University of Toronto

Office of the Assistant Vice-President, Campus and Facilities Planning

TO: Planning and Budget Committee

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AGENDA ITEM: 6

ITEM IDENTIFICATION:

Report of the Project Committee for the Interdisciplinary Design Studios and Graduate Student Expansion Within the Department of Civil Engineering and the Lassonde Institute

JURISDICTIONAL INFORMATION:

Under the Policy on Capital Planning and Capital Projects, the Planning & Budget Committee reviews Project Planning Reports prepared for a capital project and recommends to the Academic Board approval in principle of the project.

BACKGROUND

Located at the main gates of the University of Toronto St. George campus, the Mining Building is one of the original buildings of the University of Toronto's Faculty of Applied Science and Engineering and in 2005 celebrated its 100th anniversary. Today, the Mining Building hosts the Undergraduate Lassonde Mineral Engineering Program and the Lassonde Institute for graduate research in Engineering Geoscience as well as the Department of Mechanical and Industrial Engineering and the Institute for Biomaterial and Biomedical Engineering (IBBME).

The attic of the Mining Building, currently unusable space, has been identified as a potential location for the Faculty's proposed Interdisciplinary Design Studios within the Department of Civil Engineering, the Lassonde Mineral Engineering Program and the Lassonde Institute. These design studios are to address the pressing needs for additional facilities in support of undergraduate and graduate expansion programs, be used to promote interdisciplinary activities in engineering geoscience and urban engineering design and to enhance the student learning experience.

Recent accreditation visits and an External Review of the department supported the need for greater space to conduct the teaching and research functions of the department and to meet the needs of planned expansion in undergraduate and graduate enrolment. The renovation of the attic space will not only accommodate the design studios but also provide much needed graduate student offices, a seminar room and administrative space. The proposed renovation of the Mining Building will give Canada's mining business capitol a new education and research hub and foster growth toward providing solutions to the industry's pressing needs.

A Project Planning Committee was established in December 2004 and in May 2007 the Faculty submitted an Interim Report to the Accommodation and Facilities Directorate and sought approval for the allocation, in principle, of the attic space in the Mining Building to the Department of Civil Engineering as the location for the department's Interdisciplinary Design Studio. Approval was also given at that time to engage a consultant to further investigate the structural, building code, and other feasibility aspects of the proposed attic renovation, the creation of an accessible entrance off King's College Road coupled with an elevator servicing every floor, to improve the accessibility to the Mining Building and to produce a conceptual design. The team included a heritage consultant to report on the condition of this designated building and construction cost estimates were also prepared for the basic project plus required restoration/repair work.

In January 2008 the consultants submitted a feasibility study and concept plan to locate the Interdisciplinary Design Studios within the unfinished attic space of the Mining Building. Their work has informed the conclusions and recommendations of this Project Planning Report.

HIGHLIGHTS

The Interdisciplinary Design Studios will be recognized with a clearly defined physical presence and provide an innovative and dynamic space for undergraduate student learning and graduate student research. It is envisioned as a vibrant space aimed to be an architectural icon in a historic building with an exciting juxtaposition of modern and historic.

The proposed space program is comprised of a series of rooms intended to provide the best opportunities for teaching and learning design engineering, promoting interdisciplinary research and innovation convergence. The facility will create an environment which supports full implementation of the studio method of design education. The foundations of this method, which is practiced in schools of architecture and the great European schools of engineering, are learning through doing, constant informal interaction with peers, and frequent critique of work in progress by teaching staff.

Based on an initial assessment of the attic area, the plan is to develop the space for approximately one hundred students. This would allow the studio to be dedicated to the fourth-year design project, and would enable each of the fourth-year students to use the studio as their "home base" for the entire year. In addition the space will provide graduate student offices to accommodate graduate student expansion and a convergence area for researchers and industry to collaborate on joint projects.

The renovation of the attic space in the Mining Building presents an opportunity to put the Department's commitment to the development and maintenance of environmental strategies aimed at enhancing university property, as well as the global environment, into practice. The principles of environmental sustainability are to form an integral part of the design and implementation of this renovation. The total project cost estimate allows for environmentally sustainable choices in construction methods, materials, furniture and furnishings.

The proposed project will improve accessibility in the building by making the building fully accessible. It is proposed that an interior elevator shaft be created immediately to the North of the West stair with no impact to the exterior appearance of the building.

The project will result in the temporary relocation of several occupants during portions of the construction period (735 nasm) and the permanent relocation of others to allow for the creation of the elevator shaft (140 nasm). Discussions will be conducted with the Dean, Chair of Civil Engineering, Director of the IBBME and the Chair of Mechanical and Industrial Engineering to determine a suitable schedule and relocation options. It should be noted that the temporary relocation will be of significant benefit to the occupants as the spaces will receive new lighting and sprinkler system and will be cleared of existing asbestos.

The Mining Building is currently a designated building in the Inventory of Heritage Properties on architectural grounds for its importance as a major work of Edwardian Classicism. As a designated building any changes to the exterior of the structure will be reviewed by the Heritage Preservation Services of the City of Toronto. A heritage consultant was engaged as part of the feasibility study to ensure that any changes would be handled with sensitivity. It is likely that as part of the permit process, the City will require a heritage easement agreement.

FINANCIAL AND PLANNING IMPLICATIONS

The estimated total cost of the attic renovation, elevator installation and all associated work is $10,065,000 if tendered as a lump sum in the spring of 2009. Currently this amount includes allowances for asbestos abatement and an allowance for relocation costs for building occupants who will be either permanently or temporarily displaced by the work, for which a plan is being developed.

As part of the feasibility study a review and assessment of the condition of the building envelope was undertaken to identify items of restoration and maintenance and their related costs. The west half of the roof was identified by the consultants, reviewed by Facilities and Services and classified as “high priority” requiring immediate attention. It is in need of replacement and the associated soffits and eaves troughs in need of repair. This should be done in conjunction with the attic work and the installation of glazing. The estimated total cost for this work is $2,085,000 if done at the same time as the other construction. The total estimated cost is therefore $12,150,000.

FUNDING SOURCES

A commitment of $4 million has been secured, and discussions are advanced for the balance that is required. The funding arrangements will be finalized before Business Board approvals for commencement of the work.

SCHEDULE

The project will proceed with implementation once funding commitments are in place. It is expected that occupancy can be achieved 24 months after consultants are retained.

RECOMMENDATIONS

It is recommended that the Planning and Budget Committee recommend to the Academic Board:

1. THAT the Project Planning Report for the Civil Engineering Interdisciplinary Design Studios be approved in principle

2. THAT the project scope, comprising renovations to approximately 632 net assignable square meters and 1,129 gross square meters be approved with a total project cost of $10,065,000 and high priority repairs to the exterior of the Mining Building estimated to cost approximately $2,085,000, for a total project cost of up to $12,150,000 be approved.