

CAMPUS PLANNING AND DEVELOPMENT COMMITTEE
REPORT TO SENATE
November 25, 2010

Since its last report to Senate (November 26, 2009), members of the Campus Planning and Development Committee (CPDC) have met four times (December 4, 2009, March 5, 2010, April 30, 2010 and October 1, 2010). Noted below is a description of the capital projects that were considered by CPDC (including appointment of architects, allocation of funds, approval of design and awarding of tender). This report also describes other projects, studies and initiatives currently being undertaken by the University. These matters were presented to and discussed by CPDC.

**Part 1. Major New Capital Construction and Major Renovations
(Completed and /or In Progress/Planning Stage)**

Queen's Centre Project

Phase 1 Cost: \$169 million (excluding the underground parking, \$11.840 million)

Architect: Bregman + Hamann Architects, Sasaki Associates Inc. and Shoalts & Zaback

General Contractor: PCL

Project Description: New School of Kinesiology and Health Education, 1 varsity and 2 practice gyms, locker rooms, fitness areas, pool, dance and combative rooms, squash and racquetball courts.

Status: Complete January 2010

Medical School Building

Project Costs: \$76.8 million (includes land purchase)

Architect: Diamond + Schmitt/Shoalts & Zaback Architects

Construction Manager: M. Sullivan & Son Limited

Project Description: To provide a new medical student teaching building on the parking lot adjacent to Abramsky Hall on Arch Street. The new building will provide administration space, student teaching and simulation laboratories and a student lounge. The project has been funded by a joint Federal and Provincial government contribution of \$29 million. Additional funds will be covered by fundraising, of which \$14 million has already been raised.

Status: A new barrier-free entrance will link the new building and the houses at 80/82/84 Barrie Street. This will become the School of Medicine administrative front entrance. The present front entrances to the houses will become secondary entrances. The barrier-free entrance will have a vestibule and elevator. The connection to the houses was done through existing openings, i.e., windows and doors. The houses and the new building will be linked at the 2nd floor. The concrete and penthouse structure are complete. The interior rough-in of the lower level, 1st, 2nd, and 3rd level are complete and the interior is proceeding on these levels. Level 4 rough-in is proceeding. Exterior cladding (curtain and masonry) and penthouse steel and cladding is proceeding and scheduled for completion December 2010. Work has started on 80, 82/84 Barrie Street. The project continues to be 4-6 weeks behind schedule, with respect to the Government's substantial completion requirement of March 31, 2011.

Goodes Hall Expansion

Project Costs: \$40 million

Architect: Ventin Group Architects

General Contractor: The Atlas Corporation

Project Description: The physical expansion will provide the necessary space for Queen's School of Business program to expand, enabling the School to help fulfill Ontario's critical demand for business education.

Status: The project was approved March 2010 and the ground breaking ceremony was held on May 29, 2010. Construction began in mid July 2010, with a targeted completion of December 2011. Renovations to the existing buildings are underway; the first phase was completed in mid-September 2010. At the same time the existing parking lot has been closed and lighting and tree removal has been undertaken. The mass excavation for the new expansion is underway with overburden and mechanically broken rock removal. It

is anticipated that this step will take until the end of October 2010 to complete. It will be followed by the installation of footings for the parking structure and erection of the tower crane.

Isabel Bader Centre for the Performing Arts

Project Costs: \$63 million (land purchase \$1,787,000)

Architects: Snohetta and ema

General Contractor: TBA

Project Description: This project will provide learning, performing and associated space primarily for the Art, Drama, Music and Film and Media departments. Other users of the performance venues would be the Performing Arts Office and other Queen's groups and Kingston arts organizations.

Status: The design development has been completed and signed off by the user departments. March 2010 Queen's presented the project to City Council and on April 6, 2010 the City of Kingston recommended and approved the \$6m expenditure to Queen's as the City's portion of the project. The City Heritage Committee hosted a public meeting on July 26th. The Official Plan amendments and rezoning application were approved by the City's Planning Committee September 2nd and was approved by the City Council on September 7th. The design team is reviewing the City's comments on the site plan application. Site services to the building's footprint will be in place by January 2011.

Queen's disputed the City's Heritage Committee's motion for Queen's to refurbish the existing wooden windows and remove the red brick chimney from the 1920's. City Council's vote of September 21 requires Queen's to refurbish the windows but allows Queen's to remove the chimney, subject to a by-law amendment. The design team intends to reuse some of the interior wood for some of the interior finishes in the foyer as well as some of the large wood structural elements.

Botterell Hall

Project Costs: \$6 million

Architect: Shoalts and Zaback Architects

General Contractor: Cupido Construction Ltd.

Project Description: The renovation includes replacing all glass units on the north façade, east/west façade to the north of the stair wells and all of the glass units on the elevator lobby curtain wall system, cleaning the pre-cast exterior of the north façade and replacing the main entrance doors. The building roof system will be replaced as will 2 existing cooling towers and associated pumps for the HVAC and the freight elevator controls, the domestic hot water heaters and the reverse osmosis machine. Additional emergency showers will be provided. The research expansion will provide a new autoclave under the east amphitheatre deck. There will also be an electrical system distribution study and fire and life safety upgrades.

Status: The north, northeast and northwest facades facing Stuart Street now have new glazing and window trim installed as well as the precast cleaned. The Animal Care renovation is complete. The autoclave suite is to be completed by the end of November.

Macdonald Hall Classrooms

Project Costs: \$1,053,000

Architect: Shoalts and Zaback Architects

General Contractor: Peak Engineering

Project Description: The renewal of four classrooms in lower level of Macdonald Hall includes an interior environmental upgrade (HVAC, illumination, acoustics). The teaching technology has been upgraded and the seating improved. The design is inclusive for persons with disabilities and is sustainable in the choice of materials, finishes and processes.

Status: The classrooms are complete. Work on washroom and the computer lab continue.

Queen's/KGH Parking Garage

Project Costs: \$7.5 million

Consultant: Construction Control Inc.

General Contractor: CanMar Contracting Ltd.

Project Description: The repairs include structural concrete slab, column and beam restorations, as well as repairs or replacement to the ventilation system, fire alarm system, lighting and emergency power

systems. The project will be done in several phases to minimize the impact on parking. The Rugby Field on top of the parking structure will be unusable for 1 season. Athletics is working on an alternate field location.

Status: The project budget was presented and approved by Queen's and KGH Boards.

Reactor Materials Testing Laboratory (RMTL)

Project Costs: \$17.5 million

Architect: TBD

General Contractor: TBD

Project Description: To locate a reactor materials testing lab at Grant Timmins Drive. The RMTL will simulate nuclear reactor conditions using accelerator technology (rather than a test reactor), allowing more economical and far reaching testing of current and advanced materials.

Status: The Charge to the Architect has been approved. Architect approval will take place in December.

Teaching Space Complex

Planning Costs: \$2.6 million

Architect: TBD

Contractor: TBA

Project Description: A new state-of-the-art classroom complex is proposed in order to provide the foundation for Queen's to increase its enrollment, enhance innovation in teaching and learning, and to prepare students for a rapidly changing knowledge economy. The inclusion of advanced communication technology will allow for pedagogical innovation in the use of electronic media, as well as allow e-learning through lecture capture and video conferencing.

Status: A joint working group consisting of representatives from Physical Plant Services, Campus Planning and the University Provost and the University Registrar have been working to determine the mix and size of teaching spaces that would be required in a new facility. An anonymous donor has given \$2.6M to fund the drawings. The Charge to the Architect has been approved.

Gordon-Brockington Hall

Project Costs: Current project estimate \$16 million

Architect: Shoalts & Zaback/Gansen Lindsay

Contractor: TBA

Project Description: This project will provide new furniture and finishes in all student rooms and upgrades to the corridors including new lighting and ceiling. The existing washrooms will be demolished and replaced with new fixtures and finishes and ventilation. Common rooms will be located on each student floor as recommended in the Redevelopment Master plan. The main floor will be redeveloped for better utilization of the existing spaces.

Status: The project is on hold until approved by PVP's.

Part 2: Planning Studies, Minor Renovations, Landscape, Sustainability Initiatives and Other Items Submitted to the CPDC for Approval and/or Information:

Planning Studies:

Campus Plan

The Campus Plan will be aligned with the Academic and Financial Plans. It will incorporate sustainability, accessibility, fiscal responsibility, heritage and technology. Various scenarios for overall physical growth, reduction, or remaining the same will be explored. Development options and enhancing academic links to off-campus locations will be examined.

Capital Project Business Case

The Major Capital Projects Approval Process is designed to bring departments and committees together in the initial project planning process. The process will get feedback before a project is approved. The steps in the process are: Step 1: pre-approval for proceeding with a business case, Step 2: completion and presentation of the business case for internal management review and Step 3: management approval for presentation to the Board of Trustees.

VFA Facilities Condition

The campus facilities condition audit that was initiated in early 2010 is now near completion. Queen's participated in an RFP with several other Ontario universities and engaged the company VFA Canada Corporation to perform the audit. It is anticipated that all audits will be completed by the end of September and that the data will undergo quality assurance checks in October and be ready for use by the end of the current calendar year. The data collected to date shows a marginal increase in the deferred maintenance backlog over the same audit completed in 2001.

Advanced Research Innovation Park (ARIP) Phase 2

Project Costs: \$350,000

Architect: Urban Strategies Inc.

Project Description: To plan for the development of the Innovation Park Phase 2. The Innovation Park Master Planning Services project will provide working/living documents that will position the Park for physical development. The specific objective is to develop key materials that will serve to: 1) direct initial investments in and specific servicing/development of the land, and 2) attract partners, funding and occupants to enable construction of the first buildings on the land and the continued long term development of Phase 2.

Project Status: The architects and user committee have met through the summer. A visioning workshop was held in July to look at objectives, aspirations, preliminary ambitions, principals and strategic direction. A workshop was held in October with a summary presentation based on the first visioning workshop and explored options and confirmed direction.

West Campus Fields Project

Planning Costs: \$750,000

Architects: HOK

Project Description: To revise the master plan to incorporate the stadium and arena complexes at the west campus. This is currently underway with a 3rd party consultant.

Status: The University is reviewing various options for this project including a P3 agreement.

Regional Assessment and Resource Centre (RARC)

Campus Planning has been working with groups across campus to find suitable accommodation for RARC (a group that does affordable and quality psychological education assessments of post-secondary students with learning difficulties). This group is funded directly by the Province and receives funding for accommodation. They have been located in a house but could better deliver its service from a central accessible location on campus.

The preferred solution required improvements to other departments as well. The Library Central Technical Services (CTS) Group on the lower level of Mac-Corry will move to a renovated area at the lower level of Stauffer Library. 7,200 sq ft at Mac-Corry will be renovated. RARC will fund the work for their group and the University will fund the move of CTS to Stauffer Library.

Advanced Research Innovation Park (ARIP) Phase 1

HOK Architects were designers for the Green Chemistry Commercialization Centre (GCCC) to fit-out / accommodate administration space, scientist workstations, science laboratory workspace, shared laboratory equipment and scale up laboratory, as part of its overall functional space program for this research project, which has received CFI funding.

Applied Science Building

The Faculty of Applied Science Building Committee continues to review the project scope and next steps.

Minor Renovations:

Jackson Hall - Human Media Laboratory

Project Costs: \$560,000

Architect: Shoalts and Zaback Architects

General Contractor: TBD

Project Description: The renewal includes a computer lab, meeting room, two equipment rooms, experiment room, workshop, kitchen, shower, and 5 work pods.

Status: Design completion expected October, 2010, but ventilation and obtaining sufficient electrical power in the building remain to be resolved.

Window Replacement

Project Costs: \$400,000

Consultant: EPG Applied Building Sciences Ltd. / Shoalts and Zaback Architects

General Contractor: AGC Glass

Project Description: This work includes the replacement of all the windows and roofs of the glazed staircase on the Union Street side of the Robert Sutherland Building; completion of the ongoing window replacement on the west side of Ellis Hall; and replacement of numerous window failures on Mackintosh-Corry Hall, including the glazed link to Robert Sutherland Building.

Status: The project is to be completed in November 2010.

Stone Repairs

Project Costs: \$400,000

Consultant: EPG Applied Building Sciences Ltd. / Roney Engineering Limited

General Contractor: A. Santin Mason Contractor Ltd.

Project Description: This work includes re-pointing and repairs of the limestone on several buildings.

The scope of work varies by building, which includes Douglas Library, Ontario Hall, Grant Hall, Kingston Hall, Theological Hall, and Fleming Hall.

Status: This project is complete.

Carruthers Hall Project

Project Costs: \$60,000

Architect: Norr Limited

Contractor: TBD

Project Description: The School of Public Health has established a new Masters Program (MPH). The MPH Program is located at Carruthers Hall on the 2nd and 3rd floors. A requirement of the program is to provide accessibility to the 1st floor. As the building requires overall remediation to make it fully accessible, it was decided to install a temporary lift in the interim. Recognizing the heritage importance of the building the temporary lift is to be inconspicuous in the overall view, but will be well signed and provided with an off the main road access for vehicles. Funding is provided from the University Campus Renewal Fund.

Status: The City Heritage Permit Application has been submitted. Construction will begin immediately upon Heritage Committee approval. Construction is expected to take 6 weeks.

Disposition of Real Estate:

The University has sold 149 A & B Collingwood Street and 196 and 198 Union Street. The net proceeds from the sales will be allocated to the central fund of the University.

Campus Landscape Initiatives:

Campus Grounds Advisory Committee (CGAC)

Brochures: A new brochure “Historic Streets of Queen’s” was made possible by Mr. Mortimer Abramsky. The brochure is on the Queen’s website, and is also available at the Agnes Etherington Art Centre and the Kingston tourist information centre. Work has begun on a brochure for Heritage Buildings and Architecture as well.

Signs and plaques: Information signs will be installed at the Bioscience Complex native garden and the Fescue patch planted near Stirling Hall. A plaque with historical information about the area will be installed at Deacon Walk. A dedication plaque to honour Principal William R. Snodgrass will be installed at the arboretum.

A sculpture donation from Ms. Jennifer Macklem is being planned for the front lawn of the Katherine Bermingham Macklem House, 18 Barrie Street.

Queen’s Accessibility Committee (QAC)

The Accessibility Committee has approved a motion on the revised Terms of Reference for the committee to submit to the Provost/VP group for approval and implementation in the next committee cycle (starting September 1, 2010).

The QAC worked with SPH Planning & Consulting (SPH) on the Queen’s Accessibility scan. SPH conducted a physical survey of the campus grounds and building interiors to support the University’s objective of being accessible for people with disabilities in a manner that respects their dignity, and allows for full integration and participation on campus. Disabilities include mobility and physical dexterity, visual (blindness, low vision, including the use of service animals), aural (deaf, deafened and hard of hearing), and learning as it applies to way finding and ability to engage in educational sessions. The data compilation of the scan of the University’s buildings is on-going. QAC is looking to establish working committees to better address physical accessibility on campus.

The Principal presented the Steve Cutway Accessibility Award to Queen’s recipients Helen Connop, Faculty of Law and Michele Chittenden, Adaptive Technology Centre.

Outdoor Art Advisory Committee (formerly Site Art Advisory Committee)

The Campus Planning and Development Committee reviewed and approved the revised Outdoor Art Policy and Procedures document.

Signage Policy

A committee is being formed to review the current Signage Policy. Areas to be addressed include new requirements for health and safety, improved way finding, branding, donor recognition and non-conforming signs.

Sustainability and Energy Management Initiatives:

Sustainability

On November 26, 2009 Queen’s signed the Council of Ontario Universities (COU) environmental commitment statement, “*Ontario Universities Committed to a Greener World: A Pledge from the Executive*

Heads". The statement outlines sustainability pledges that each signatory University commits to – from energy efficiency and waste reduction, to sustainable purchasing and construction policies.

Queen's Sustainability Advisory Committee will develop a Sustainability Strategic Framework, a guide for action to meet the COU pledge and to address climate change on our campus. Having completed a measurement of our greenhouse gas (GHG emissions in summer 2009, Queen's is setting a plan for where reductions can be made and has committed to re-measure annually.

The organic waste collection program implemented July 2009 had a relatively successful first academic year. An organic waste weight audit in November demonstrated that an average of 8300 kg of material is diverted to the local compost facility each month. The program has also expanded to meet differing needs on campus with the inclusion of an onsite composting machine in Ban Righ kitchen and vermicomposting units in some student residence buildings.

Bottled Water Ban

In April, Principal Woolf committed to banning the sale of bottled water on campus within 5 years. Working with various partners, Queen's Sustainability has developed an implementation plan that can potentially reduce the time line from 5 to 2 years and has identified the necessary steps and infrastructure updates that will be required. The first phase of the plan (water testing for lead) was completed in September.

Orientation

Queen's Sustainability once again participated in Orientation activities. As well as financially supporting the student reusable water bottle program, the office participated in the Sidewalk Sale with an information booth and hosted an activity on the free day that included an informative trash-toss game, a talk about Queen's Sustainability and an opportunity to sign the Sustainability Pledge.

Free Cycle

In order to strengthen the existing furniture reuse program, the University has joined an item exchange network called Freecycle@Work. This online network provides University staff, faculty and students with a vehicle for promoting reuse of campus assets and an alternative to new item acquisitions. All items posted are free of charge and interested users make their own arrangements to take delivery. Online exchanges help avoid multiple item moves and ease the burden on the furniture storage facility.

Community Garden

This past spring, Queen's Sustainability along with partners from the AMS, SGPS, Faculty of Education and Sodexo established a community garden at West Campus. The first year has been a success, with all 16 garden plots rented to individuals and 2 larger plots were used by Sodexo and the Faculty of Education.

Energy Management Initiatives

Lighting: PPS continues lighting retrofit projects on campus. The lecture theatre in Etherington Hall is the next location that LED technology will be installed. At the Innovation Park, the last phase of lighting retrofits began in September. This will complete the full site retrofit of lighting in the entire complex which will save approximately \$5,400 annually. Lighting projects that are currently in design include the Botterell Hall loading dock, Ontario Hall Fine Art painting theatre, the Central Heating Plant and occupancy technology for Chernoff lecture theatre.

Campus Solar PV Pilot Project: Since completing an in-depth analysis for single independent systems on a small number of campus rooftops, PPS has taken steps to gather information on a campus wide deployment of Solar PV with the recent issue of an RFI to interested solar developers across Ontario. The RFI closed mid-August and is providing information for a path forward to determine and execute the best solution for Queen's while taking advantage of the current rates in the Ontario Power Authority Feed-In Tariff (FIT) program. The RFP went out on October 8, 2010.

Steam Metering Installations: Steam is the primary heating source for the University. TPPS installed several new meters to allow accurate tracking of steam usage in all campus buildings.

OAPPA Energy Committee Completes Utility Benchmarking Project: The Committee, chaired by John Witjes, PPS Director of Engineering and Operations, participated in a two-year benchmarking study funded by the Ontario Power Authority's Conservation Fund and OAPPA to collect utility data for approximately 1,100 of the large campus buildings. The results will assist future energy planning and the development of Best Practices initiatives within the University sector. In addition, the project allows the universities to formulate energy action plans in accordance with requirements of the recently enacted Green Energy and Economy Act.

Residence Energy Challenge: The 3rd annual residence energy challenge was organized by students, Residence staff and PPS. The total savings for this year's month long challenge was 30,334 kWh which is about the same that 3 typical Ontario households would use in an entire year, approximately \$3,033.

Earth Hour: More than 200 people from Queen's and the Kingston community came out to celebrate earth hour at the Queen's Observatory. They enjoyed informative talks about light pollution, participated in a night of star gazing and had the opportunity to use the observatory telescope. There was a 3.8% reduction in kWh consumed on campus during earth hour, up from 3.2% reduction in 2009. This is the equivalent of turning off nearly 2500 60w light bulbs for earth hour.

Bedrock to Blue Sky: PPS partnered with Summer Engineering Students to develop a complete digital Building Information Model (BIM) for Gordon-Brockington Hall residence, the next residence scheduled for a major retrofit. The BIM allows for very accurate simulations of the impact of making various changes to the buildings envelope, mechanical and electrical systems and will predict how they will impact the energy usage within the building. This allows for several "what if" scenarios for various energy efficiency technologies to be evaluated for value for money. The model will also provide designers and architects with a very substantial amount of information to work with.