

Chemistry West - A Case Study

A Strategic Long Term Approach to Deferred Maintenance

GOOD NEWS

2010-2011

Deferred Maintenance

I am pleased that we are able to maintain the momentum established when major strides taken over the past ten years improved condition, functionality, and sustainability of our existing facilities. Our previous *Good News* brochure featured this 10-year period and highlighted how we achieved these major strides. Thanks to continued support from government and other funding partners, along with an innovative, systematic and strategic approach to project prioritization, we have been able to make further gains during the past year.

We are excited to share some of the highlights of the past year's success stories in key buildings, where major maintenance and upgrading work have made measurable and testifiable improvements in condition and functionality of important teaching, research, and administrative space.

Don Hickey
Vice President (Facilities and Operations)

 UNIVERSITY OF ALBERTA
FACILITIES AND OPERATIONS

fire alarm system; and upgrades to the building interior electrical systems.

In 2010, additional funding was provided by the Government of Alberta to address the building's exhaust air system and improvements to the building envelope. Partnering Provincial funding with funding from the Federal Government's Knowledge Infrastructure Program, allowed the renewal program to expand directly into major modernization/renewal of lab floors. As a result of the prior years' work to complete the base system renewals, this project was able to take place within available timelines and budget. The renewals have brought the space within the existing facility to a significantly improved level. This has allowed the Faculty to pursue opportunities for donor funding and demonstrated what can be done when a plan is established and followed through over the long-term.

... I fondly remember countless hours spent discussing how best to modernize Chemistry West. I notice from regular news floating around Chemistry that you have pulled off several major upgrades and I wanted to take this opportunity to congratulate you and your team members for the work that you have done (air handling, windows, new labs, and office space). I still find it amazing that you were able to use Chemistry West as sort of a poster child for lobbying the Provincial government. Again congratulations for all of your hard work bringing portions of an old building into the new world....

Tom Brisbane, Former Asst. Chair

.... The new space consists of a modern redesign of the floor plan, with research office space separated from but attached to the labs, a high density of fume hoods allowing all research work and reactions to be conducted in a safely ventilated manner, and modern, modular bench space for instrumentation. A collaborative, modern environment has been designed for theoretical chemistry research, with meeting spaces and quiet breakout rooms. A fresh, welcoming office design was created for Undergraduate Student Advising and mentoring ...

Professor Jed Harrison
Chair, Chemistry



In 2003, the University of Alberta identified that a strategic, long-term approach had to be taken in order to deal with limited funding available to address deferred maintenance.

Chemistry West was selected as the facility for a case study trial that would see the upgrading of the central core mechanical and electrical systems serving the facility; with a long-term view of renewing and readying the central systems (bones of the facility) to allow for a major renewal/repurposing of interior space when funding became available.

Between 2003 and 2008/09, deferred maintenance funding was directed at projects that renewed mechanical/electrical infrastructure and supported select teaching/research lab upgrades. During this period, the following facility systems were renewed: building interior lighting; elevator upgrades; a new domestic water system with separation of lab water from potable water; new waste lines; upgrades to building ventilation; installation of a plug load cooling system; upgrades to the building



Renewal HUB Mall

- a new clearstory roof to provide a minimum 30-year lifespan
- improved natural lighting, including night lighting with a programmable LED system and a perimeter rail system to allow high cleaning without needing manual lifts
- increased formal study space
- reduction in deferred maintenance
- reduction in cooling demand
- increased accessibility

...the new roof provides more light, is esthetically pleasing and is a safer cleaner alternative to the old, with positive feedback received from merchants, visitors and students...

Thelma Meaney
Marketing/Special Projects

Continuing the Approach to Strategic Deferred Maintenance

Available funding has allowed the University to continue its strategic approach to address deferred maintenance through focused improvements and, over time, to move from completion of roofing and life safety concerns to larger interior system renewals.

Methods

- Bundling of project components where appropriate to increase efficiencies and maximize cost-effectiveness is common practice.
- Concentration on key components for renewals is dramatically increasing the number of projects that can be completed (example: IT component focus on SMART Classroom upgrades).
- Trending to long-term reduction of deferred maintenance and reduced FCI's on several facilities will continue.

Thinking

- A second generation of the Energy Management Program is about to begin, enhancing the institution's commitment to sustainability of its facilities and providing further partnering opportunities on deferred maintenance projects.
- Recognition of the power of leveraging in funding is pervasive throughout the institution. This enhances the amount that can be accomplished with limited resources.
- Recognizing the need for long term focused planning and execution continues to support our strategic approach to deferred maintenance renewal projects.

"... the upgrades to the convocation centre lobby have made our area a significant gathering place for students as well as a welcoming area for visitors. It has been thoughtfully constructed, is easy to maintain and will remain current for a long period of time."

Augustana Campus Revitalize

Convocation Entrance

- refreshed and modernized
- acoustic ceiling, flooring, doors, display cabinets were replaced
- walls were repaired and painted

The lobby is the primary entrance to the gymnasium, a meeting place for the majority of the Athletics staff and students, and is now an attractive, much needed addition that supports Alberta Colleges Athletic Conference competitions and Augustana Convocation events.



Convocation Centre Lobby (Augustana)



Universal Access Stadium Carpark Elevator



Education North Student Lounge

Repurpose

Student Common Areas



Augustana Common Lounge

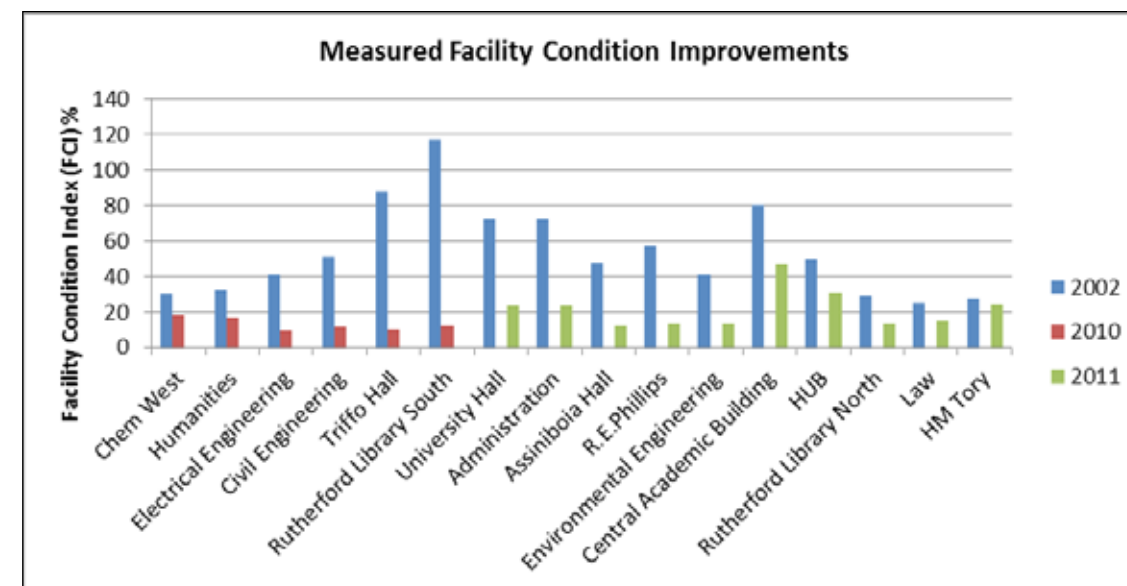


Tory Atrium Green Wall



The addition of the student common space and renewal of the surrounding area in Education has transformed an old corridor area into an open, vibrant, welcoming student gathering space with natural light. The transformation of this space has added benefits with the Faculty Undergrad Student offices now in a more accessible location...

Elaine Holtz, Space & Facilities Admin.



17 facilities with FCI reductions greater than 20 percent

Innovation

• improved winter day lighting • 300-ton cooling reduction • programmable LED lighting