FORMAL PROJECT APPROVAL

Name of Project: Toolik Field Station 2012 Capital Improvements
Project Type: New Construction
Location of Project: UAF, Toolik Field Station, Alaska
Project Number: 2013032 TLCI
Date of Request: August 14, 2012

| Total Project Cost: | $ 8,000,000 |
| Approval Required:  | Full BOR    |
| Prior Approvals:    | None        |

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 Fairbanks Toolik Field Station 2012 Capital Improvements, as presented in compliance with the approved campus master plan, and authorizes the university administration to proceed through project completion not to exceed a total project cost of $8.0 million. This motion is effective September 27, 2012.

Project Abstract
There are four projects currently planned as part of the capital improvement program for Toolik Field Station (TFS). They are a combination of housing, science and support facilities that are needed to support the research at TFS. It is anticipated that funding will be phased and Schematic Design Approvals will be requested for each individual project as funding is identified. It is anticipated that funding will occur over a 2-4 year period for all of the projects.
Background

The University of Alaska Fairbanks Toolik Field Station (TFS) is located in the northern foothills of the Brooks Range in Alaska on the southeast shore of Toolik Lake, 254 km north of the Arctic Circle adjacent to the Dalton Highway. TFS is managed and operated year-round by the Institute of Arctic Biology (IAB) and provides housing, meals, laboratory and science-support for the research and education programs of 300-400 scientists and students each year. TFS users come from the University of Alaska and 50-60 other universities, institutions, and agencies primarily conducting ecological, physiological, biogeochemical and hydrological research related to biological adaptation to high latitude environments, the structure and function of arctic ecosystems, and responses of the Arctic to climate change and its feedback to the Earth’s system. TFS is an international facility that receives core operating support through a cooperative agreement (CA) from the Arctic Division in the Office of Polar Programs of the National Science Foundation (NSF). The CA is in its third five-year award ($16.2M) that continues through 2016. In addition to the base support, science users pay an additional daily fee of $87. Buildings, facilities, and core equipment at TFS sit on land leased to UA by the Federal Bureau of Land Management and are either owned by UAF or the NSF and are maintained by CA supported staff and by staff provided by CH2M-Hill-Polar Services, NSF’s arctic logistics provider.

Although the NSF and TFS have been planning for facilities improvements for some time, the National Ecological Observatory Network (NEON) initiative is the primary driver for funding and schedule. TFS was selected as a core site for NEON and there is a need for additional facilities to support NEON activities which will occur year round.

Project Scope

The projects are listed in the order of funding priority. These projects and resulting operating costs are all funded through the National Science Foundation (NSF).

Dormitory:
The dormitory will be a 2-story structure, and will consist of a central core space and two wings. The core space will contain bathrooms, laundry, and common areas. The wings will consist of sleeping rooms (24 rooms per wing). Each room will have capacity for two bed spaces. Total potential bed spaces in the dorm will be 96. The total area of the facility is approximately 16,000 sf, at an estimated total project cost of $4,000,000. A rendering of the dorm is included in the reference material.

The dorm will be located approximately 100’ northeast of the new Dining Facility, in the residential area of camp. The construction will be modular, with significant pre-fabrication done off-site to reduce on-site labor costs. This will also minimize the disruption of research during the busy summer season. The dorm is designed to allow for winter shutdown of one or more wing floors when camp population is low, to reduce energy usage.

Garage:
The garage will be a 3-bay structure, approximately 3700 sf. The garage will be located north of the existing generator modules, near the entrance to the camp. The garage will provide heated
space year-round for storage and maintenance of critical equipment. It will also be used for staging of science equipment. Total project cost is estimated to be approximately $1,500,000. A drawing of the garage is included in the reference material.

The garage will include capacity to store the camp loader, an emergency vehicle, and snowmachines. It will have a bridge crane, tire repair equipment, and an exercise area. The construction will be modular, with significant pre-fabrication done off-site to reduce on-site labor costs. This will also minimize the disruption of research during the busy summer season.

Laboratory:
The laboratory will be located west of the new Dining Facility. The lab will be designed to allow for use by the maximum number of researchers. The design will be somewhat generic so that the lab can accommodate various science projects over its lifetime. The configuration and size has yet to be determined, but will be approximately 2,000 sf. Total project cost is approximately $1,500,000.

The construction will be modular, with significant pre-fabrication done off-site to reduce on-site labor costs. This will also minimize the disruption of research during the busy summer season.

Bungalow:
The bungalow is a single-story structure, with 12 sleeping rooms. Each room is sized for two bed spaces, for a maximum potential occupancy of 24 beds. The total area of the bungalow is approximately 2,300 sf, at an estimated total project cost of $1,000,000. A rendering of the bungalow is included in the reference material.

The structure is designed for year-round operation. There will be outhouses as part of the structure, but there will not be running water in the facility. The construction will be modular, with significant pre-fabrication done off-site to reduce on-site labor costs. This will also minimize the disruption of research during the busy summer season.

Variances
None

Special Considerations
None

Total Project Cost and Funding Sources

| Total Project Cost | $8,000,000 |

All funding will be from the NSF with approximately $5,000,000 from the NEON program and the remaining $3,000,000 from annual NSF capital funds.

Annual Program and Facility Cost Projections

After construction, the new facility will be owned by NSF. Maintenance will be provided by the NSF Arctic Logistics Contractor, CH2M Hill Polar Services. NSF is the primary agency funding
research at Toolik and they provide all of the O&M funding, some via the Cooperative Agreement and the remainder from researcher per diem. UAF operating funds are not used at TFS.

**Project Delivery Method**
Procurement will be performed by the NSF Arctic Logistics Contractor (CH2M Hill Polar Services). It is anticipated that it will be a best value procurement using a combination of price and qualifications based on a prescriptive set of bid documents.

**Affirmation**
This project complies with Regents’ Policy.

**Supporting Documents**
- Drawings
TOOLIK DORMITORY
TOOLIK FIELD STATION, ALASKA

PREPARED FOR
NATIONAL SCIENCE FOUNDATION
JULY 2012

VOLUME 3 - DRAWINGS
GENERAL NOTES:

A. SEE 2000:1 & 2000:2 FOR EXTERIOR ELEVATIONS.
B. SEE ENLARGED PLANS FOR PARTITION TYPES, WINDOW TYPES, AND DOOR TYPES.

KEYED NOTES:

1. XXXX