPROVAL

Name of Project: UAS Technical Education Center Renewal
Project Type: Renewal & Repurposing
Location of Project: UAS, Juneau Campus, Technical Education Center and Welding Lab, Juneau
Project Number: 2013-02
Date of Request: November 15, 2013

Total Project Cost:	\$ 4,620,000	
Approval Required:	Full Board	
Prior Approvals:	Preliminary Administrative Approval	June 2012

A Formal Project Approval (FPA) is required for all Capital Projects with a Total Project Cost in excess of \$250,000.

FPA represents approval of the Project including the program justification and need, scope, the total project cost, and the funding and phasing plans for the project. Requests for formal project approval shall include a signed project agreement or facilities pre-design statement, the proposed cost and funding sources for the next phase of the project and for eventual completion of the project, and a variance report identifying any significant changes in scope, budget, schedule, deliverables or prescriptive criteria associated with a design-build project, funding plan, operating cost impact, or other cost considerations from the time the project received preliminary administrative approval. It also represents authorization to complete project development through the schematic design, targeting the approved scope and budget, unless otherwise designated by the approval authority.

Action Requested

The Facilities and Land Management Committee recommends that the Board of Regents approve the Formal Project Approval request for the University of Alaska Southeast Technical Education Center Renewal as presented in compliance with the approved campus master plan, and authorizes the university administration to proceed through Schematic Design not to exceed a total project cost of \$ 4,620,000. This motion is effective December 12, 2013.

Project Abstract

The Technical Education Center Renewal is a multi-year project of building upgrades to the Technical Education Center and the Welding Lab. Academic programs and curriculum have changed significantly since the Technical Education Center and Welding Lab were put into service in 1984 and 1981 respectively. The Technical Education Center received additions in 1985 and 1992, but neither building has had a major remodel since then. Mechanical and electrical systems in both buildings are largely original. As a consequence, current programs are not well supported. Programs will receive upgraded space, configured to meet current program requirements and building common spaces will be upgraded. Upgrades to major building systems including mechanical and electrical systems, exterior envelope, and building controls. Improvements are needed to better accommodate the teaching activities in the building

and to improve energy efficiency, reduce operational costs, and replace systems and components that are nearing the end of their service lives.

Variances

This project began as an expansion of the current diesel technology lab and has expanded based on the conceptual planning process over the last year. The project as now envisioned reconfigures a portion of each of the principal teaching labs in the building.

Special Considerations

Work must be phased to allow current academic programs to continue during the work. Only a portion of the total project cost is available at this time. The first phase of the project will utilize \$1.5 million of 2013 capital renewal funds. The priority for the first phase will be expansion of the diesel technology teaching lab. A schematic project approval will be submitted for that project in early 2014.

Total Project Cost and Funding Sources

Total Project Cost	\$4,620,000
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Phase 1 of this project is funded with \$1.5M of 2013 R&R capital (563138). The remaining work is expected to be accomplished in 2 or 3 additional increments depending on future funding.

Annual Program and Facility Cost Projections

This project is expected to reduce the energy consumption of the existing facility. Elements of the project that will contribute to the energy efficiency of the facility include: renewal of the building automation system, replacement of the boilers, replacement of most of the building lighting systems, and replacement of the majority of the ventilating fans. Based on results from previous building renewal projects we expect to reduce the energy consumption of the building by at least 20%.

	<u>Amount</u>
Total Annual Program Cost Increase	unchanged
Total Annual O&M Cost (based on 20% reduction of energy consumption)	-\$20,000
Total Annual Renewal and Replacement Cost	unchanged

Project Delivery Method

The project will be Design-Bid-Build.

Affirmation

This project complies with Regents Policy, the campus master plan and the Project Agreement.

Supporting Documents

- Mission Area Analysis and Statement of Need
- Project Agreement
- One-page Project Budget
- Conceptual Work Items Narrative
- Work Items Floor Plan

Approvals

The level of approval required for FPA shall be based upon the estimated TPC as follows:

- **TPC > \$4.0 million will require approval by the board based on the recommendations of the Facilities and Land Management Committee (FLMC).**
- TPC > \$2.0 million but not more than \$4.0 million will require approval by the FLMC.
- TPC > \$1.0 million but not more than \$2.0 million will require approval by the Chair of the FLMC.
- $\text{TPC} \leq \$1.0$ million will require approval by the AVP of Facilities and Land Management.



PROJECT AGREEMENT

Name of Project: UAS Technical Education Center Renewal
Project Type: R&R
Location of Project: UAS, Juneau Campus, Technical Education Center and Welding Lab,
Project Number: 2013-02
Date of Agreement: November 15, 2013

INTRODUCTION

A Project Agreement (PA) is required for all Capital Projects with a Total Project Cost anticipated to exceed \$2.5 million. For project under \$2.5 million, a project agreement should be attached to the FPA or all of the components of the PA may be incorporated into the FPA.

The PA represents a formal agreement between the affected program department(s), the MAU's chief facilities administrator, the chief academic officer, the chief financial officer, the chancellor, and the chief facilities administrator documenting a common understanding of the programmatic need, project scope, and other matters related to the project.

BODY OF THE AGREEMENT

Basis for the Project

The Technical Education Center Renewal is a multi-year program of building upgrades to the Technical Education Center and the Welding Lab which will reconfigure program spaces and renew or replace building systems and infrastructure.

Programmatic Need

Academic programs and curriculum have changed significantly since the Technical Education Center and Welding Lab were put into service. Current programs are not well supported.

Power Technology, Construction Technology, Mining Training, and Marine Transportation will be reconfigured to meet current program requirements.

Strategic Importance

See attached Mission Area Analysis and Statement of Need

Impact Analysis

See attached Mission Area Analysis and Statement of Need

Program Enhancements

No additional services or programs are intended beyond those provided in the current facility. There will be reallocation of spaces between those programs to reflect current and future demands. See attached MAA and SON.

Needs Assessment

The Technical Education Center, located at 1415 Harbor Way in downtown Juneau, was built in 1983 and added on to twice, in 1985 and 1992. The building has not had a major remodel since then. The mechanical and electrical systems are largely original.

Upgrades to major building systems including mechanical and electrical systems, exterior envelope, and building controls are needed to improve energy efficiency, reduce operational costs, and replace systems and components that are nearing the end of their service lives.

The Welding Lab, also at 1415 Harbor Way, was purchased by the University and remodeled in 1980 into a welding lab and support spaces. The building has not had a major remodel since then.

Project Impact

The project is expected to improve the operational efficiency of the facility by lowering future energy and maintenance costs. Energy costs will be reduced due to replacement of older less efficient heating, ventilating and lighting equipment. Future maintenance costs will be reduced due to replacement of equipment that has or is nearing the end of its useful life.

Project Site Considerations

There is no site work anticipated with this project.

Incremental Costs

There are no incremental costs associated with this project.

Proposed Funding Plan

Phase 1 of this project is funded with \$1.5M of 2013 R&R capital (563138). The remaining work is expected to be accomplished in 2 or 3 additional increments depending on future funding.

Annual Program and Facility Cost Projections

Program Costs – there will be no program costs increases due to this project.

Facilities Costs: - This project is expected to reduce the energy consumption of the existing facility. Elements of the project that will contribute to the energy efficiency of the facility include: renewal of the building automation system, replacement of the boilers, replacement of most of the building lighting systems, and replacement of the majority of the ventilating fans. Based on results from previous building renewal projects we expect to reduce the energy consumption of the building by at least 20%.

Total Project Cost and Funding Sources

Funding Title	Fund Account	Amount
FY13 DM Funding (phase1)	77100-563138	\$1,500,000
FY14-16 DM Funding (Future Request)	TBD	3,120,000
Total Project Cost		\$4,620,000

Project Schedule – Phase 1 only

DESIGN	
Conceptual Design	August, 2013
Formal Project Approval	December, 2013

Schematic Design	January, 2014
Schematic Design Approval	February, 2014
Construction Documents	March, 2014
BID & AWARD - Phase 1	
Advertise and Bid	April, 2014
Construction Contract Award	April, 2014
CONSTRUCTION	
Start of Construction	May, 2014
Construction Complete	August, 2014
Date of Beneficial Occupancy	August, 2014
Warranty Period	One year

Supporting Documents

MAA/SON
 One-page Budget
 Drawings:
 Phasing Plan, August 23, 2013

Agreement

In witness whereof, the parties attest that they have made and executed this Agreement to be effective the date and year first above written.

Pete Traxler

Digitally signed by Pete Traxler
 DN: cn=Pete Traxler, o=Career Education, ou=Associate Dean,
 email=pstraxler@uas.alaska.edu, c=US
 Date: 2013.11.14 09:26:57 -0900

Pete Traxler, Associate Dean, Career Education for Juneau Programs



Keith Gerken, Director, Facilities Services

Michael Ciri, Interim Vice Chancellor of Administrative Services

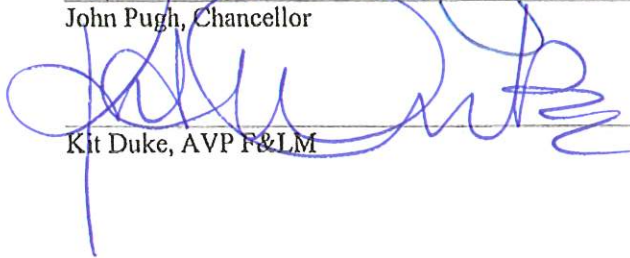


Richard A. Caulfield, PhD, Provost



John Pugh, Chancellor

ACTING CHANCELLOR 11/14/13



Kit Duke, AVP F&LM

11.18.13

UNIVERSITY OF ALASKA			
Project Name: Technical Education Center Renewal			
MAU: UAS			
Building: Technology Education Center		Date: November 2013	
Campus: Juneau		Prepared By: W.K.Gerken	
Project # 2013-02		Account No.: 563138	
Total GSF Affected by Project:		21,890	
PROJECT BUDGET			Total Project
A. Professional Services			
Consultant Basic Services	15.0%	536,000	
Construction Administration	2.0%	71,000	
Site Survey		-	
Soils Engineering		-	
Project Inspection	2.0%	71,000	
Plan Review / Permits		8,000	
Other		-	
Professional Services Subtotal			686,000
B. Construction			
General Contractor		3,191,000	
Other Contractors (Voice/Data Installation)		-	
Construction Contingency	12.0%	383,000	
Art		-	
Other (Interim Space Needs)		-	
Construction Subtotal			3,574,000
Construction Cost per GSF			
C. Equipment and Furnishings			
Equipment		25,000	
Furnishings		75,000	
Make Ready/Move In			
Equipment and Furnishings Subtotal			100,000
D. Administrative Costs			
CIP recovery	3.5%	152,000	
Misc. Expenses		-	
Project Management	2.5%	108,000	
Administrative Costs Subtotal			260,000
E. Total Project Cost			4,620,000
Total Project Cost per GSF		\$	211.06

Mission Area Analysis and Statement of Need: University of Alaska Southeast (UAS) Technical Education Center (TEC), Juneau Campus

November 2013

Mission Area Analysis—UAS Career Education

The University of Alaska Southeast's (UAS) School of Career Education offers post-secondary workforce education and training in support of the UA System's role in building a future workforce for Alaska. UAS Career Education's programs extend back many years in the region, incorporating programs offered initially at community colleges in the region. Today, these UAS programs help fulfill President Gamble's *Shaping Alaska's Future* initiative which focuses on the importance of productive partnerships with public entities and private industries in building a workforce to sustain and grow Alaska's communities.

UAS Career Education supports this theme of building Alaska's future workforce. It does so by focusing on *student learning* and *student success*—key elements in our UAS mission. To fulfill this mission, UAS Career Education supports training and collaboration in partnership with industries vital to Southeast Alaska. Using facilities at the Juneau, Ketchikan, and Sitka Campuses, the School of Career Education specializes in Mining, Construction, Health Sciences, Power Technology, Fisheries Technology, Maritime and Multiskilled Worker training, Marine Transportation, and Welding. UAS Career Education provides training for high demand jobs. Programs offered by Career Education develop professional, community and industry leaders that serve both Juneau and all of Southeast Alaska.

The School of Career Education's primary role is to prepare students for productive employment by providing academic, vocational, and community interest courses. The School also assists students in the transition to college and the successful completion of their programs of study at all levels—from non-credit Workforce Certificates (WCs) and credit-bearing Occupational Endorsements (OEs), to Certificates and Associate degrees. The School's offerings are shown in Table 1:

Table 1: UAS School of Career Education offerings

WORKFORCE CREDENTIALS	OCCUPATIONAL ENDORSEMENTS	CERTIFICATES	DEGREES
Entry Level Miner Maritime & Multiskilled Worker	Automotive Technology Building Energy Retrofit Tech Diesel/Heavy Duty Tech Healthcare Information Tech Law Enforcement Marine Engine Room Prep Marine Transportation Mine Mechanic Power Technology Residential Construction Welding	Automotive Technology Drafting Technology Fisheries Technology Health Information Mgt-Coding Healthcare Privacy & Security Pre-Nursing Qualifications Pre-Radiological Tech Residential Building Science	Apprenticeship Technology Construction Technology Fisheries Technology Health Information Mgt. Health Sciences Law Enforcement Nursing (with UAA) Power Technology (Auto/Diesel/Mine Mechanic/Marine Oiler)

Career Education requires strong partnerships with the industries we serve. These partnerships are the backbone of strong and growing programs. These partnerships engage students, faculty, staff, communities, workforce development, professional development and academic success. Our partnerships help to keep our programs relevant to our students and area industries.

Examples of partnerships vital to UAS Career Education include: Hecla/Greens Creek Mine, Coeur Mining-Kensington, Alaska Department of Labor and Workforce Development, Alaska Department of Education and Early Development, Alaska Public Safety Academy, Alaska Marine Highway System, Southeast Conference, Key

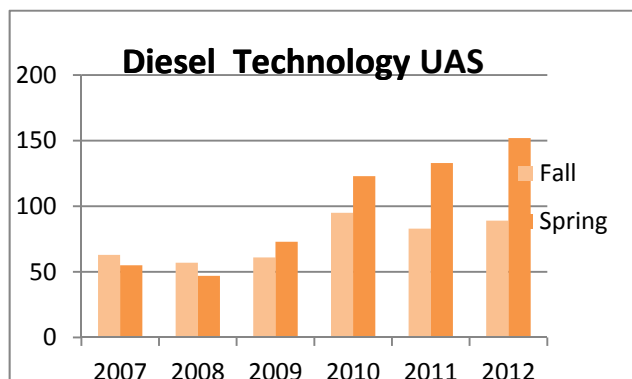
Bank, First Bank, Delta Fuel, NC Machinery, Tlingit-Haida Regional Housing Authority, Alaska Ship and Drydock, Silver Bay Seafoods, Sitka Sound Science Center, Juneau and Sitka Pioneers Homes, Wildflower Court, Bartlett Community Hospital, PeaceHealth, Southeast Alaska Regional Health Corporation (SEARC), First Student transportation services, Miller Construction, Dipsticks Auto Club, Mendenhall Motors, and more.

UAS Career Education programs align closely with the changing economy of Southeast Alaska. No longer dependent largely on government and timber alone, the region's economy is increasingly diversified—focusing on mining, seafood, the visitor industry, healthcare, timber, and government (*Southeast Alaska by the Numbers 2013*, Southeast Conference, 2013a). Between 2010 and 2012 the region grew by 2,800 people to a new record high of 74,423. The labor force increased by 1,800 jobs. Job earnings in the region increased by 10 percent over this two-year period. Some 280 new mining jobs were created, an increase of 50 percent. Nearly a million visitors came to the region, including an increase of 61,000 more cruise ship passengers. And, Southeast Alaska continued to expand its ocean-based economy: more than a quarter of all work-related income in the region comes directly from maritime employment: so-called “Blue Jobs” (*The Maritime Economy of Southeast Alaska*, Southeast Conference 2013b).

Statement of Need—Renovation of Juneau’s Technical Education Center (TEC)

The UAS Technical Education Center (TEC) at the Juneau Campus is located near downtown Juneau—adjacent to Juneau Douglas High School. The TEC was built in 1983 to be a Marine Center housing programs in boat building, boat restoration and boat repair. Activities in the TEC were expanded over the years to include Construction, Diesel, Auto, Welding, and recently Mine Training. Current space allocations at the TEC cannot accommodate the needs of our growing programs and serve the needs of our industry.

Renovation of the TEC will improve the layout of the building, expand Career Education’s ability to offer high demand trainings and classes, and increase safety and security of staff and the space. Of immediate need is expansion of Power Technology/Diesel lab facilities, used for mine mechanic training as well as training for heavy duty diesel and marine mechanics. The Power Technology program has seen dramatic increase in numbers requiring larger classrooms, larger lab spaces, additional sections, and newer, more technologically advanced equipment. These increases are due to partnership and scholarships coming from Hecla and Coeur, which serve both industry and students alike. Moreover, Power Technology has a mutually beneficial relationship with nearby Juneau Douglas High School. JDHS students walk across the street to take career education classes in the TEC, thereby building a solid career pathway from secondary-level education to post-secondary.



The TEC is home to the UAS Center for Mine Training, Southeast Alaska’s only mine training facility, where miners are trained in underground operations and MSHA safety courses. The Center’s Introduction to Mining Occupation and Operations class, offered online throughout Alaska, introduces high schools students to different aspects of mining occupations. This class has generated much interest and numbers will be continuing to grow. The UA Mining and Petroleum Training Service (MAPTS) funds Mining Safety and Health Administration (MSHA) classes every other week. These classes are for the “first time miner” and “refresher” courses. The increased attention of the Center’s classes has made additional space a priority.

The TEC is especially used by non-traditional students—those from a variety of age groups and socioeconomic backgrounds. It is a center for face-to-face classes, real-world lab scenarios and student advising. These interactions assist students as they grow in their knowledge of a variety of subjects that can be applied in a workplace environment.

The need in Juneau for quality career and technical education is growing. The expansion of the TEC will allow us to produce more graduates and to partner with local businesses and agencies. Regional growth includes expansion of the Greens Creek Mine Tailing holding area and continued exploration by Coeur at the Kensington Mine. These two mines employ over 500 people in Southeast Alaska and our partnerships have never been stronger. We continue to lead the industry in our supply of competent workers to these employers.

Juneau also has a broad and established tourism industry that is world renowned. Nearly 1,000,000 visitors came to our region in 2013. This industry frequently employs our students to service and repair busses, boats, charter vessels, and trucks. In addition, the City and Borough of Juneau along with state agencies require fleet maintenance and repair technicians of which our students are well suited.

We expect continued growth in construction technology and maintenance opportunities. The Tlingit-Haida Regional Housing Authority and RuralCAP Weatherization Program have routinely sought training for construction workers through UAS. This training and employment is due in part to the addition of monies contributed by Alaska Housing Finance Corporation to perform weatherization and energy efficiency upgrades for homeowners. Juneau has a strong tax base and yearly initiates infrastructure projects that need trained and skilled workers.

There is a high demand for locally trained employees in these fields, and our students often expect to be employed before completion of their field of study. With knowledge in their perspectives fields our students can expect good paying, long lasting careers. This demand has created an increased need for highly skilled and real world work experiences on equipment and in a work space that is held to a high industry standard.

Annual Operating Budget Impact

Funding these improvements will allow UAS to maximize the efficiency of this important building. The building's footprint will not increase but the quality and layout of instructional spaces and labs will be much improved. Expanded and reconfigured space will allow for safer and more secure working environment, and will allow staff and faculty to focus on their intended work rather than monitoring problematic building maintenance issues and building safety. We expect that the heating and utility upgrades, combined with state-of-the-art controls and insulation, will enable UAS to control utility costs and demonstrate our commitment to accountability for university assets.

August 16, 2013

TEC Conceptual Work Items

The following represents a general listing of potential work items to upgrade the TEC UAS complex. These items represent both interior renovation work packages to accommodate new program objectives, as well as upgrades needed to the building facility itself due to age or obsolescence.

The categories of work are arbitrary, but reflect the more logical program or facility needs that have been identified. An attached graphic identifies each of the following items with a numbered key.

Work Item 1 - New Mine Training Center Renovations - \$329,981

The Mining Training Program will be relocated to the area currently labeled as Plastics shop. The existing walls separating the Carpentry shop will be demolished along with all walls and equipment along the interior of the north wall. A new Mining Training Center entrance and vestibule will be created in the north wall. The entrance vestibule will have glass doors and relites for transparency. A new canopy will be built over the entrance to provide shelter as well as increased visual identity for the mine training center.

The vestibule, reception, office and mining computer lab will all receive new acoustic partition walls, carpet and drop ceilings with lighting. The new mine training class will retain its overhead door to the heavy equipment work space and leave the ceiling open to existing roof framing.

The mining heavy equipment bay and simulator space will include re-installation of the existing simulator. It will be placed in the southern part of the bay, with preparation for an additional identical simulator in the near future.

Work Item 2 – Relocation of Construction Tech Equipment - \$101,383

All existing equipment located in Carpentry/ Wood Shop will be consolidated and relocated to the new construction tech shop. This will require rerouting and modification to the dust collection system. The construction tech shop will remain open to framing above.

Work Item 3 – Spray Booth and Classroom - \$73,659

New partition walls will be placed to create Power Tech Class 2, Storage, Spray Materials room, and a Spray Booth. The classroom will receive all new finishes and a drop

ceiling with lighting. Mechanical work will consist of additional ventilation for the spray booth and classroom HVAC.

Work Item 4 – New Power Tech Lab - \$237,915

In the high bay all existing shelving will be demolished and the roll-up door along the southwest wall removed and filled in with standard framing. The existing pit in the storage area adjacent to Engine Cleaning will be filled with concrete to be flush with the surrounding floor. The walls of the existing Engine Cleaning room will be demolished and replaced to follow the step in the ceiling structure from 20ft to 11ft. New heavy duty shelving will be provided for engine storage along the walls of the high bay.

The New power tech lab will be open to the existing 20' roof framing and closed in with acoustically insulated partition walls. Mechanical work will consist primarily of altering HVAC to accommodate the new spaces

Work Item 5 – Power Tech Lab 2 – \$185,415

Power Tech Lab 2 will require demolition of the existing fence surround and office, as well as relocation of the existing mining simulator to the mining high bay. New partition walls will be placed in correspondence with the existing 12' ceiling outline to close in power tech lab 2 and the adjacent storage rooms, as well as the modified lobby hallway. Walls in these areas will be painted gwb, while floors will remain concrete. A new drop ceiling and lighting will be required in Power Tech Lab 2. Existing mechanical will remain in place.

Work Item 6 – Power Tech Class and Offices - \$200,176

The offices off the lobby will be updated with new finishes. A new door will be added in the middle office to access the Power Tech Class and the door in the office to the south will be relocated. The power tech class will receive new carpet and paint. Existing mechanical will remain.

The storage room adjacent to the southwest corner of the existing Mining Class will be remodeled into an accessible restroom. This will require some demo of the concrete floor to attach plumbing to the adjacent existing restrooms. New fixtures and finishes will be required.

Work Item 7 – Construction Tech Upgrade - \$102,991

The construction tech lab will remain open with a new fenced wood storage area in the northeast corner. A new exterior entrance with relites and a small canopy will be installed in the north wall to form a separate construction technology entrance. The construction tech class and construction tech room to the west will remain unchanged.

Work Item 8 – Remodel of 2nd Floor Restrooms - \$158,951

Work will consist of demolition of the existing restrooms and locker rooms to allow for a student lounge, storage space, and new restrooms. New partition walls, drop ceilings and lighting will be required. Mechanical work will consist of alterations to all existing restroom fixtures.

Work Item 9 – 2nd Floor Faculty Upgrades - \$163,165

Work will consist of demolition of the existing classrooms and hallway to allow for additional offices and storage space. All demolished and new walls are non-structural interior partition walls. New finishes will be required in all updated spaces as well as new ceilings, and lighting. Existing offices will receive new carpet and paint to match.

Work Item 10 – 2nd Floor Large Classroom/Computer Lab - \$133,959

Work will consist of demolition of the existing classrooms and hallway to allow for a new larger classroom. The large classroom will require a new moveable partition to divide the space into 2 smaller classrooms for periodic independent use. The entire classroom space will need comprehensive audio visual capability including the electrical support for use as a computer lab in the south end.

Work Item 11 – Mechanical Controls Upgrade - \$496,605

All mechanical controls in the building will be upgraded to Direct Digital Controls. See mechanical conceptual narrative for details.

Work Item 12 – Boiler Upgrades - \$177,903

Boilers will be replaced with new more efficient equipment. See mechanical conceptual narrative for details.

Work Item 13 – HVAC System Upgrades - \$117,930

Existing fans and exhaust system will be upgraded with new equipment. See mechanical conceptual narrative for details.

Work Item 14 – Compressor Replacement \$79,905

Existing compressor will be replaced with a new compressor. See mechanical conceptual narrative for details.

Work Item 15 – Marine Tech Lab Renovations - \$64,675

The North half of the welding lab will be remodeled to include a new classroom and storage rooms. The classroom will get all new finishes and lighting. The Marine Lab will be an open high bay space with new wall paint and new suspended lighting.

Work Item 16 – Welding Building Upgrades - \$143,479

Restrooms and janitorial will be remodeled to accessible restrooms with new fixtures. The Metal Storage room will receive a new exterior double door for ease of receiving welding materials. The storage containers existing south of the welding building will be relocated to free up access to the south face of the building.

Work Item 17 – Welding Equipment Upgrade - \$111,022

The welding lab will be refitted with updated equipment, partitions, and ventilation systems. Mechanical will provide details as known.

Work Item 18 – TEC Exterior Painting and Glazing Replacement - \$150,000**Work Item 19 – TEC Roofing Replacement - \$300,000**

One portion of the roof has been replaced within the last 7-8 years, representing roughly 20% of the roof area. Other areas of the roof have been in place for roughly 20 years, and will require replacement within ten years.

POSSIBLE– Electrical Upgrades - \$200,000 (place holder)

Study letter with Ben Haight underway. Current electrical costs are distributed throughout HMS estimate. Costs will be refined after receipt.

