Division of Design and Construction

Facility Modifications
(Fac Mods):
Understanding the Process
Mission of Facilities Services:

The Mission of Facilities Services is to provide safe, efficient, and expert support to the University of Alaska Fairbanks by operating and maintaining UAF's physical environment

• Constructing and renovating facilities
• Providing campus planning and engineering services
• Protecting the University's extensive property interests
• Providing a safe and comfortable environment to further the pursuit of academic excellence in teaching and research
Division of Design and Construction

Mission Statement
The mission of the Division of Design and Construction is to define, plan, and develop the infrastructure, land, and facilities to meet the university and community's needs as well as to effectively and efficiently provide engineering support for the maintenance, operations, design, and construction divisions of Facilities Services.
Division of Design and Construction

- Has Delegated Authority per Alaska Statute 36.30 to procure construction services to the University community.
- Is a recharge and is required to be financially self-sustaining.
- Does not receive funding from the general fund.
- Is similar to a Contractor in that a free (to the User) initial scoping visit is provided.
Facilities Services Web Site Screen Shot:

Electronic Work Order Request Form (EWORF)

Please contact the Customer Service Center at 474-7000 for additional information or assistance. Thank you!

Space Change / Facility Modification

Check here if there is a change in the size, shape, access, use, or assignment of this space, or if you are requesting installation of any equipment. 

[ ] Yes

Click for UAF Fac Mod Information

(This will become a "Facility Modification" request if the change box is checked "YES").

Events

If this is a UAF event:
- Click the link below - A new window or tab will appear in your browser - fill in the required UAF Events Request Form.
- When that is completed, complete and submit this form.

UAF Events Request Form
The Birth of a Fac Mod

Customer enters a Electronic Work Order Form (EWORF) on the Facilities Services Web Site. If the EWORF matches any one of the following criteria, it becomes a Fac Mod (the following four categories are Code driven):

> Change in Size/ Shape/ Access
> Change in Assignment
> Change in Use
> New Equipment

The EWORF is converted to a Fac Mod, assigned a number and forwarded to DDC for evaluation and processing.
**Typical Fac Modds:**

- Remodeling Offices and Labs
- New modular furniture, cubicles
- Preparing areas for new equipment
- New doors and or windows
- Heating, ventilating and air conditioning upgrades
- Electrical upgrades
- ADA doors and ramps
- Installing flat screen monitors
- Coordinating new communication and internet installations

**Typical Maintenance:**

- Installing new carpet or tile at worn areas
- Replacing electrical outlets that are dangerous or inoperable
- Replacing broken or malfunctioning door hardware
- Replacing broken windows
- Too hot/too cold calls
- Plugged drains/toilets
- Burned out light bulbs
- Painting, as necessary
- Responding to reported leaks
The Difference between a Fac Mod and a Project:

- A Fac Mod is initiated when an EWORF is submitted and meets the criteria indicated.
- A Project is established when DD&C is involved directly with the User, without going through the Fac Mod process.
- A Fac Mod can become a Project by virtue of its scope and complexity.
- Converting a Fac Mod to a Project typically means that the project will go out to bid.
Equipment Acquisition Checklist:

-UAF Purchasing uses this form to determine if you need to contact Facilities Services prior to placing an order for your equipment (UAF Procurement buys Items, DD&C procures Architectural and Engineering services and Construction)
Fac Mods From 30,000 Ft.
Facility Modifications- Per Year:

- FY 2007 = 78
- FY 2008 = 94
- FY 2009 = 100
- FY 2010 = 42
- FY 2011 = 16

(As of 2-10-11, with approximately 4.5 months remaining in FY)

Why the variance?

- Departments finances and needs fluctuate by FY
The Fac Mod Process

Simplified
Fac Mods Process Mapped

Typical Facility Modification (FMOD) Process

- Review w/ UFM @ bi-weekly FMOD meeting; Schedule site visit.
- EWORF Submitted FMOD? EWORF?
  - EWORF to shops for resolution (Non-Fac Mod)

- Site visit

- DDC manager, FE's, UFM, & Maint visit site & provide user with order of magnitude project cost

- User Feedback Process?
  - YES
    - User provides start-up fees - TBD
    - INTERNAL Consultant or Internal Design
  - NO
    - FMOD DOA

- Consultant or Internal Design

- Site visit w/ consultant to prepare proposal
- Add consultant proposal to 1 pg budget forward TPC with form to user
- User OK's project?
  - YES
    - FMOD DOA return unused funds to User
  - NO
    - User Feedback Process?
      - YES
        - Create PA execute design
      - NO
        - FMOD DOA Close out PA

- Shops or Contractor?
  - To Shops
  - Bid

- User Feedback Process?
  - YES
    - FMOD DOA return unused funds to User
  - NO
    - Bid

Notes: 1. Required if construction is estimated to be over $50K or is complicated/involves code design.

Acronym Key:
- UFM - University Facility Managers
- EWORF - Electronic Work Order Form
- FMOD DOA - Facility Modification DOA
- DDC - Division of Design & Construction (Facilities Services)
- FE's - Facilities Engineers
- TPC - To Be Determined
- PA - Project Assignment

February 25, 2010
UAF CONSTRUCTION PROCESS (Non-Fac Mod: Full Design to Construction)

**PRE-DESIGN**
- Project Initiation & Concept Development
  - Project Manager Assigned
  - Meet with user
  - Feasibility Review
  - Order of Magnitude Estimate
  - Start Process for Planning Funds Determination
- Program Planning
  - Consultant Selection & Agreement
  - Prepare Program Plan
  - Prepare BOR Formal Project Approval
- Architect Selection
  - RFP
  - Prepare, Review, Publish Shortlist/Interviews
  - Contract
  - Transfer/Verify Funding
  - Negotiate
  - Reviews (legal)
  - Signature Authority
  - Architect’s Info Pkg. Sent
  - Include UAF Standards
  - Design Team Formed
- Schematic Design (35%)
  - “Kick-off” Meeting
  - Conceptual Design
  - Review Meeting
  - Initial First Look Estimate
- Design Development (65%)
  - Plans Enhanced, Outline Specs
  - 2nd Estimate, Cost Control
  - FSs/ DD&C 2nd Review and Design Approval
  - Project Mgr Confirms Contract Manager
  - Review Meeting with Project Group
  - BOR Schematic Approval
- Construction Documents (95 – 100%)
  - Complete Plans, Specs, Final Estimate
  - Second CD Review
  - Plans Signed-off
  - CAD Disks of 100% Files
  - Other Campus Reviews

**CONSTRUCTION**
- Contracting
  - Advertise
  - Issue Approved CD’s Bid Opening
  - Notice of Award
  - Contracts
    - Legal Counsel
    - Signing Authority
    - Notice to Proceed
- Project Construction
  - Issue Permits
  - Pre-construction Conference
  - GC Begins Construction
  - Purchase Owner-supplied Equipment Inspections
    - Building
    - Mechanical
    - Electrical & Telecommunications
    - Plumbing
    - Fire Protection
    - Site Utilities (varies)
  - Contract Administration
  - Shop Drawings Reviews
  - Cost Management
  - Change Orders
  - O + M Review & Approval
  - System Start-up and Commissioning
- Project Close-out
  - Punchlist (Inspection Agency)
  - Room Signs and Locks Training
  - Substantial Completion
  - Issue Certificate of Occupancy
  - Final Inspection
  - Univ. Property Returned (keys, cards)
  - Pre-close-out
    - Review and Approval of Field & Shop Drawings
    - Repair, service, surplus materials Stored
    - Final As-built Documents Submitted
    - O + M’s (4)
    - Record Specifications
    - As-built Drawings
    - CAD Files
    - Field and Shop Drawings
    - Final Documents Verified/Archived
    - CAD Databases Updated
    - Post Construction Evaluation
    - Warranty Period
      - 6 month Review
      - 11 month Review

ACRONYM (LEGEND)
- CAD: Computer-Aided Drafting
- CFO: Chief Financial Officer
- FM: Facilities Management
- GC: General Contractor
- O + M: Operation and Maintenance
- RFP: Request for Proposal
- VC: Vice Chancellor
- CDs: Construction Documents
Site Visit

Fac Mod Evaluation Group meets at User’s proposed project site.

Attendees are:

- University Fire Marshal (evaluating fire code applications)
- Mechanical Engineer (evaluating mechanical applications)
- Electrical Engineer (evaluating electrical applications)
- Maintenance Staff (evaluating if the shops will quote work)
- Fac Mod Manager (coordinating the evaluation group and the process)
- University User/ Fac Mod Initiator
Site Visit (Continued):

- Others as required (Safety, Security, Haz-Mat, Asbestos Shop, OIT, etc…)
- Group examines scope and viability of project to address all known issues at that time and to (if possible) develop an order of magnitude estimate for the user to decide whether the project is within their budget.
- If additional research beyond a cursory review is required, DD&C will request that the User fund the effort to obtain a detailed estimate.
- And/or prepare the Fac Mod for conversion to a project.
- This initial Fac Mod Site visit is at no cost to the User.
Estimating Factors

- Fire Codes
- International Building Code
- Mechanical Codes
- Electrical Codes
- University Design Standards
- ADA
- Safety and Security
- UAF Master Plan
- Project complexity
- Project location
- Age of facility
- Institutional Quality of Construction (I.E.: commercial, not residential)
- Sustainability/ Environmental Impact
- Historic construction square foot
Breaking out an estimate

- Project scope is evaluated.
- Cost per square foot is determined based on project type (office, lab, classroom, utility, warehouse, etc…)
- Cost per square foot is then multiplied by project square foot area
- Design fee, in-house or contracted, is added
- DD&C Direct Management costs are added to the estimate to cover:
  - Salaries and wages (managers, administrative staff, engineers)
  - Vehicles
  - Office expenses (space lease, supplies, equipment, computers, phones, etc.)
- Depending on level of estimate, a construction contingency of 10-20% is added.
- The University Fire Marshal review fee is added. This is calculated per State of Alaska Administrative Code AAC 13AAC50.027. For example, a project with a $50,000 construction amount would have a plan review fee of approximately $700.
- Parking fee is added, if applicable (for contracted work)
After Initial Site Visit You Will Receive One of Three Types of Estimates:

**Estimate Type One:**

From FS's Shops

Project Estimate

(Shops do work on a time and material, not to exceed basis.)

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### DEPARTMENTAL ESTIMATE SUMMARY

**Facilities Services Maintenance & Operation Division**

- **P.O. Box 757380**
- **Fairbanks, Alaska 99775-7380**
- **(907) 474-7000**
- **FAX: (907) 474-2481**

**Date:** 02/01/10

**Building:** Skarland Hall  
**Area/Location:** Various areas

**Brief Description:** Estimate for all labor, material and equipment for the abatement of ACM in specified areas.

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</table>

**GRAND TOTALS:**

- **$17,280.00**
- **$400.00**
- **$4,420.00**
- **$22,100.00**

**Notes:** Some ceiling deco may be required that is not included in this estimate.

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**FB Maintenance & Operation Director Approval:**

**DEPARTMENT APPROVAL (Circle One)**

- **Accepted**
- **Denied**

**Proceed with project per estimate on account # (org & fund) 193010 71046.25 12/11/09**

**Comments:**

- Start abatement on April 19, with non-destructive, X-radiation cleanup and abatement. In December, we will have full funding. Contact Sector.

**Name (please print):** Scott Holmgren

**Authorizing Signature:**

**Date:** 2-4-10

**NOTES:**

- Your office MUST complete the department approval section above and fax this form back to Facilities Services at 2401 before work will be scheduled.

- This estimate is valid for only 3 months from the date on the top of this form.
Estimate Type Two:

From DD&C Scoping Estimate (Contractor does work)

In some instances, a 100% estimate is forwarded when the scope is fully defined and a Contractor quotes the work.

Division of Design and Construction
560 University Avenue
P.O. Box 758160
Fairbanks, Alaska 99775-8160

TO: User
FROM: DD&C
DATE: December 19, 2010
RE: Facility Modification FMOD-08-119, 35% Estimate

We have reviewed your request to modify your facility. In order to proceed, we request that you review & approve this cost estimate for our *DDC Design Costs. Once approved, we will continue to the 100% estimate phase; which is to complete the design work and proceed to a further refinement of pricing and estimating the work, from the 35% estimate indicated below.

Scope:

Project Cost: *DDC Design Costs $ Construction Cost $ Construction Contingency $ University Fire Marshal Review Fee $ DDC Direct Management Costs $

TOTAL PROJECT COST $

The total project cost is only an estimate and actual construction costs may differ. This estimate is applicable for 30 days and subject to change. If approving this estimate, please return by fax to X-7554, UAF Facilities Services, Division of Design & Construction,

Approval: __________________________ Date: ____________

Fund/Org number: ___________________ Amount: ____________

XC: Facmod file
MF, RJM

5:\PROJECTS\FacMod\Forms\35% Est SAMPLE.doc
Re: O'Neil 147 Design funding request

Scott Heldorn <swheldorn@alaska.edu>
To: Greg Simpson <gsimson@alaska.edu>
Cc: Reed Morisky <rmorisky@alaska.edu>

Mon, Feb 1, 2010 at 2:14 PM

Greetings Greg,

Just following up on our discussion last week. At that time we reviewed the departments proposed scope of work for lab 147 and the need for departmenal funding to design and develop the project further. Additionally we discussed the departments desire to have this project started right away in order to meet the needs of new research staff.

To help the department stay on track please keep in mind it can easily take 3-4 weeks to design a project, complete the code review and acquire Fire Marshal approval. At this point we can order casework and other equipment. The typical lead time for case work to arrive in Fairbanks is 8 weeks with another 2-3 weeks to install the cabinets and counter tops. In total we are looking at 14 to 16 weeks to complete the project from the date we receive design funding.

Please let me know if you have any questions.
Scott

Scott Heldorn wrote:

Greetings Greg,

Our meeting in 147 today was very constructive. I look forward to working with the department to develop a useful lab for the researchers. Outlined below are a few more consideration that came to light after our meeting.

Walk in Cooler:
I reviewed the project scope with DDC staff and it was pointed out we will need a dry sprinkler head installed inside the cooler and depending on how tall it is we may need an additional head over the top of it. The cooler is also quite old so we need to have it inspected prior to consideration for re installation. In addition the department needs to provide manufacturer specification for the model of cooler and the electrical and refrigeration requirements. Other issues we need to consider are the heat rejection and the noise. As you know noise easily travels from room to room in O'Neil and cooler compressors are generally very noisy.

Ductless Fume Hood
To proceed with the ductless fume hood purchase we require a signed copy of the UAF Chemical Hygiene Plan for lab 147. This plan will specifically address the chemicals used in the lab and is necessary for selecting the correct ductless fume hood.

In addition to the information requested above we require the spec sheets for the curtain (with the proposed dimensions), the ductless fume hood model and filter types and the proposed floor plan.

Finally, in order to proceed beyond this point I will need an account number with $5000 available for design. Design work includes on site meetings with engineers and trades as well as mechanical, electrical and code review and design, hazard review, product analysis and selection and floor plan sketches as needed.

Please let me know if you have any questions.
Scott

- UAF Facilities Services -
University Construction Vs. Red Green
Your House

- Non-prevailing wage construction (non-Davis-Bacon)
- Minimal or no code compliance
- Level of materials and workmanship is not to institutional quality
- Not required to comply with a Master Plan (but possibly neighborhood covenants)
Typical Big Box Store “Fine Print”:

- Price may vary after (This Date) if there are market variations.
- We reserve the right to limit quantities.
- Unintentional errors may occur.
- Prices available while supplies last.
- Installation does not include cost of products to be installed.
- Local disposal fees, caulking around openings and insulation, is not included.
- Installation price is only valid for single-family residential properties and cannot be used on multi-family and/or commercial properties.
- Additional charges apply for metal frame removal, removal of storm windows, wrapping and capping of trim and necessary repairs to window openings, etc…
- Mandatory in-home measurement fee is required.
- Additional charges may apply.
- Price does not include customization.
- Offer may not be available in your area.
- We reserve the right to correct any error.
Points of Interest...

- Facilities Services/ Division of Design and Construction has received delegated Authority from the Board of Regents to procure and manage construction for the University community.

- All lands and facilities are owned by the University of Alaska. Individuals and Departments occupying facilities are tenants and are subject to Regents Policy and State law.

- The University is responsible to their employees and the public to provide safe, secure, legal and code compliant work areas and facilities.

- Contracting of construction work by UAF departments (other than DD&C) is a violation of State of Alaska Statute 36.30 and UA Regents Policy. Additionally, construction work (including demolition) by UAF affiliated individuals or Departments, outside of Facilities Services, is prohibited.

- For proposed work in leased space, contact Facilities Services, Real Estate Division
A Bid and an Estimate are not the same thing. An Estimate is a guess at what something may or may not cost. A Bid is a fixed price that a contractor can be contractually and legally bound to.

Users count on estimates to be utilized for a financial decision. Requesting a “rough estimate” or an “un-official estimate” without conducting the required research may be counter-productive. Your DD&C Manager will work with you to conduct a stable process where a reliable estimate can be methodically determined.
Points of Interest... (continued)

- Anecdotal information derived from ‘someone in the construction community’ is not necessarily something you can count on to assist in determining the feasibility or cost of your project.

- Comparing the cost of a house to a commercial project completed on a governmental facility, is an exercise in futility. When a typical single family home is built in the FNSB, prevailing wage does not have to be paid, sprinklers do not need to be installed, certain codes are not applicable, etc... Additionally, a residence is not constructed for commercial use and the materials and construction tolerances are of a correspondingly loose nature.

- Economies of scale; a small Fac Mod will cost more per square foot than a large Fac Mod.
In Conclusion...

• We are here to assist you in your Fac Mod and project needs.

• We are mandated to follow codes, State Law, BoR Policies, etc…

• Your involvement and understanding help assure a successful outcome
Division of Design and Construction

We look forward to assisting you with your Facility Modification

Questions? Comments?