



**TO:** Planning and Budget Committee

**SPONSOR:** Elizabeth Sisam, Assistant Vice-President, Campus and Facilities Planning

**CONTACT INFORMATION:** 416-978-5515; [avp.space@utoronto.ca](mailto:avp.space@utoronto.ca)

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**AGENDA ITEM:** 9

**ITEM IDENTIFICATION:**

Project Planning Report for the Physics Research and Instructional Laboratory Revitalization in the McLennan Physical Laboratories Building

**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**

This project will renovate existing laboratories and related support facilities in the McLennan Physical Laboratories Building bringing necessary upgrades to obsolete facilities that are approximately 45 years old. The facilities and dated infrastructure will be renewed, taking advantage of the large capital equipment investments accommodated in close proximity. The first phase of renovations was completed in 2008. This second phase is being submitted for funding under the Federal Knowledge Infrastructure Program, identified as the St. George Laboratory Revitalization for Physics and Chemistry.

**HIGHLIGHTS**

The Department of Physics is located in the McLennan Physical Laboratories building located at 255 Huron Street, and occupies approximately 12,500 nasm. This project consists of renovations to infrastructure, upgrades to student teaching and amenities space, as well as aesthetic and functional upgrades to aging, existing spaces.

The renovated facilities will improve capacity of both teaching and research laboratories, and increase the utilization of nearby research equipment. The facilities will be used jointly by undergraduates in Physics, Engineering students in Materials Science, and Nanotechnology in Undergraduate Research courses, along with graduate students and faculty. The new labs will be designed to support small group experiences within an interactive and integrated experimental, theoretical and computational environment. In addition, the renovation will create isolated areas for proprietary research and incubator space. The revitalized space includes significant improvements to:

- Laboratory space for faculty, graduate students, and post-doctoral researchers
- Laboratory space for senior undergraduate research courses
- Isolated areas for proprietary research
- Incubator space
- Laboratory space for the Institute for Optical Sciences

The need to upgrade the HVAC system throughout the basement of the McLennan Physical Laboratories building is of the utmost urgency. There is currently a high-humidity issue within the basement laboratories, which causes serious problems for those using lasers in their research labs. In addition, the temperature fluctuates to such a degree that research is halted for 2-3 weeks each spring and fall as the lasers are unusable during these times, creating delays in research as well as thesis work.

Implementation of this project will also address other items, such as deferred maintenance.

This project creates five new undergraduate teaching labs, a large student centered study/tutor/technical support area, as well as upgrade services to the building to support research needs and to create a more environmentally conscious approach to building infrastructure systems.

## **FINANCIAL AND PLANNING IMPLICATIONS**

The total estimated project cost for the proposed renovations of the Physics Research and Instructional laboratory Revitalization is \$7.5 million

## **FUNDING SOURCES**

This project is being submitted under the Federal Knowledge Infrastructure Program, identified as the St George Laboratory Revitalization for Physics and Chemistry. The Ontario government, in its budget of March 26, 2009, affirmed commitment to matching federal capital infrastructure investments in the Knowledge Infrastructure Program. No borrowing is required.

## **SCHEDULE**

The project will proceed with implementation once funding commitments are in place. The project will be materially complete by December 31, 2010.

## **RECOMMENDATIONS**

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

1. THAT the Project Planning Report for the Physics Research and Instructional laboratory Revitalization in the McLennan Physical Laboratories Building be approved in principle.
2. THAT the project scope, comprising renovations of approximately 4,514 net assignable square meters at a total project cost of \$7.5 million be approved, subject to the receipt of funding.