UNIVERSITY OF TORONTO

CAMPUS & FACILITIES PLANNING

February 2018

Project Planning Report Outline

The Project Planning Report (PPR) is a report of the Project Planning Committee specifying the details of a University of Toronto capital project with a Total Project Cost (TPC) value of $5,000,000 or greater. For projects with a lesser value a modified Project Planning Report is required under certain circumstances, such as when the services of a design consultant will be required, when there is a significant repurposing of space or as determined in consultation with the Office of Campus and Facilities Planning.

Projects with a TPC value less than $5,000,000 are approved by the Capital Project and Space Allocation Committee.

Projects with a TPC value greater than $5,000,000 require approval by the Planning & Budget Committee and if more than $10,000,000 or where borrowing is required, approval by Business Board is sought as well. Please refer to the Policy on Capital Planning and Capital Projects for a detailed description of the various paths of approvals.

[http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/Policy/capplan.pdf](http://www.governingcouncil.utoronto.ca/Assets/Governing%2BCouncil%2BDigital%2BAssets/Policies/Policy/capplan.pdf)

For clarification on preparing a PPR, please contact the office of Campus & Facilities Planning.
416 978-5515

# Executive Summary

(required for every PPR submission, to be written once PPR is complete)

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# Project Background

## Membership

(as per documentation submitted to the CaPS Executive Committee)

## Terms of Reference

(as per the documentation sent to the CaPS Executive Committee)

## Background Information

(context and supporting rationale for project; include previous approvals, key dates)

## Existing Space

#### Existing space

(overview by building, department, category of space, or as most relevant for the project)

#### Occupant profile

(who/what will be served by the project; benchmark current activities and identify approved future activities (to include existing and approved FTE students, faculty complement, etc.)

# Project Description

## Vision Statement

 (aspiration for the proposed capital project)

## Statement of Academic Plan

(statement of academic needs and programmatic requirements, including approved changes to programs, staffing and student numbers, etc., as related to the capital project)

## Space Requirements, Program and Functional Plan

#### Space Requirements

(as generated by a utilization analysis using the COU or university space standards or any other guidelines or benchmarks used for elements not addressed in the COU standards (i.e. regulation size of athletic facilities, day nurseries act for ECE spaces, etc.). Should include a table comparing the space generated by the COU space standards and the proposed space program. If required, justify any differences between the two. (Detailed analysis should be provided in an appendix). )

and

(comparison by category of space, of the existing allocations and the proposed space program. (identify change/growth).)

#### Space Program

* Description of the space program elements, qualitative requirements, and adjacencies and programmatic relationships
* Detailed tabular listing of proposed space program showing all assignable spaces
* Identification of renovated areas and new construction as well as phasing, if appropriate
* Estimated gross area required and nasm to gross assumptions
* For renovation of existing space, demonstration of appropriate fit of program to space available to include nasm to gross efficiencies and % demolition required.

#### Functional Plan

* Functional space allocation diagram, if appropriate
* Potential stacking plan/building organization (if applicable)

## Building Considerations

#### Standards of construction

(quality for exterior design and interior finish (i.e. basic, economical, standard, high tech, state of the art, flagship, midrange, showcase, green, sustainable, LEED certified). A reference to a peer building as a model for these issues may be included.)

#### Building characteristics and massing

* Floor to floor heights
* Basement
* Mechanical penthouse
* Structural complexity and built form
* Material selection

#### Elevators

#### Sustainability design and energy conservation

Integration of environmentally sustainable principles into buildings, landscapes and transportation options, has been a high priority in discussions with both campus and neighbouring communities. At a minimum, all new buildings shall be designed to meet the Toronto Green Development Standard, Tier 1 and LEED Canada – NC Silver rating with at least 10 points achieved for “Optimizing Energy Performance”, 2 points achieved for “Enhanced Commissioning” and 4 points achieved for “Water Use Reduction”. This will significantly reduce the building’s operating costs over its lifetime. Further, the project must comply with City of Toronto Tier 1.

Please refer to the City of Toronto Green Roof Bylaw No. 583-2009, Chapter 492 for specific green roof requirements.

Sustainable strategies to be considered during the design phase include:

* Heat recovery systems
* Low flow and water efficient fixtures
* Grey water re-use
* Super insulated low albedo roofing
* LED lamps
* Solar shading
* High performance building envelope
* Equipment and systems must be put in place so that the long-term energy and water efficiency can be monitored and verified.

As of 2016, UofT proposed the following Design Standards for Energy Efficiency for New Construction: Capital projects must meet Ashrae 90.1-2013 + 20% at a minimum. Projects are required to add components which have payback of less than 15 years to reach an Ashrae 90.1-2013 + 40%.

ASHRAE provides Standards for all components within buildings – HVAC, windows, lighting, modeling, envelope, ventilation and reviewed by industry experts. It allows for prescriptive and performance based compliance paths to meet the minimum energy use. Toronto Green Standards (TGS), OBC\*\* and LEED use ASHRAE 90.1 to define their energy efficiency standards.

Building energy performance modeling during the design of a new building shall serve several purposes. The primary objective is to inform design decisions in a way that guides the designs toward the University’s goals of sustainable energy efficiency, reduced carbon footprint and optimal long-term building performance and comfort. It is recognized that the detail and resolution of the performance assessment through modeling will refine as the design progresses from concept through design development to tendering and then on-going measurement and verification.

Energy modeling coupled with Life Cycle Cost Analyses will serve as tools throughout the design phases to evaluate design options and make appropriate choices that support the University of Toronto’s pursuit of sustainable reduced energy use and lower carbon footprint with long term built space comfort.

At each design phase model submission, the *Project Consultant Team* will be expected to submit the energy model with EUI’s to test the energy performance for alignment with U of T Policy and standards. Please see Appendix 2 for UofT’s Energy Modeling Guidelines.

#### Accessibility

New or redeveloped exterior, and some interior (i.e. service counters, fixed queuing guides, and waiting areas), public space, must comply with Part IV.1, Design of Public Spaces Standards (Accessibility Standards for the Built Environment, Integrated Accessibility Standards of the Integrated Accessibility Standards, O.Reg. 191/11, <http://aoda.hrandequity.utoronto.ca/buildings/>**)**.   This would include approaches to new buildings.    Maintenance, environmental mitigation, or environmental restoration excluded from this requirement.

Public space projects affecting exterior paths of travel, recreational trails, outdoor play spaces, or accessible on-street parking must include consultation with the public and persons with disabilities pursuant to aforementioned standards.

For additional information contact the University of Toronto’s AODA Office. <http://aoda.hrandequity.utoronto.ca/>

#### Personal safety and security

#### Signage, donor recognition

#### Non-assignable space

* Listing of special non-assignable spaces (janitor closets, lunch rooms and change rooms where required by collective agreement, network closets, delivery areas/loading docks, etc.)

#### Mechanical/ Electrical and Data

#### Environmental Health and Safety

* Lighting
* Environmental emissions (MOE submission considerations)
* Safety (supply ventilation, chemical hazard quantity, specialized equipment and venting requirements)
* Special safety hazards (biological, radiological, highly toxic chemicals)
* Special considerations for venting or sewage traps for hazardous chemicals
* Safety design for receiving areas and loading docks
* Ergonomic design of mechanical rooms

Projects that include renovations of existing buildings will also be required to address a number of additional issues.

When a site/site options have been identified, pre-engineering reports and feasibility studies on existing facility condition and constraints may be required to assess the following:

* Facility condition assessment
* Deferred maintenance issues
* Building systems improvement requirements
* Code and environmental requirements
* Hazardous materials disposal
* Decommission of Laboratories
* Environmental health and safety
* supply ventilation controls
* hazardous emissions to environment
* use incompatibility
* pre-approval from CNSC for radioisotope work
* preapproval from Public Health Agency of Canada for biological work
* laboratory change of use detail
* Identification of areas of demolition
* Project boundaries
* Phasing plans
* Impact on existing occupants
* Coordination with other renovation projects in building
* Feasibility of LEED certification

## Site Considerations

#### Site context

(site boundaries, conditions and constraints; relationship of new construction to adjacent buildings, structures, open spaces)

#### Master Plan

#### Zoning regulations

#### Environmental issues, regional conservation, Ministry of the Environment

#### Landscape and open space requirements

#### Site access

(vehicular and pedestrian, to include drop off, pick up, parking, transit)

#### Heritage status

#### Soil conditions

#### Site servicing; existing and proposed

#### Hazardous waste disposal

(asbestos, biological, radioisotopes and chemicals)

## Campus Infrastructure Considerations

#### Utilities (electrical capacity, water, gas, steam lines)

#### Sewer and storm water management

#### Bicycle parking

## Secondary Effects

* Demolition of existing structures
* Staging requirements
* Impact on other buildings or projects in the sector (noise, access etc.)
* Reallocation of vacated space
* Parking, loss of and for UTM/UTSC increase in by-law requirements

## Schedule

Project milestones are to be identified for:

* governance approval
* consultant selection
* schematic design
* design development and contract drawings
* tender and award
* mobilization and construction
* commissioning and moving
* full operational occupancy by division

Milestones are to be identified both as duration (in weeks or months) and as dates. Include phasing and staging dates, if required.

# Resource Implications

## Total Project Cost Estimate

The total estimated cost for the project includes estimates or allowances for:

* construction costs (assuming a lump sum type of tender to qualified general contractors in the month of (date)

*(if other contracting strategies are being considered for a particular project a rationale and description should be provided)*

* contingencies
* taxes
* hazardous waste removal

decommission of hazardous substances

disposal costs for hazardous materials

release of area (hazardous materials) for unrestricted re-use

* site service relocates (specify)
* infrastructure upgrades in the sector (specify)
* secondary effects
* demolition
* landscaping
* permits and insurance
* Professional fees, architect, engineer, misc consultants (ie. LEED etc.), project management.
* computer and telephone terminations
* moving and staging, decommission of labs being vacated
* furniture and equipment
* miscellaneous costs [signage, security, other]
* commissioning
* donor recognition
* escalation
* Financing costs during design & construction. refer to cash flow estimate

## Operating Costs

## Other Related Costs

(include identification of issues that could impact cost or implementation)

## Funding Sources

## Ancillary Projects and Joint Venture Partnerships require Business Plans and Operating Agreements

##### APPENDICES:

1. Existing Space Inventory
2. Space Utilization and Requirement Analysis Room Specification Sheets (on request)

 - New construction

 - Renovation (include assumptions regarding reuse of furniture and equipment)

1. Equipment/Furnishings schedules (on request)
2. Total Project Cost Estimate (on request to limited distribution)
3. Background reports/studies